# Testing consistency between indicator and measurement names in the Excel Sheets for shinyapp

**Indicators**

Indicators included in "Indicator data" sheet which are not found in "Boundaries"

```
##   Water_type         Indicator
## 1      Rivers      RiverTNsummer
## 2      Rivers RiverOxygenSummer
```

Indicators included in "Boundaries" sheet which are not found in "Indicator data"

```
##   Water_type Indicator
## 1      Lakes  LakeACID
## 2      Rivers RiverACID
```

**Variance components**

Measurements included in "Indicator data" sheet which are not found in "Varcomp"

```
##   Water_type      Measurement
## 1      Rivers Total Nitrogen
## 2      Rivers          Oxygen
```

Measurements included in "Varcomp" sheet which are not found in "Indicator data"

```
##   Water_type               Measurement
## 1      Lakes Proportion cyanobacteria
```

Indicators not found in variable list

```
##     Water_type          Indicator  var
## 1        Lakes            LakePTI <NA>
## 2        Lakes         LakePTIEQR <NA>
## 3        Lakes            LakeIPS <NA>
## 4        Lakes         LakeIPSEQR <NA>
## 5        Lakes        LakeACIDEQR <NA>
## 6        Lakes          LakeTPEQR <NA>
## 7        Lakes      LakeSecchiEQR <NA>
## 8        Lakes   LakeOxygenSummer <NA>
## 9        Lakes        LakepHchange <NA>
## 10      Rivers        RiverACIDEQR <NA>
## 11      Rivers           RiverVIXs <NA>
## 12      Rivers           RiverVIXm <NA>
## 13      Rivers       RiverTNsummer <NA>
## 14      Rivers  RiverOxygenSummer <NA>
## 15      Rivers       RiverpHchange <NA>
```

Variables not found in indicators list

```
##   Water_type          Indicator                        var
## 1    Coastal        CoastOxygen                         O2
## 2      Lakes      LakePropCyano Proportion_cyanobacteria
## 3      Lakes   LakePropCyanoEQR Proportion_cyanobacteria
## 4      Lakes            LakeTPI     TrophicPlanktonIndex
## 5      Lakes         LakeTPIEQR     TrophicPlanktonIndex
## 6      Lakes    LakeTPsummerEQR                         TP
```

```
## 7      Lakes LakeSecchiDepthEQR           SecchiDepth
## 8      Rivers          RiverACID    BenthicDiatomsACID
## 9      Rivers          RiverVIXsm                 VIXsm
```

**Conclusions**

Boundaries for which there is/are no corresponding indicator listed in the "Indicator data" Sheet or variance component information without a related indicator are not a problem.

Its more of a problem if there are indicators listed in "Indicator data" which do not have variance component information or boundary data. There are 2 river indicators for which this is the case: RiverTNsummer and RiverOxygenSummer.

There is a comment from JAC in "Indicator data" that RiverTNsummer is not implemented yet.