



# Home Site Soil Pollution and Conservation Assessment Worksheet

## Introduction

This easy-to-use assessment sheet allows property owners, property managers, or renters to find priority areas in which steps can be taken to decrease the ecological footprint of a site. Each item describes at least one action that can be taken to improve the environment. By implementing the suggestions on this sheet, you can feel good that you have taken steps to make yourself healthier by making a healthier environment. If everyone would take these steps, we would have more soil and cleaner water. Good stewardship starts with you. It continues with your neighbor.

If further assistance or technical information is required, please feel free to contact Streamline Planning Consultants.

## Living Sites

- |   |                          | <u>Yes</u>               | <u>No</u>                |
|---|--------------------------|--------------------------|--------------------------|
| 1) ► Do you have <b>steep</b> , bare (or sparsely vegetated) slopes?.....   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <ul style="list-style-type: none"> <li>● Decrease bare slope angles to increase slope stability and to make water infiltration and plant establishment easier.</li> <li>● Install slope breaks on slopes over 10 feet using straw wattles or vegetated berms.</li> </ul>  |                          |                          |                          |
| 2) ► Do you have <b>bare soil</b> areas?.....   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <ul style="list-style-type: none"> <li>● Cover exposed soil using mulch, jute netting/erosion control mat, appropriate plants, etc.</li> </ul>  |                          |                          |                          |
| 3) ► Do you have areas where water is <b>running off</b> of your site?.....   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <ul style="list-style-type: none"> <li>● "Soak it in, slow it down, spread it around, settle it out;" re-shape the land with bio-swales or berms, vegetative buffer strips or patches, decrease impermeable surfaces, re-route or diffuse run-on (as with rain gardens of grass, mulch, or gravel), use gravel bags to filter.</li> </ul> |                          |                          |                          |
| 4) ► Do you have <b>poorly drained areas</b> where water ponds or moves slowly?.....  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <ul style="list-style-type: none"> <li>● Amend soil, plant deep-rooted perennials, and re-shape landscape to direct water through a vegetated area. Please do not alter wetlands. This item applies to lawns and landscapes.</li> </ul>   |                          |                          |                          |
| 5) ► Does your landscape contain few <b>plants</b> or shallow-rooted types?.....  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <ul style="list-style-type: none"> <li>● Replace shallow-rooted plants and lawns with perennials &amp; deep-rooted plants.</li> <li>● Add plants to areas containing only weed fabric and rock or mulch.</li> </ul>   |                          |                          |                          |

- |   |                          |                          |
|---|--------------------------|--------------------------|
|   | <u>Yes</u>               | <u>No</u>                |
| 6) ► Is your landscape composed of large <b>impermeable areas</b> such as concrete?.....  | <input type="checkbox"/> | <input type="checkbox"/> |
| <ul style="list-style-type: none"> <li>● Replace unnecessary pavement with gardens, trees, perennials, etc.</li> <li>● Replace traditional pavement with permeable pavement.</li> </ul>   |                          |                          |
|   | <u>Yes</u>               | <u>No</u>                |
| 7) ► Are any potential <b>pollutant sources</b> improperly contained?.....  | <input type="checkbox"/> | <input type="checkbox"/> |
| <ul style="list-style-type: none"> <li>● Asphalt, fuel cans, paint cans, fertilizer bags/bottles, pesticides, batteries, etc. should be stored in a cabinet or covered tub, inside a shed or garage, not left outside.</li> </ul>   |                          |                          |
|   | <u>Yes</u>               | <u>No</u>                |
| 8) ► Do you see signs of <b>septic system failure</b> , or has it been over three years since your tank was pumped?.....  | <input type="checkbox"/> | <input type="checkbox"/> |
| <ul style="list-style-type: none"> <li>● Septic tanks should be pumped every three years. Check for mushy areas where plant growth is significantly greater or foul smells are exuded. Keep a record of pumping.</li> </ul>   |                          |                          |
|   | <u>Yes</u>               | <u>No</u>                |
| 9) ► Are any <b>spills</b> evident?.....  | <input type="checkbox"/> | <input type="checkbox"/> |
| <ul style="list-style-type: none"> <li>● Look for oil on the ground, pools or piles of known pollutants or suspicious materials. Call the Humboldt Household Hazardous Waste Hotline at 441-2005. Contain the material and save it for collection on the first Saturday of each month from 9 a.m. to 2 p.m. at 1059 West Hawthorne Street, Eureka, CA 95501.</li> </ul>   |                          |                          |
|   | <u>Yes</u>               | <u>No</u>                |
| 10) ► Are any soil or lawn areas being used for <b>parking</b> ?.....   | <input type="checkbox"/> | <input type="checkbox"/> |
| <ul style="list-style-type: none"> <li>● Parking on a mulched area or permeable pavement prevents runoff and erosion, as well as mud being tracked onto the street by tires.</li> </ul>   |                          |                          |
|   | <u>Yes</u>               | <u>No</u>                |
| 11) ► Are any soil or lawn areas being used as a <b>walkway</b> ?.....  | <input type="checkbox"/> | <input type="checkbox"/> |
| <ul style="list-style-type: none"> <li>● Consider installing a permeable pathway with pea gravel, bark mulch, or bricks.</li> </ul>   |                          |                          |
|   | <u>Yes</u>               | <u>No</u>                |
| 12) ► <b>Communication</b> - Do you see any violations of the items on this worksheet at a neighbor's site or around your apartment building or rental? .....   | <input type="checkbox"/> | <input type="checkbox"/> |
| <ul style="list-style-type: none"> <li>● Accidents happen - Hydraulic lines break, radiators leak; focus on helping folks rather than busting them. If you're in an apartment, tell violators about spilled material before going to managers, city, county, or the state water quality board. Do the same with neighbors who have erosion issues. Work your way up the regulatory list, rather than starting at the top, to give people a chance to clean up their act. If it's an emergency and the violator doesn't respond, call the Stormwater Hotline at 1-877-627-2001.</li> </ul> |                          |                          |

