MMI Assignment

SOLUTION KEY

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This is the KEY

Problem 1: ClingerTax

```
## # A tibble: 8 x 2
##   site_code s_cling
##   <chr>       <dbl>
## 1 A55            55
## 2 A60            40
## 3 A68            65
## 4 A72            25
## 5 A73            35
## 6 A73EC          65
## 7 A75CC          90
## 8 A75D           35
```

Problem 2: IntolerantTax

```
## # A tibble: 8 x 2
##   site_code s_intol
##   <chr>       <dbl>
## 1 A55          42.9
## 2 A60          33.3
## 3 A68          61.9
## 4 A72          19.0
## 5 A73          23.8
## 6 A73EC        57.1
## 7 A75CC        66.7
## 8 A75D         23.8
```

Problem 3: PredatorTax

```
## # A tibble: 8 x 2
##   site_code s_pred
##   <chr>      <dbl>
## 1 A55         46.2
## 2 A60         30.8
## 3 A68         46.2
## 4 A72         23.1
## 5 A73         23.1
```

```
## 6 A73EC       69.2
## 7 A75CC       92.3
## 8 A75D        23.1
```

Problem 4: pi_ScraperTax

```
## `summarise()` has grouped output by 'site_code'. You can override using the
## `.groups` argument.
```

```
## # A tibble: 7 x 2
##   site_code s_scrape
##   <chr>        <dbl>
## 1 A55          46.2
## 2 A60           9.31
## 3 A68          46.0
## 4 A73           8.34
## 5 A73EC        57.2
## 6 A75CC        58.8
## 7 A75D         78.6
```

Problem 5: pi_EPTnoB

```
## `summarise()` has grouped output by 'site_code'. You can override using the
## `.groups` argument.
```

```
## # A tibble: 8 x 2
##   site_code s_pi_no_b
##   <chr>         <dbl>
## 1 A55            56.0
## 2 A60            18.8
## 3 A68            36.4
## 4 A72           110.
## 5 A73           110.
## 6 A73EC         119.
## 7 A75CC          80.8
## 8 A75D           93.0
```

Problem 6: Metrics from Tutorial

```
## # A tibble: 8 x 2
##   site_code s_total_tax
##   <chr>           <dbl>
## 1 A55              61.9
## 2 A60              42.9
## 3 A68              50
## 4 A72              28.6
## 5 A73              45.2
## 6 A73EC            61.9
## 7 A75CC           105.
## 8 A75D             45.2
```

```
## # A tibble: 8 x 2
##   site_code s_ept_tax
##   <chr>         <dbl>
## 1 A55            57.1
## 2 A60            44.9
## 3 A68            57.1
## 4 A72            24.5
## 5 A73            36.7
## 6 A73EC          61.2
## 7 A75CC          77.6
## 8 A75D           36.7
```

```
## `summarise()` has grouped output by 'site_code', 'tot_n'. You can override
## using the `.groups` argument.
```

