# CGP Seasonal Dry Period and Frozen Conditions Calculation Guidance

Purpose: To assist in determining the "Seasonal Dry Period" and "Frozen Conditions" dates for construction projects that requires coverage under the EPA Construction General Permit (CGP). This guidance may also be used to assist in determining other useful CGP related decisions (optimal seeding/stabilization months or window, assist in determination of a waiver of the winter shutdown, etc.)

These methods are not the sole source for determining the "Dry" and/or "Frozen" periods, but are meant to offer guidance in determining those seasons in your particular project area. Other methods to determine the above mentioned periods may be suitable. Note that this guidance may not be applicable to all areas, regions, or ITD Districts depending on local conditions or District requirements.

## **Summer/Seasonal Dry Period Calculator**

The "seasonal dry period" may be used to reduce inspection frequencies during periods in arid, semi-arid, or drought stricken areas (as detailed in section 4.4.2 (page 21) of the 2017 CGP). Also see ITD 2950 form (SWPPP Template). Note that if it is the seasonally dry period or a period in which drought is occurring, you may reduce the frequency of inspections to once per month and within 24 hours of the occurrence of a storm event of 0.25 inches or greater.

#### 2017 CGP, Appendix A- Definitions:

"Arid Areas" – areas with an average annual rainfall of 0 to 10 inches. "Semi-Arid Areas" – areas with an average annual rainfall of 10 to 20 inches. "Drought-Stricken Area" – for the purposes of this permit, an area in which the National Oceanic and Atmospheric Administration's U.S. Seasonal Drought Outlook indicates for the period during which the construction will occur that any of the following conditions are likely: (1) "Drought to persist or intensify", (2) "Drought ongoing, some improvement", (3) "Drought likely to improve, impacts ease", or (4) "Drought development likely". See http://www.cpc.ncep.noaa.gov/products/expert\_assessment/sdo\_summary.php.

#### ITD Guidance:

Use the Western Regional Climate Center data: <u>https://wrcc.dri.edu/</u> and find the months where the average precipitation drops *significantly*. This is typically during the summer and fall months (May-October).

- The direct link for the table for Idaho Average Monthly Precipitation Table: <u>https://wrcc.dri.edu/Climate/comp\_table\_state\_show.php?stype=ppt\_month\_avg&</u> <u>sstate=id&stitle=Monthly+Average+Precipitation&sparent=a-l</u>
- 2) Or go to <u>https://wrcc.dri.edu/</u> and click Historical Data-> Climate Summaries -> Western U.S. Comparative Summaries-by state-> Comparative Data for States A-L, then find Idaho across the X-axis, and find the Monthly Average Precipitation on the Y-axis, and click the green checkmark which will reveal a table which will show data for many cities and towns across Idaho.
- 3) Find the location closest to your project.
- 4) Calculate the Mean Monthly Average (MMA) for your location using the YEAR divided by 12.

- 5) Find the consecutive months in which the monthly average precipitation falls under the MMA you just calculated. Use those consecutive months for your location's "seasonal dry period".
- 6) Consecutive months with precipitation less than the MMA should be used. Two examples are shown below:

Example using Kuna, ID:

MMA = Using 9.82 YEAR average inches/12 (months) = .818 inches

Find the consecutive months with an average precipitation < 0.818 (highlighted below)

JAN FEB MAR APR MAY JUN <mark>JUL AUG SEP OCT</mark> NOV DEC YEAR

KUNA 2 NNE | 1948-1996 | 1.11 0.77 0.91 0.97 1.16 0.82 0.22 0.33 0.52 0.64 1.25 1.12 9.82

July, August, September, and October would be Kuna's "Seasonal Dry Period".

Use July 1 through October 31 for the project's "Seasonal Dry Period" on ITD Form 2950.

Example using Bliss Idaho:

MMA= Using 9.46 YEAR average inches/12 (months) = .788 inches

Find the consecutive months with an average precipitation <.788.

Note that April's precipitation is below the MMA, but the following month (May) is not, so only the consecutive months of June-October should be used.

		JAN	FEB	MAR	<mark>APR</mark>	MAY	<mark>JUN</mark>	JUL	AUG	SEP	OCT	NOV	DEC	/EAR
BLISS 4 NW	1931-2000	1.33	0.97	0.92	<mark>0.74</mark>	0.85	0.72	0.22	0.23	0.42	0.60	1.28	1.18	9.46

### **Frozen Conditions Calculator**

If you are reducing inspection frequency and suspending construction activities due to frozen conditions <u>as detailed in section 4.4.3 (pages 21-22) of the 2017 CGP</u> you may temporarily suspend inspections on your site until "Thawing Conditions" occur.

#### 2017 CGP, Appendix A- Definitions:

"Thawing Conditions" – for the purposes of this permit, thawing conditions are expected based on the historical likelihood of two or more days with daytime temperatures greater than 32°F. This date can be determined by looking at historical weather data. Note: the estimation of thawing conditions is for planning purposes only. During construction the permittee will be required to conduct site inspections based upon actual conditions (i.e., if thawing conditions occur sooner than expected, the permittee will be required to conduct inspections at the regular frequency).

#### ITD Guidance:

Use the Western Regional Climate Center data: <u>https://wrcc.dri.edu/</u> and find the months where the monthly average temperature is below freezing.

- The direct link for the table for Average Monthly Temperatures: <u>https://wrcc.dri.edu/Climate/comp\_table\_state\_show.php?stype=temp\_month\_avg&ss\_tate=id&stitle=Monthly+Average+Temperatures&sparent=a-l</u>
- 2) Or go to <u>https://wrcc.dri.edu/</u>Click Historical Data-> Climate Summaries -> Western U.S. Comparative Summaries-by state-> Comparative Data for States A-L, then find Idaho across the X-axis, and find the Monthly Average Temperatures on the Y-axis, and click the green checkmark which will reveal a table which will show data for many cities and towns across Idaho.
- 3) Find the location closest to your project.
- 4) Observe the consecutive months where the average monthly temperature falls under freezing (32° F).
- 5) Use those months for your project's "frozen conditions"

Example using Island Park, ID:

 JAN FEB MAR
 APR MAY JUN JUL AUG SEP OCT NOV DEC

 ISLAND PARK | 1937-2010 |
 14.7
 18.2
 24.2
 34.9
 45.5
 53.4
 60.9
 59.6
 50.7
 40.0
 26.1
 16.5

November through March could then be used as the "Frozen Conditions" period on <u>ITD 2950</u> to reduce or suspend the inspection frequency according to the CGP, as long as all other conditions are/will still be met (land disturbance is suspended, all disturbed areas stabilized, etc.).

**Remember:** If unexpected weather conditions (such as above freezing temperatures or rain events) make discharges likely, you must immediately resume your regular inspection frequency as described in the 2017 CGP, Parts 4.2 and 4.3, as applicable.