OPERATION HEALTHY AIR
HABITAT MAPPING CHEATSHEET

STEPS FOR CREATING A SUCCESSFUL MAP:

1. Create account
2. Locate your site, create a site boundary that covers a radius of at least 25 m from your sensor
3. Name your site and add it to the OHA-Inland Empire Group
4. Map all habitats (building, pavement, lawn, native plantings, etc)
5. Map ALL trees and represent canopy cover as best as possible
6. If you have time, fill in as much descriptive data as you can for each habitat type and tree.

CREATE AN ACCOUNT

1) Create an account: content.yardmap.org
   a) Click on Sign-In located in the top right corner
   b) Click on Create an Account
   c) Login: Your Choice
   d) Password: healthyair

ACCESS THE HABITAT NETWORK MAPPING TOOL

1) Sign-In: content.yardmap.org
   a) Click on Sign-In located in the top right corner

LOCATE YOUR SITE, CREATE THE SITE BOUNDARIES, AND NAME THE SITE

1) Locate the site.
   a) Enter the street address and city, OR the latitude and longitude (insert a comma after the latitude) in the Search box
2) Outline the site. Click on Toolshed, then choose “First”. Your starting point will be located where the sensor is placed (see arrow in figure below). Measure 82ft due west from the location where the sensor will be placed, then, north 82ft, east 164ft, south 164, west 164 ft and finish at the starting point (at an angle). Correct your site by editing the shape- grab both points in the center to th edge to create a square site outline (see Figure on left).
3) Name the Site and Complete Site Characteristics

a) To name the site, double click on the site line. Click on “Basic Information” on the left. Name your site using the naming convention listed below in the Type New Title Here box. Click on Save and Close in the upper right.

1. **Name of person/place (5 characters)_{plot number (2 characters)}_{Quadrat (3-6 characters)}_{Region (2 characters)}_{Date created (MMDDYY)}.

2. **EXAMPLE:** *Mchan_01_OntAug_IE_052017*

b) Complete site characteristics
c) Click on “Characteristics” on the left.
d) It is important to complete the Structural Diversity for this project site. You may complete other characteristics as you want. Click on Save and Close in the upper right.

**ADD THE SITE TO THE CORRECT “Habitat Network Group”**

1) For this project, please join the Inland Empire - OHA Group by selecting “Group” from the top menu.
   i) **Navigate to “Inland Empire—OHA” group. (USE THIS GROUP)**
   ii) Add your site to the Group, by navigating to “Join Group”
iii) Select your site from the drop down menu. In the Membership Conditions box state that you are participating in the Operation Healthy Air Study.

iv) Introduce yourself and engage with others in the group discussions.

**Map the Habitats within the Site**

Map habitats within the site using the “Second” step in the Toolshed. We recommend mapping in the following order:

- Buildings
- Pavement
- Lawn
- All other habitats

1) Try to map the site with habitats to 95% complete (check under Habitat overview)

2) IF YOU HAVE TIME, answer the following habitat characteristics listed below.

<table>
<thead>
<tr>
<th>Habitat*</th>
<th>Alternative names</th>
<th>Explanation</th>
<th>Characteristics to describe if possible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lawn</td>
<td>Turf, Sod, Grass</td>
<td><strong>Turf, Sod, Grass.</strong> A plot of tended, usually mowed grass. If not mowed,</td>
<td>Irrigation Frequency [Never/ Monthly/Weekly / More than Once a Week/ Daily]</td>
</tr>
<tr>
<td>Forest</td>
<td>Trees/Woods/Grove</td>
<td>Trees, Woods, Grove. A tract of land covered with trees and underbrush; woodland.</td>
<td>Important: Title the forest with the estimated height of the canopy 0-5 ft/6-10ft/11-15 ft/16-20ft/21-25 ft/25ft+ Example: “East Forest 25+”</td>
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<tr>
<td><strong>Building</strong></td>
<td>Garage/Deck/Shed/Office</td>
<td>Garage, House, Deck, Shed, Office. Any, man-made structure.</td>
<td>Name your building using the Basic Information tab and including number of stories. For example “3 Story Building”</td>
</tr>
<tr>
<td><strong>Ground</strong></td>
<td>Dirt/Sand/Gravel/Soil/Rock/Mulch</td>
<td>Landscape mostly bare of vegetation.</td>
<td>Sand/Gravel/Rock/Soil/Mulch/Mud</td>
</tr>
<tr>
<td><strong>Pavement</strong></td>
<td>Concrete/Asphalt/Brick/Stone</td>
<td>Hard, man-made ground-cover like sidewalk, driveway, roads, patios, or parking lots.</td>
<td>Permeable/Non-Permeable</td>
</tr>
</tbody>
</table>

*** For additional questions regarding the habitat mapping process please review the Habitat Network Mapping 101 guide found at [http://content.yardmap.org/learn/tutorial/](http://content.yardmap.org/learn/tutorial/).

**MAP ALL THE TREES AS OBJECTS**
1) Add ALL trees within your site through the “Third” step in the Toolshed
2) Use any of the 3 versions of trees
3) Size the tree object to the size of the canopy as best as possible
4) IF YOU HAVE TIME, name your tree with the estimated height, (for example: Pine 21-25 ft); height can be in 5 ft increments (5 ft; 10 ft.; 15 ft; 20 ft, 25 ft., etc.)

GROUND TRUTHING (OPTIONAL)

Ground truthing (aka field verification) your map is another valuable process if you have time. It can be done by yourself or by asking someone closer to the site. Here are the basic steps:

- Print your Habitat Network map by taking a screenshot of it
- Go outside with a pencil and your printed map
- Update the printed map with information about:
  - Habitats (lawn, buildings) – position, characteristics
  - Trees: kind (deciduous, coniferous), species, width, height
  - Take photos
- Update your Habitat Network map with updated information

BEST PRACTICES

- Site lines must always be drawn first
- Site lines and habitat polygons should not intersect
- Habitat polygons should not overlap
- Zoom in as much as possible for accurate mapping
Habitat Network

Operation Healthy Air: Additional Resources

Our special partnership with Habitat Network provides us with resources to help our volunteers become expert mappers. If you find yourself stuck in the mapping process and not sure what to do next, please contact Habitat Network Staff via email thehabitatnetwork@gmail.com (monitored and checked daily)

Please include:
1. Your Habitat Network Username
2. GPS location you are mapping
3. What is the issue? Or Where are you stuck?
4. A good time to work with you online

Other resources include the Practice Tutorial document and associated YouTube video: https://youtu.be/WMWceGQ70Ug