# Pesticide and Fertilizer Management Program

## 1.0 Introduction

Improper application of pesticides and fertilizers can have a strong negative impact on storm water quality. When these contaminants dissolve in storm water, they can find their way to surface waters, such as our local rivers and streams: the Great Miami River, Stillwater River, Mad River and Wolf Creek.

The City of Dayton is responsible for compliance with the Ohio Environmental Protection Agency (OEPA) Municipal Separate Storm Sewer (MS4) Permit. A major component of the MS4 permit is the development and implementation of a Storm water Management Plan (SWMP) – a dynamic program that outlines the efforts Citywide to reduce storm water pollutant discharges to the MS4.

The MS4 is defined as:

- A conveyance, or system of conveyances (roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels or storm drains). This includes structural controls, which are structures and conveyances used to remove pollutants from storm water (e.g. infiltration device, constructed wetland, biofilter, extended detention basin, vegetated swale, water quality inlet, catch basin, etc.).

The SWMP is driven by Best Management Practices (BMPs), control technologies and system/engineering methods – and is designed to reduce storm water pollution to the maximum extent practicable. In addition, these efforts to reduce storm water pollution must be technically and economically feasible.

This guidance document is to be referenced by City personnel who apply, handle, transfer, and/or disposal of pesticides and fertilizers used in the public right-of-ways, and at municipal facilities. It is intended to contain information that will assist in reducing storm water pollution, and shall meet the requirements set forth in the MS4 permit.

## 2.0 Usage Guidelines

Pesticides and fertilizers contain toxic materials that pose both environmental and human health risks. Humans, animals, aquatic organisms, and plants can be severely threatened by these chemicals. If not properly managed, the toxins found in pesticides and fertilizers can runoff impervious surfaces into storm drains and surface waters whenever it rains. Impervious surfaces are hard surface area, which either prevents or retards the entry of water into the soil. Common impervious surfaces include, but are not limited to, walkways, driveways, parking lots and concrete or asphalt paving.

The risk of storm water contamination is greatest when the directions for application are not followed exactly. Carefully read product labels containing information about the persistence and toxicity of pesticides and fertilizers. Applying unnecessary amounts of pesticides and fertilizers is not only a waste of money; it can be detrimental to water quality. When applying these materials, follow the directions – and keep all materials off of paved areas draining to storm sewers. If liquids are used, be careful to avoid over spray and drift – and use a minimum three-foot buffer zone between application areas and water bodies and wells. Blow or sweep granular materials back into the grass to reduce the likelihood of being washed into the MS4.

The United States Environmental Protection Agency (USEPA) administers the pesticide program under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). Among other things, this program authorizes USEPA to control pesticides that may threaten storm water. Potential actions carried out in the program include national requirements on labels, training, development of state management plans, and national prohibition of certain domestic uses of designated chemicals.

Apply pesticides and fertilizer at the proper time for their proper effectiveness. Never apply pesticides or fertilizers before a heavy rain is anticipated.
Excess fertilizers can wash into waterways, stimulating nuisance weed and algae growth. Excessive plant growth can choke slow moving waters, take up oxygen needed by fish and other aquatic life, and release ammonia which is toxic to fish. Consider, as appropriate, having the soil tested to determine what nutrients need to be added to avoid over application.

General

- Pesticide applications must take place by or under the supervision of licensed/certified pesticide applicator personnel.
- Always wear appropriate protective clothing and never wash contaminated clothing with other clothing.
- Take precautions to prevent spills. For example, close containers tightly after each use, even if you plan to reopen them soon.
- All equipment, including hoses, gauges, orifices and tanks must be routinely inspected for damage, leakage or corrosion.
- Set all application equipment and measuring devices to the proper setting to ensure accurate delivery rate.
- Labels must be read carefully to verify proper mixing and recommended quantities.
- Materials must be accurately measured and mixed according to label instructions to prevent over application.
- Know what to do if a spill occurs (see section 6.0).
- Mix only the amount needed for the job.
- Follow the label directions exactly.
- Clean up and transfer of excess materials from field equipment, and reuse as necessary.
- It is illegal to rinse equipment near storm water drainage areas or catch basins.

Spraying

- Avoid spraying impervious surfaces.
- Pesticides and fertilizers must be applied in the field at a constant rate of speed. The spray nozzle must be adjusted to release the appropriate droplet size to minimize drift.
- Do not spray on a windy day. Do not apply in wind speed above 5 MPH, or at high spray pressures.
- A backpack and a buffer zone should be used to gain better control around sensitive areas, and to protect non-target organisms and waterways, including storm water catch basins.
- Do not apply pesticides to bare or eroding soil.
- Do not apply pesticides near water systems such as wells, streams, rivers and lakes without permission from the Division of Environmental Management.
- Reduce cleaning and waste by clustering jobs that use the same solution.
- Contact the Division of Environmental Management for proper application procedures of pesticides and fertilizers in Well Field Protection Areas.

