# Data Management Plan

## Context:

The data from this ecological impact assessment will be completely open source. It will be made accessible through both a link from the report and links from the authors Github page. In the shared R project, the file EIA\_Data\_For\_R.xlsx can be loaded for R analysis, whereas EIA\_FAIRFormattedData.xlsx is included for strict adherence with FAIR principles. The R files aquaticinverts.R, bats.R, birds and trees.R, terrestrialinverts.R, and waterquality.R can be used to produce the plots included in the report.

## Types of Data Generated:

The raw recorded data included counts of individuals identified in surveying. In certain cases, these data points were tallied by common species. All the data gathered was of individual species, identified to the lowest feasible taxonomic rank.

## Types of Data Preserved:

In certain instances, such as the combined bat data, repeat instances of the same species have been combined to avoid redundancy. In data such as the invertebrate and bird data, individual observations are not stored, but rather abundance counts per species per sampling event.

## Software and Metadata Implications:

The data is stored in Microsoft excel, so other formats may not work. Data analysis is done in R, and R studio was the IDE used here, although others may work.

## Length of Data Preservation:

This data will not be removed from Github at any point. Therefore, the data will be stored for at minimum ten years.

## Value of Data to Others:

The data included here can be of value to other researchers in these plots or nearby areas. The bird, tree, invertebrate, and mammal data provide advantages over other publicly available citizen science data, in that effort has been quantified. Therefore, this data can be used comparatively, should other researchers want to replicate these methods and compare to elsewhere. The incidental sightings, which were not recorded with measured unit of effort, could help researchers who were wondering about the presence of certain protected taxa over the span of roughly a week.

## Length of Proprietary Period:

The proprietary period will be roughly three months, due to the time to analyse the data and write the report.

## How Data Will be Shared:

Data will be shared in .xlsx format. Any analysis data will be shared in the R project in .r files.

## Resources Needed to Preserve and Share Data:

The only resource needed to preserve and share data is the continued operation of Github as a platform, where data will be held.