[**Instructions**: Each data package must populate this readme template. **Delete the instructions (marked with brackets throughout) before saving.** If using the template in Git, save as .md. If starting with the SFA GitLab template, this template is pre-populated. **For inclusion in your ESS-DIVE data package, save as .pdf.**The readme is not limited to the information or sections described below. No matter what is included in the readme file, the documentation should be written for an audience that has never seen the data package contents before. Descriptions should be written as clearly and concisely as possible. We strongly recommend having someone review the content before finalizing. We strongly recommend looking at other RC SFA data packages on ESS-DIVE to see what they have written.]

[**Instructions for data packages**: Follow instructions for a [manuscript package](https://pnnl.sharepoint.com/:w:/r/teams/SubsurfaceBiogeochemicalResearchSFA/_layouts/15/Doc.aspx?sourcedoc=%7B3BAFC8FC-ACCA-4B2C-ACF3-D9E92A290A05%7D&file=How-to-publish-a-manuscript-associated-data-package.docx&action=default&mobileredirect=true) or talk to Amy Goldman.]

|  |
| --- |
| **Title** |

[A Meta-Analysis of the Influence of Climate and Time Since Burn on Stream Biogeochemical Responses to Wildfire.](https://scholar.google.com/citations?view_op=view_citation&hl=en&user=anHrazUAAAAJ&citation_for_view=anHrazUAAAAJ:u5HHmVD_uO8C)

|  |
| --- |
| **Summary** |

**[Section Required]**

This data package is associated with the publication “A Meta-Analysis of the Influence of Climate and Time Since Burn on Stream Biogeochemical Responses to Wildfire” submitted to ***NAME OF JOURNAL* (Cavaiani et al., 2024**) **LINK OF PRE-PRINT.** The study aims to understand water-quality related effects influenced by fires across different climates, time since fires and across different burn percentages. Here we synthesize biogeochemical responses to wildfires using meta-analytical techniques to evaluate the effect size between reference and fire-influenced sites from **42 studies, spanning 3 biomes and 85 watersheds.** This data package is associated with the GitHub repository found at: “https://github.com/river-corridors-sfa/rc\_sfa-rc-3-wenas-meta”

|  |
| --- |
| **Brief Overview of Methods** |

To collect peer-reviewed publications that reported on the effects of wildfire on river corridor biogeochemistry, we conducted a formal literature search using the keywords: “wildfire” OR “fire” AND “dissolved organic carbon” OR “nitrate” AND “concentration” AND “export” OR “discharge” OR “stream” OR “river” or “creek” OR “watershed” on Scopus and Web of Science yielding 226 and 219 results respectively. We specifically targeted publications that included a wildfire, was located in North America, and had observational stream chemistry data for both a control and a fire-influenced watershed. Publications that only reported median values were excluded. The exclusion criteria yielded 42 studies focused on river-corridor biogeochemistry.

|  |
| --- |
| **Data Package Structure** |

**[Section Required]**

This data package contains 4 primary folders that include the following: 1) Metadata, 2) 3) 4). The package contains a single flmd file. Each primary folder…..Please see flmd.csv for a list of all files contained in this data package and descriptions for each. Data dictionaries for csv files have \_dd” appended to the file names.

[**Instructions**: SFA data packages are required to follow ESS-DIVE Reporting Formats. Follow the [step-by-step ‘how to’ instructions](https://pnnl.sharepoint.com/:w:/r/teams/SubsurfaceBiogeochemicalResearchSFA/Shared%20Documents/General/SFA%20Data%20and%20Software%20Management/How-to-Publish-Data-Package.docx?d=wced5db769f7e4d328434ea7ad7350d59&csf=1&web=1&e=Px7pHV).]

[**Instruction:** List and explain specific folders and/or files OR include the following sentence or something similar in your readme: “Please see [name of FLMD csv] for a list of all files contained in this data package and descriptions for each. Data dictionaries for csv files have \_dd” appended to the file names.”]

|  |
| --- |
| **Citations and Acknowledgements** |

**T**his research was supported by the U.S. Department of Energy (DOE) Office of Science, Biological and Environmental Research (BER) Program, Environmental System Science (ESS) Program (<https://ess.science.energy.gov/>) through the Pacific Northwest National Laboratory (PNNL) River Corridor Science Focus Area (SFA). PNNL is operated by Battelle Memorial Institute for the DOE under Contract No. DE-AC05-76RL01830.

|  |
| --- |
| **Contact** |

**Jake Cavaiani, jake.cavaiani@pnnl.gov**

|  |
| --- |
| **Change History** |

**[Section Required When on ESS-DIVE]**

**[Instruction**: **NOTE: this section only needs to be included in the ESS-DIVE data package readme. It does not need to be included in the GitLab/GitHub readme. The purpose is to indicate if you have revised a published data package after it has been published. Populate row 1 during first publication. Populate row 2 and beyond as needed if revisions are done.]**

|  |  |  |
| --- | --- | --- |
| Version 1 | [Insert Date] | Original data package publication |
|  |  |  |