## 3.0 Storage

Keep pesticides and fertilizers in their original containers so you know what they are and how to use them. Mark the date of purchase on each container so that older materials can be used first.

If possible, store pesticides and fertilizers indoors in a clearly marked area that is designed as a secondary containment. Storage areas should be located at least 150 feet from the MS4.

Keep products in their original containers. Be sure the containers are in good condition, and check periodically for signs of deterioration. If storing pesticides and fertilizers indoors increases risks to health and safety, be sure outdoor storage containers are water-tight, rodent-proof and protected from tampering. Keep materials dry, and prevent freezing.

## 4.0 Cleaning and Disposing

The best method of cleaning containers and equipment is to triple rinse or pressure rinse empty containers in the field. To triple-rinse, allow the concentrate to drain from the empty pesticide/fertilizer container for 30 seconds. Fill one-quarter of the container with water, replace the lid and shake the container so that all interior surfaces are rinsed.

Drain the rinse water into the spray tank for at least 30 seconds. Repeat the process two more times. Rinse water must be collected and applied to a compatible site at or below the labeled rate. Empty pesticide/fertilizer containers cannot be refilled, reconditioned, recycled or sent back to the manufacturer. They must be crushed, broken or punctured so that they cannot be used again.

In general small containers can be disposed of in the trash pickup after they have been rendered unusable. Leftover pesticides or fertilizers, if determined to be unusable, may be managed through the City of Dayton hazardous materials disposal program. For more information call Michele Jones, Division of Environmental Management, at 333-3796.

## 5.0 Spill Prevention

When pesticides and fertilizers are not stored properly, pollutants can leak from stockpiles and containers. Reducing the amount of materials and wastes kept in storage is a sure way to cut the dangers of pollution. But some storage will always be necessary in developed and active areas. Taking a few simple precautions to prevent a spill of pesticides or fertilizers will eliminate the headaches that come with cleaning up after one:

- Remain in attendance when tanks and open containers are being filled.
- Use a funnel when transferring liquids from one container to another.
- Place trays under open containers and the spouts of liquid storage containers.
- Use secondary containers whenever carrying materials from one location to another.
- Regularly inspect tanks, application equipment routinely for damage, leakage or corrosion.

## 6.0 Spill Response and Reporting

The following are response measures to be taken if there is a spill or release:

Small Spills

- If the amount of material is manageable (less than the reportable quantity), and has not impacted storm water, conduct clean-up measures following all safety procedures under the supervision of licensed/certified personnel.
- Sweep away from, not into, the MS4.

Large Spills

- If the amount of material is unmanageable, and clean-up efforts are deemed to exceed the abilities of city personnel; or if the material has impacted the MS4, make the following contacts immediately:

1. Local Fire Department/ Haz-Mat or 9-1-1
2. Environmental Management – 333-3725 (weekdays, 8am-5pm)
3. Water Dispatch – 333-4905 (after hours)

## City of Dayton
## Pesticide Sampling History

### Kittyhawk sediment and surface water results: 12/10/2004

| Sample Location / Parameters | Upstream | Inlet | E-1 | North Lagoon | Lake | H-1 | H-6 | H-10 | E-12 | E-7 | E-10 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PCBs (TOTAL) | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| PENTACHLOROPHENOL | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| PICLORAM | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| DI(2-ETHYLHEXYL)ADIPATE | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| ALDICARB | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| ALDICARB SULFONE | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| ALDICARB SULFOXIDE | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 3-HYDROXYCARBOFURAN | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| METRIBUZIN | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| OXAMYL(VYDATE) | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| CARBARYL (SEVIN) | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| DIQUAT | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| ENDOTHALL | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| DI(2-ETHYLHEXYL)PHTHALATE | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| METHOMYL | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| BENXO (a) PYRENE | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| HEXACHLOROBENZENE | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| HEXACHLOROCYLOPENTADIENE | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| ALDRIN | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| a-BHC | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| b-BHC | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| d-BHC | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| LINDANE | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| CHLORDANE | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 4,4'-DDD | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 4,4'-DDE | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 4,4'-DDT | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| DIELDRIN | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| ENDOSULFAN I (THIODAN) | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| ENDOSULFAN II | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| ENDOSULFAN SULFATE | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| ENDRIN | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| ENDRIN ALDEHYDE | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| ENDRIN KETONE | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| HEPTACHLOR | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| HEPTACHLOR EPOXIDE | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| MIREX | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| PCB-1016 (AROCHLOR 1016) | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| PCB-1221 (AROCHLOR 1221) | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| PCB-1232 (AROCHLOR 1232) | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| PCB-1242 (AROCHLOR 1242) | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |

