Classroom Explorations: Remote Sensing
Calculating Impervious Surface

Student/Group Name: ____________________ Date: __________________

In this activity, you will use a satellite aerial image to calculate the amount of impervious surface.

1. Overlay 1x1 inch grid on topic of image.
2. Color in squares and/or right triangles on grid that are over impervious surface.

• 1 inch = 200 feet

3. What is the area of 1 square (in ft$^2$)? _________________

4. What is the area of 1 right triangle (in ft$^2$)? _________________

<table>
<thead>
<tr>
<th></th>
<th>How many?</th>
<th>Area (ft$^2$)</th>
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<tbody>
<tr>
<td>Squares</td>
<td></td>
<td></td>
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<tr>
<td>Triangles</td>
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</tbody>
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Total area of impervious surface (ft$^2$): _______________
5. Calculate percentage of impervious surface by dividing impervious surface area by total area of grid.

- Total area of grid (ft²): _____________
- Percentage (%) of impervious surface: _____________

6. Assess the health of this area based on your impervious surface percentage.

% Impervious: _____________

Health: _________________

7. What are some steps that can be taken to improve health?

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