

## Grid and Tally Sheets

Print this grid on a separate page for each student team:

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**Modelling Tally Sheet:**

| Types of Land                                    | Number of squares |            |            |            |
|--|-------------------|------------|------------|------------|
|  | Initial scenario  | Scenario 1 | Scenario 2 | Scenario 3 |
| <b>Forest</b>                                    |                   |            |            |            |
| Protected Forest                                 | 0                 |            |            |            |
| Forest areas with more than 5 connected squares  |                   |            |            |            |
| <b>Fields</b>                                    |                   |            |            |            |
| Protected fields                                 | 0                 |            |            |            |
| Field areas with more than 5 connected squares   |                   |            |            |            |
| <b>Wetlands</b>                                  |                   |            |            |            |
| Protected wetlands                               | 0                 |            |            |            |
| Wetland areas with more than 5 connected squares |                   |            |            |            |
| <b>Water</b>                                     |                   |            |            |            |
| Protected water                                  | 0                 |            |            |            |
| Industrial lands                                 | 0                 |            |            |            |
| Residential lands                                | 0                 |            |            |            |

|  |   |  |  |  |
|--|---|--|--|--|
| Income from economic activity:<br>(Number of Industrial land squares x \$10,000) | 0 |  |  |  |
| Human population:<br>(Number of residential land squares x 100)                  | 0 |  |  |  |
| Biodiversity:<br>(Number of species that can survive in the scenario)            |   |  |  |  |

**Biodiversity Counter:**

| <b>Animal</b> | <b>Requirement</b>  | <b>Initial scenario</b> | <b>Scenario 1</b> | <b>Scenario 2</b> | <b>Scenario 3</b> |
|---------------|---|-------------------------|-------------------|-------------------|-------------------|
| Wolf          | Six areas of 5 or more connected squares of woods or fields     |                         |                   |                   |                   |
| Trout         | 5 squares of water  |                         |                   |                   |                   |
| Raccoon       | 5 squares of any land space (undeveloped or developed)          |                         |                   |                   |                   |
| Minnow        | 1 square of water   |                         |                   |                   |                   |
| Fox           | 5 squares of protected forest                                   |                         |                   |                   |                   |
| Blue Jay      | 3 squares of forest, fields, or wetlands                        |                         |                   |                   |                   |
| Eagle         | 20 squares of protected squares                                 |                         |                   |                   |                   |
| Squirrel      | 2 squares of any undeveloped forest or field space              |                         |                   |                   |                   |
| Deer          | one area of more than 5 connected forest squares                |                         |                   |                   |                   |
| Moose         | Two areas of 5 connected forest squares                         |                         |                   |                   |                   |
| Loon          | 5 squares of protected water                                    |                         |                   |                   |                   |
| Beaver        | 5 squares of protected wetland                                  |                         |                   |                   |                   |
| Frog          | 1 square of protected water                                     |                         |                   |                   |                   |
| Chipmunk      | 4 squares of forest or fields                                   |                         |                   |                   |                   |
| Snake         | 5 connected squares of field or 2 squares of protected field    |                         |                   |                   |                   |
| Turtle        | 5 connected squares of wetland or 1 square of protected wetland |                         |                   |                   |                   |

|                                  | <b>Initial scenario</b> | <b>Scenario 1</b> | <b>Scenario 2</b> | <b>Scenario 3</b> |
|----------------------------------|-------------------------|-------------------|-------------------|-------------------|
| <b>Number of unique species:</b> |                         |                   |                   |                   |
| <b>Total number of animals:</b>  |                         |                   |                   |                   |