# City of Dayton
## Pesticide Sampling History

| Sample Location / Parameters | Upstream | Inlet | E-1 | North Lagoon | Lake | H-1 | H-6 | H-10 | E-12 | E-7 | E-10 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PCB-1248 (AROCHLOR 1248) | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| PCB-1254 (AROCHLOR 1254) | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| PCB-1260 (AROCHLOR 1260) | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| TOXAPHENE | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| AATREX (ATRAZINE) | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| ACETOCHLOR | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| ALACHLOR (LASSO) | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| AMETRYN | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| ATRATON | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| BUTACHLOR | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| BANVEL (DICAMBA) | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| BENFLURALIN (BENEFIN) | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| BLADEX (CYANAZINE) | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| BROMACIL | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| CAPTAN | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| IPRODIONE (CHIPCO) | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| CARBOFURAN | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| CHLORONEB (TERRANEB) | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| CHLOROTHALONIL (BRAVO) | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| (LORSBAN,DURSBAN) | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 2,4-D | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| DICHLOBENIL (CASORON) | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| DALAPON | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| DINOSEB | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| DIMENSION (DITHIOPYR) | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| DISULFOTON | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| PROPANIL | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| DUAL (METOLACHLOR) | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| EPTAM | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| ETHION | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| ETHALFLURALIN | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| ETHOPROP | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| FLUTOLANIL | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| HEXAZINONE(VELPAR) | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| AZINPHOS-METHYL (GUTHION) | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| MELATHION | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| METALAXYL | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| METHOXYCHLOR | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| NEMACUR (FENAMIPHOS) | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| OXADIAZON (RONSTAR) | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| ETHYL PARATHION | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| METHYL PARATHION | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| (PCNB) | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |

# City of Dayton
## Pesticide Sampling History

| Sample Location / Parameters | Upstream | Inlet | E-1 | North Lagoon | Lake | H-1 | H-6 | H-10 | E-12 | E-7 | E-10 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PHORATE | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| CIS-PERMETHRIN | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| PRINCEP (SIMAZINE) | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| TRANS-PERMETHRIN | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| PRODIAMINE (BARRICADE) | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| PROMETON (PRAMITOL) | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| PROMETRYN | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| PROPACHLOR | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| PROPAZINE | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| PROPICONAZOLE (ORBIT) | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| PENDIMETHALIN (PROWL,PRE-M) | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| FENARIMOL (RUBIGAN) | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| DACTHAL (DCPA) | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| DEMETON | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| SINBAR (TERBACIL) | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| GLYPHOSATE (ROUNDUP) | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| SIMETRYN | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| TERBUTHYLAZINE | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| TERBUTRYN | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| SUTAN | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 2,4,5-TP (SILVEX) | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| VERNAM | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| VINCLOZOLIN (CURALAN) | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| TREFLAN (TRIFLURALIN) | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| PROPYZAMIDE (KERB) | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| DIAZINON | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| KEPONE | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |

**Notes: Surface water and sediment samples collected from each location in 2004. All soils data is nd**

# City of Dayton
# Pesticide Sampling History

## Kitty Hawk Sediment, Surface Water
## Results: 10/15/1999

| Sample Location / Parameters | EPA 8270, 630 | E-3 Lake south of intake | H-4 South side of Pond | K-4 Lowlying drainage area west of Pond | Mixing Area | Kitty Hawk GW Samples | River Index Surface Water Samples |
|---|---|---|---|---|---|---|---|
| Chlordane | Insect | 0.4 (s) | nd | 0.557 (s) | nd | | all nd |
| Heptachlor Epoxide | Insect | nd | nd | 0.016 (s) | nd | | |
| Banner | | nd | nd | nd | 0.056 (s) | | |
| Hexachlorobenzene | Fungi | nd | 0.25 | nd | nd | | |
| PCNB | Fungi | nd | nd | nd | 0.732 (s) | | |

## Kitty Hawk Sediment and Surface Water
## Results: 9/11/1998

| Sample Location / Parameters | Analysis Method EPA 8270 | E-8 | GH-4 | K-9 | Mixing Area | Kitty Hawk GW Samples |
|---|---|---|---|---|---|---|
| Chlordane | Insect | 0.4 (s) | 3.12 (s) | 6.57 (s) | 0.2 (s) | all nd |
| Heptachlor Epoxide | Insect | nd | nd | 0.08 (s) | nd | |
| Dimension (Dithiopyr) | Herb | nd | nd | nd | 0.3 (s) | |
| Hexachlorobenzene | Fungi | 0.16 (s) | nd | 0.25 (s) | nd | |
| Pentachloronitrobenzene | Fungi | nd | nd | nd | 6.57 (s) | |

