Generalized_Function

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Loading Data

```
#dataset with stream reach code and lat/long for desired river
file_base <- "/Users/caelum/Library/Mobile Documents/com~apple~CloudDocs/NAU/Research/AZBFI_Manuscript/

River_Points <- read_csv(paste0(file_base, "SaltRiver/SaltRiver_points.csv"))
```

```
## Rows: 5382 Columns: 3
## -- Column specification --------------------------------------------------------
## Delimiter: ","
## dbl (3): Reach_Code, Lat, Long
##
## i Use `spec()` to retrieve the full column specification for this data.
## i Specify the column types or set `show_col_types = FALSE` to quiet this message.
```

```
#dataset of all predictors, keyed to HUC8 number
HUC_Predictors <- read_csv(paste0(file_base, "/VariableData/HUC_Variables/HUC_Dataset.csv"))
```

```
## Rows: 84 Columns: 48
## -- Column specification --------------------------------------------------------
## Delimiter: ","
## chr  (1): NAME
## dbl (47): HUC8, Area_m, AREA_KM2, SLOPE_DEGREES, ELEVATION_MASL, ET_MM, SOIL...
##
## i Use `spec()` to retrieve the full column specification for this data.
## i Specify the column types or set `show_col_types = FALSE` to quiet this message.
```

```
r <- rast(x = "/Volumes/Mroczek,Caelum/Data/HUC8_raster.tif")
r <- project(r, "+proj=longlat")

p <- vect(River_Points[5,], geom=c("Long","Lat"))

e <- extract(r,p)
```