**Gardens**

- |   |                          |                          |
|---|--------------------------|--------------------------|
|   | <u>Yes</u>               | <u>No</u>                |
| 13) ► Are you using the <b>least toxic</b> solution for pest control and other material application?.....   | <input type="checkbox"/> | <input type="checkbox"/> |
| <ul style="list-style-type: none"> <li>● Many new products are becoming available to replace toxic pesticides, paints, and other materials, including organic herbicides, non-toxic ant killer, and eco-friendly paints.</li> </ul> |                          |                          |
|   | <u>Yes</u>               | <u>No</u>                |
| 14) ► Do you apply fertilizer or manure without <b>analyzing soil nutrient levels</b> ?.....  | <input type="checkbox"/> | <input type="checkbox"/> |
| <ul style="list-style-type: none"> <li>● Adding more nutrients than the soil can hold causes pollution in the ground water. Adding more nutrients than plants need is a waste of money and materials.</li> </ul>                    |                          |                          |

- If your plants grew well last season, you probably don't need to add much, if anything. Some good compost should take care of any previous season nutrient removals.
- Simple nitrogen, phosphorus, potassium soil test kits are available at local nurseries. These are effective, inexpensive means to determine how much fertilizer to apply.
- Using organic fertilizers and animal manures ensures slower nutrient release and, therefore, less pollution.

15) ► Do you apply fertilizer without **analyzing the soil pH**?.....  Yes  No

- Our climate typically produces acidic (low pH) soils. Many seemingly sterile soils actually have adequate nutrient levels. The nutrients, however, are chemically bound up. Lime addition can bring pH levels up, which releases the bound nutrients. This release makes fertilizer additions unnecessary, or decreases the amount required.

16) ► Do you irrigate without **analyzing soil moisture** content?.....  Yes  No

- Adding more water than the soil can hold, within the rooting depth of your plants, causes pollution in the ground water by leaching nutrients below the level where plants can reach them. Over-watering is a waste of money, water, and energy.

17) ► Do you plant **cover crops or mulch** your garden during the non-growing season?.....  Yes  No

- Leaving bare soil degrades soil structure, reduces soil health, and prevents organic matter cycling. Mulch or cover crops protects the soil surface and adds essential organic matter to the soil.

18) ► Do you **till** your garden?.....  Yes  No

- Tillage destroys soil structure and causes organic matter oxidation (loss as CO<sub>2</sub> to the atmosphere).
- Tillage can result in soil loss of 15 tons/year on an acre of land (about 69lbs. on a 10'x10' plot).
- Reduced tillage can decrease soil loss to 7.5 tons/year per acre (about 34.5lbs. on a 10'x10' plot).
- No-till farming can result in soil loss of 1.3 tons/year on an acre (about 6lbs. on a 10'x10' plot).
- Tillage is particularly useful for weed control, so no-till must use:
  - Solarization - mow them to the ground, moisten soil, cover with black plastic tarp Spring-Fall
  - Mulching with cardboard covered with wood chips, etc.
  - Herbicide (Weed-Aside)
  - Smother crops - rye, sorghum, buckwheat, millet
- If you till, be sure to replace the organic matter (see item 17 above)

19) ► **Communication** - Do you see room for improvement, with any of the items on this worksheet, at a neighbor's site or around your apartment building or rental?.....  Yes  No

- If you see issues that could use improvement, strike up a friendship with a neighbor and share your knowledge. Start by asking questions about how your neighbor gardens and then share what you've been doing to improve your gardening.