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**Year 12 Integrated Science 2020**

**Task 2: SIS – Swan River System Investigation**

**FIELD REPORT**

**Background Information**

The Swan River System Inquiry excursion is run by the Department of Parks and Wildlife – Nearer to Nature program. On the day, students will explore topics such as water quality, land cover change, biodiversity loss and sustainability.

Riverside Gardens is located adjacent to the Eric Singleton Bird Sanctuary restoration project. This location provides a great opportunity for the students to see the connection between the drains, wetlands and the river, with an overall focus on land cover change. It offers a unique opportunity to view and learn about the City’s largest environmental wetland restoration project.

**Task**

You are tasked with completing a field report from your observation and analysis of the Riverside Gardens location (an example field report is provided on Seqta to assist with your layout).

**Key Dates**

Excursion: Mon 9th March 2020

Class Time: Fri 6th March – Excursion Preparation

3 lessons in-class (Tues 10th – Fri 13th March) to work on Field Report

DUE DATE: Monday 16th March 2020 (during your class time)

**Task Weighting**

10% of the year mark.

**Total marks available**

Part 1 - Excursion Workbook: 33 Marks

Part 2 – Field Report: 69 Marks

Total Marks: 102 Marks

**Submission Requirements**

Excursion booklet – paper

Field report – electronic submission via seqta assessment (word or PDF only)

**Part 1: Excursion Workbook [33 marks]**

You are required to complete the Excursion Workbook while on site at Riverside Gardens. This workbook is to be submitted as an appendix to your field report.

**Marking Guide – Excursion workbook**

|  |  |
| --- | --- |
| *Site Survey*   * Completes all sections, clearly describing observations. | /10 |
| *Water Quality Testing Data sheet/Interpretations*   * Record all results accurately, using correct units * Complete interpretation sheet, comparing your results to ANZECC trigger values   *Water Quality Conclusions*   * Clearly describe what has been determined from your data collection | /9  /6 |
| *Macroinvertebrate Sampling*   * Identify species present * Characterise biodiversity of site * Describe the factors affecting biodiversity | /6 |
| *Birds of our Wetlands*   * Identify species present | /2 |

**Part 2: Field Report [69 marks]**

Your field report will detail all information from the excursion, including background information, photographs, data collected, conclusions and evaluations.

**Marking Guide – field report**

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| --- | --- |
| *Cover Page*  *Table of Contents/List of Figures* | /3 |
| *Field Trip Summary*   * Provide a summary of the different components of the field trip | /3 |
| *Site Location*   * Provide a summary of the location, including a clear map that outlines the areas that were observed/analysed | /5 |
| *Site Survey*   * Introduction/Background information * Outline all observation categories, incorporating annotated photographs and diagrams (cross-section through the bank) to assist in your description of the site * Site Rating (use the rating matrix to identify the health of the site | /12 |
| *Water Quality Testing*   * Introduction/Background information * Water quality table (includes all test results and ANZECC trigger values, identifying area in need to remediation. * Water Quality Conclusions   + Describe the water quality of the wetland   + Discuss what factors need to be considered when using this data   + Describe strategies that could be used to deal with high nutrient level | /3  /4  /7 |
| *Macroinvertebrate sampling*   * Introduction/Background Information * Species identified table * Biodiversity   + Describe what biodiversity is.   + Describe the biodiversity in the area   + Describe factors that have or may have affected the biodiversity | /3  /4  /4 |
| *Birds of our Wetlands*   * Introduction/Background Information * Species Identified   + Provide detailed information about the different types of birds that have been identified in this wetland. List the status of the bird (endangered etc). Describe the habitat of this bird and what it eats. Include photographs. * Environmental Impacts   + Describe the environmental factors that are impacting upon the bird population within this wetland.   + Discuss at least one mitigation strategy that could be put in place to deal with the adverse environmental factors | /3  /5  /3 |
| *Evaluation*   * Identify any difficulties that you had with obtaining data whilst on the excursion * Make suggestions for how you could improve the quality of the data collected, or make the data more reliable | /4 |
| *Conclusion*   * Provide a conclusion that details the health of the wetland, based on the data that you have collected. | /3 |
| *References* | /3 |