United States
Environmental Protection
Agency

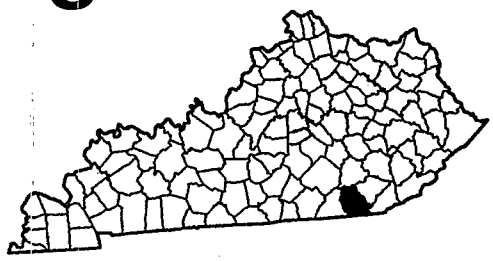
Pesticides and
Toxic Substances (7506C)

EPA-735-K-94-030
August 1994

Protecting Endangered Species

Interim Measures

Whitley County, Kentucky



The information in this pamphlet is similar to what the U.S. Environmental Protection Agency (EPA) expects to distribute once our Endangered Species Protection Program is in effect. The limitations on pesticide use are not law at this time, but are being provided now for your use in voluntarily protecting endangered and threatened species from harm due to pesticide use. We encourage you to use this information. We also welcome your comments.

The Endangered Species Act is intended to protect and promote recovery of animals and plants that are in danger of becoming extinct due to the activities of people. Under the Act, EPA must ensure that use of pesticides it registers will not result in harm to the species listed as endangered or threatened by the U.S. fish and Wildlife Service, or to habitat critical to those species' survival. To accomplish this, the EPA expects to implement program requirements beginning in 1994. This program will protect endangered and threatened species from harm due to pesticide use.

EPA requests your comments regarding the information presented in this publication. Please let us know whether the information is clear and correct. Also tell us to what extent following the recommended measures would affect you typical pesticide use or productivity. This information will be considered by EPA during the final stages of program development.

Please submit comments to:

Interim Endangered Species Protection Program (7506C)
U.S. EPA
401 M Street, SW
Washington, DC 20460

About This Publication

This publication contains a County Map showing the Area within the county where pesticide use should be limited to protect listed species. These areas are identified on the map by a shaded pattern. Each shaded pattern corresponds to a species in need of protection.

The Shading Key shows the name of the species that each shaded pattern represents and often describes the shaded area. The area may be described in terms of Township, Range, and Section or by giving details about the habitat of the species.

The first column of the "Table of Pesticide Active Ingredients" lists the active ingredients for which there should be limitations on use to protect certain species. The next columns are headed by the shaded pattern of the species with Codes listed underneath them.

The Code indicates the specific limitation that is necessary to protect the species. The section titled Limitations on Pesticide Use explains the code.

Does This Information Apply to You?

