

<b>Nutrients:</b>		<b>Metals:</b>	
Biochemical Oxygen Demand (BOD <sub>5</sub> )		Iron	
Dissolved Oxygen (DO)		Manganese	
Total Suspended Solids (TSS)		Arsenic	
Total Dissolved Solids (TDS)			
Total Inorganic Nitrogen (TIN)			
Ammonia			
Nitrate			
Nitrite			
Total Phosphorus (TP)			
<b>Pesticides:</b>		<b>Reason to Keep or Eliminate from list</b>	
Atrazine herbicide		<p>Translocated into stems and leaves, accumulates in the growing tips and new leaves.</p> <p>Increases the uptake of arsenic by treated plants.</p> <p>Persistent in soil, loosely adsorbed with half-life of 60 to 100 days. High potential for groundwater contamination.</p> <p>Slightly to moderately toxic to humans and other animals.</p> <p>Second most common pesticide found in private and community wells.</p>	
Simazine herbicide		<p>Translocated into stems, leaves and growing tip.</p> <p>Moderately to poorly bound to soil. Adsorbs to clays and muck.</p> <p>Low water solubility makes it less mobile, limiting leaching potential, but has been detected in groundwater in 16 states in a 1990 report. One of the most frequently detected in urban area streams and groundwater (USGS study)</p> <p>Can be washed along with soil particles in runoff.</p> <p>Slightly to practically nontoxic.</p> <p>Practically nontoxic to birds; slightly to practically nontoxic to aquatic species; nontoxic to honey bees; sheep and cattle esp. sensitive.</p>	

2,4-D	<p>Plant uptake through leaves, stems and roots.</p> <p>Detected in groundwater supplies in at least 5 states &amp; Canada.</p> <p>Slightly toxic to wildfowl. Slightly to moderately toxic to birds. Toxicity varies for fish.</p>
Carbofuran insecticide	<p><u>Not registered for residential use.</u> Registration is revoked for all uses as of 12/31/09. May persist on leaves</p> <p>Used for insects, mites, and nematodes (soil and foliar pests of field, fruit, veg, forest crops)</p> <p>Highly toxic to many fish. Toxic to bees.</p> <p>Moderately persistent in soil.</p> <p>High potential for groundwater contamination. Mobile to very mobile in sandy loam, silty clay and silty loam soils. It does not volatilize from water nor adsorb to sediment or suspended particles.</p>
Carbaryl insecticide	<p>Widely used for lawns, ornamental and shade trees and on pets.</p> <p>Moderately to very toxic in humans</p> <p>Bound in organic matter and can be transported in soil runoff.</p>
Malathion insecticide	<p>Residues found in lipid area of plants such as leaf surface. Moderately bound to soils, soluble in water and may pose risk of groundwater or surface water contamination in situations less conducive to breakdown.</p> <p>Degradation in soil can be rapid and related to degree of binding. Breakdown combination of biological and reactions with water.</p> <p>Breakdown in surface water &lt; 1 wk.</p> <p>Moderately toxic to birds Wide range of toxicities in fish</p>

<p>Dichlobenil</p>	<p>Preemergence control of grass and broadleaves.  Readily absorbed by seeds resulting in inhibition of germination. In plants translocated upward in plants via the transpiration stream..  (Weed Science Princ.)</p> <p>Not readily leached. (Weed Science Princ.)  Soil persistence 2-6 months. Will be taken up by established plants.</p> <p>Adsorbs to organic matter of soil. Potential for both Dichlobenil and BAM (metabolite) to move to ground water in coarse-textured soils low in organic matter.</p> <p><u>Largest use is residential around trees, shrubs and ornamental plants.</u></p> <p>Groundwater advisory on label.</p> <p>Toxicity varies with species and acute toxicity can be high.</p>
<p>Dicamba herbicide</p>	<p>Taken up by the leaves and roots and translocated. Residues can be shed by plants through roots, leaves and by metabolism. <u>An active ingredient of Weed-Be-Gon. Registered for use in lawns.</u></p> <p>Does not bind to soil particles, highly soluble in water. It is highly mobile in soil and may contaminate groundwater. Microbes are main source of degradation in water.</p> <p>Practically nontoxic to birds  Low toxicity to fish  Little threat to wildlife  Non toxic to bees.</p>
<p>Bifenthrin</p>	<p>Label:  Only for use and storage by commercial applicators for use to control ants (including imported fire ants), mole crickets, and other insect pests <u>on lawns in landscaped areas</u> and perimeters around residential, institutional, public, commercial, and industrial buildings, parks, recreational areas and athletic fields.  Active Ingredient: Bifenthrin* By Wt. 0.2%  Inert Ingredients: 99.8%  TOTAL 100.0%</p> <p>Does not move in soils. Relatively insoluble in water. No concerns about groundwater contamination through leaching (1995) <u>Not absorbed by plant foliage, is not translocated in the plant. Could not find anything about persistence on foliage.</u></p>

<p>Permethrin insecticide</p>	<p>Persistent on tree needles, foliage, bark, grass.</p> <p>At certain doses, soil concentrations did not decline during first year. Tightly bound by soil, esp. organic matter. Very little leaching has been reported as of 1996. Not expected to leach or to contaminate groundwater as of 1996. Persists in sediments.</p> <p>It has been found in ground and surface water as of 1998.</p> <p>Almost nontoxic to birds. Toxic to aquatic species.</p> <p>Excerpt from EPA-RED 5/2009 The Agency determined that exposure to homeowners handling a permethrin product is likely to occur via dermal (skin) and inhalation routes during the residential use of permethrin in a variety of indoor and outdoor environments, <u>including use on lawns, gardens, ornamentals, indoor surfaces and spaces, and contact with pets. Permethrin is one of the most widely used pesticide active ingredients, and has an extraordinary number of use patterns.</u></p>
-------------------------------	---