## Storm Sewer and Sediment
## Results 1997 (USEPA 608)

| Sample Location / Parameters | Wolf Creek/ Olive Rd. | Wolf Creek/ Hickorydale | Wolf Creek/ Outfall #17 | Wolf Creek/ RR Bridge | Wolf Creek/ Outfall #15 | Wolf Creek/ Dayton Tire | Wolf Creek/ ust Rosedale | Wolf Creek/ dst Rosedale | Wolf Creek/ Mouth |
|---|---|---|---|---|---|---|---|---|---|
| alpha BHC | 0.003 | 0.003/0.002 | nd | 0.003/0.002 | 0.004/0.004 | nd | nd | 0.002 | 0.006 |
| delta BHC | nd | nd | 0.003 | 0.003 | nd | 0.003/0.003 | 0.003/0.002 | 0.003 | 0.004/0.002 |
| gamma BHC (Lindane) | nd | 0.002 | nd | 0.002 | nd | 0.003 | nd | nd | 0.005 |
| alpha Chlordane | nd | nd | nd | 7.5 (s) | nd | 9.4 (s) | 13 (s) | 12 (s) | 12 (s) |
| gamma Chlordane | nd | nd | nd | 7.5 (s) | 7.2 (s) | 11 (s) | 24 (s) | 16 (s) | 12 (s) |
| 4,4'-DDE | 0.005 | nd | 0.003 | nd | nd | nd | 66 (s) | nd | nd |
| Dieldrin | 0.012 | 0.01/0.006 | 0.006 | 0.025 | 0.006/0.011 | 0.008 | 0.003/0.007 | 11 (s)/ 0.005 | .003 |
| Endosulfan 1 | nd | nd | nd | nd | nd | 0.005 | nd | nd | nd |
| Endosulfan Sulfate | nd | 0.027 | nd | nd | 0.027 | nd | 0.032 | 0.029 | 0.039 |
| Endrine | nd | nd | nd | nd | nd | 0.002 | nd | nd | nd |
| Methoxychlor | nd | nd | 6.6 (s) | 14 (s) | 6.2 (s) | 11 (s)/0.029 | 17 (s) | 14 (s) | 11 (s) |
| Heptachlor Epoxide | 0.004 | 0.003 | 0.003/0.003 | 0.004 | 0.004 | 0.003 | nd | nd | nd |
| **Fungicide** | | | | | | | | | |
| Hexachlorobenzene | nd | nd | nd | 0.005 | nd | nd | nd | nd | nd |
| **PCB's** | | | | | | | | | |
| PCB-1248 | nd | nd | nd | nd | nd | nd | 550 (s) | nd | nd |
| PCB-1260 | nd | nd | nd | nd | nd | nd | 420 (s) | 61 (s) | 94 (s) |

# City of Dayton
## Pesticide Sampling History

| Herbicides | Wolf Creek/ Olive Rd. | Wolf Creek/ Hickorydale | Wolf Creek/ Outfall #17 | Wolf Creek/ RR Bridge | Wolf Creek/ Outfall #15 | Wolf Creek/ Dayton Tire | Wolf Creek/ ust Rosedale | Wolf Creek/ dst Rosedale | Wolf Creek/ Mouth |
|---|---|---|---|---|---|---|---|---|---|
| Benzo [a] pyrene | nd | nd | nd | nd | nd | 0.1 | nd | nd | nd |
| Bis (2-ethylhexyl) adapate | nd | nd | nd | nd | nd | 1 | nd | nd | nd |
| Bis (2-ethylhexyl) pthalate | nd | nd | nd | nd | nd | 0.6 | nd | nd | nd |

### Storm Sewer
### Results 1993 (USEPA 608)

| Sample Location / Parameters | Outfall #1 Apple St/ Cleveland PK | Outfall #2 5th St/ Sinclair | Outfall #3 Mad River/ River Corridor | Outfall #4 Mary St | Outfall #5 Lucille Dr |
|---|---|---|---|---|---|
| beta BHC (8/1993) | 0.09 | nd | 0.18/0.19 | nd | 0.48 |
| (9/1/1993) | nd | nd | nd | nd | nd |
| delta BHC (11/1993) | 0.14 | nd | nd | nd | nd |

Notes: (s) indicates soil detections in micro grams per kilogram, all other data for surface water in micrograms per liter.