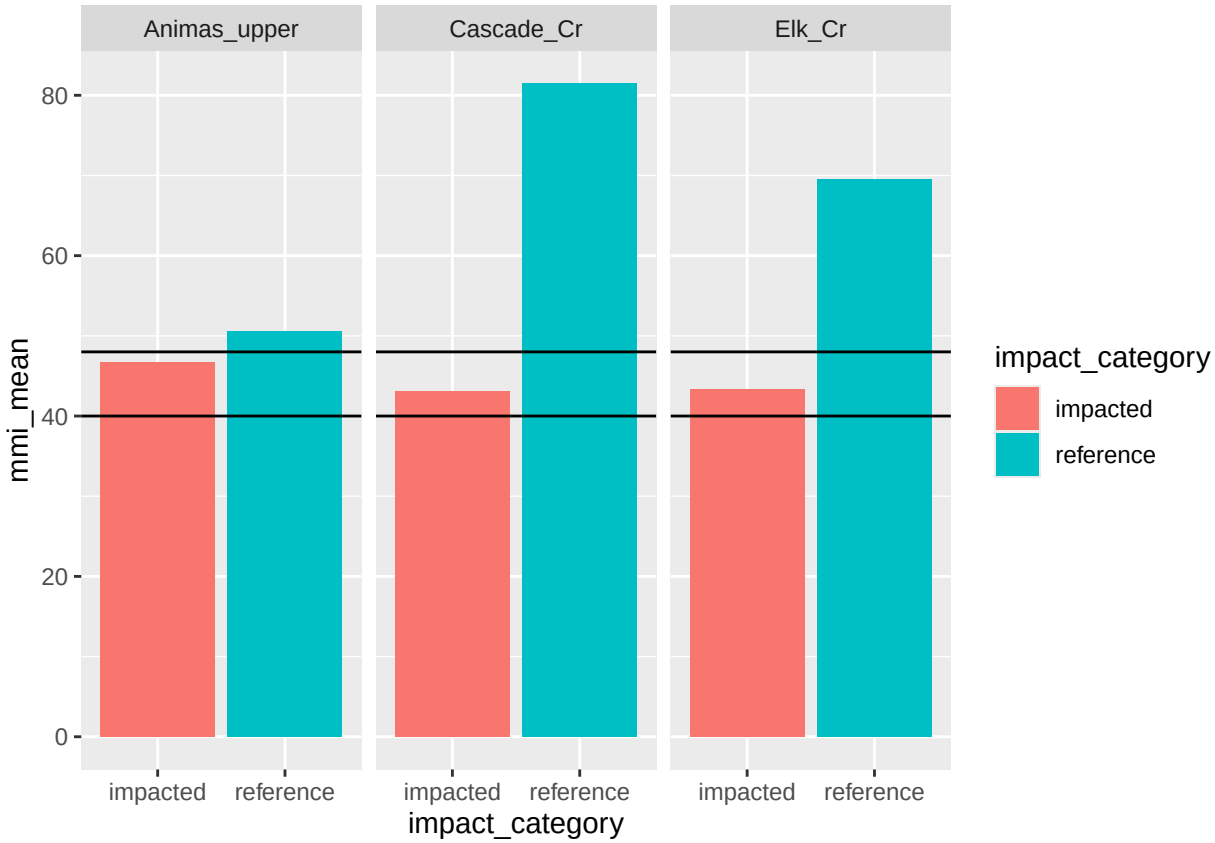
```
## # A tibble: 8 x 2
##   site_code s_pi_sens
##   <chr>         <dbl>
## 1 A55            41.1
## 2 A60            11.8
## 3 A68            37.2
## 4 A72            96.4
## 5 A73            29.1
## 6 A73EC          53.4
## 7 A75CC          58.0
## 8 A75D           44.5
```

Problem 7: Mean MMMI and site info

```
## Joining with `by = join_by(site_code)`
## Joining with `by = join_by(site_code)`
## Joining with `by = join_by(site_code)`
## Joining with `by = join_by(site_code)`
## Joining with `by = join_by(site_code)`
## Joining with `by = join_by(site_code)`
## Joining with `by = join_by(site_code)`
## Joining with `by = join_by(site_code)`
```

```
## # A tibble: 8 x 6
## # Rowwise:
##   site_code mmi_mean river_name                pairwise distance impact_category
##   <chr>        <dbl> <chr>                     <chr>       <dbl> <chr>
## 1 A55           51.5 Animas River - Howardsvi~ <NA>            1 reference
## 2 A60           31.8 Animas River - Below Arr~ <NA>            2 reference
## 3 A68           50.5 Animas River - Above Cem~ Animas_~        3 reference
## 4 A72           46.6 Animas River - Below Sil~ Animas_~        4 impacted
## 5 A73           43.3 Animas River - Above Elk~ Elk_Cr          5 impacted
## 6 A73EC         69.5 Elk Creek                 Elk_Cr         NA reference
## 7 A75CC         81.4 Cascade Creek             Cascade~       NA reference
## 8 A75D          43.1 Animas River - Above Cas~ Cascade~        6 impacted
```

Problem 8: Pairwise plots



Problem 9: Longitudinal plots