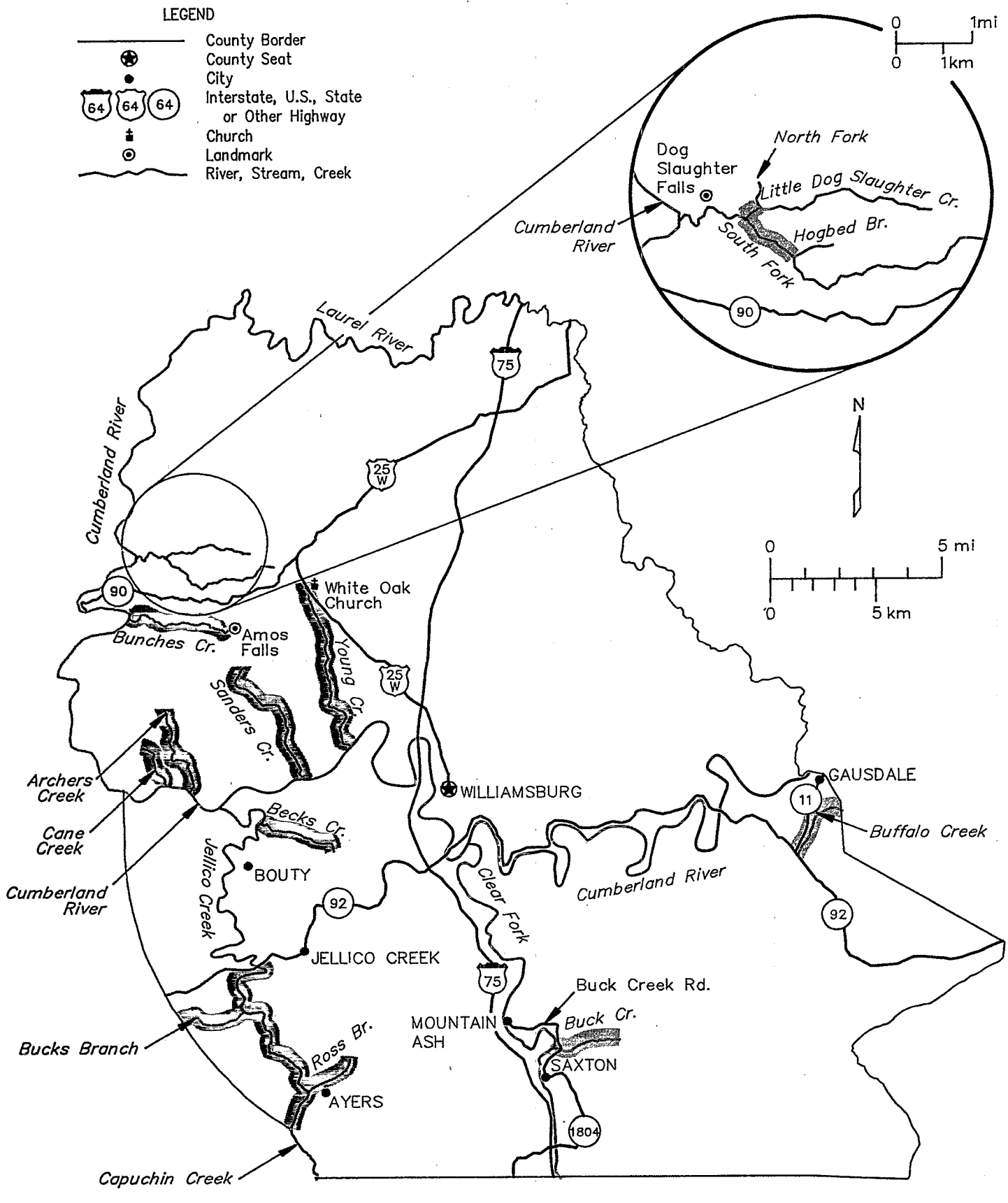
To determine whether this information applies to your use of a pesticide, review the questions below. The information applies only if you answer "yes" to both questions:

- Do you intend to use pesticides within or near the shaded area on the county map?
- Are any of the ingredients listed on the front panel of your pesticide product label named in the "Table of Pesticide Active Ingredients"?

If you answer "yes" to both questions, you should follow the instructions on "How to Use This Information" to determine if you should limit use of the pesticide to help protect listed species.

If you answer "no" to either question, you should follow the usage directions on the pesticide product label.

Whitley County, Kentucky



How To Use This Information

1) On the county map, find the specific shading patterns that cover, or are close to, the area where you will apply pesticides.
2) Read the descriptor in the Shading Key for those patterns; this may further identify the area involved.
3) In the "Table of Pesticide Active Ingredients," locate the active ingredients in the pesiticide you intend to apply.
4) Locate the codes to the right of the active ingredient name and under the shading patterns that apply to you.
5) When using the pesticide, you should follow the limitations indicated for those codes described under "Limitations on Pesticide Use."
6) If you are applying more than one listed active ingredient or applying a listed active ingredient in an area with more than one shaded pattern (species), multiple codes may apply. If so, you should follow the most restrictive limitation.
7) Read the information on Reducing Runoff and Drift on the back of this pamphlet.

Reducing Runoff and Drift

By using pesticides carefully, you can diminish harm to the environment, reduce exposure of endangered and threatened species to pesticides -- and more. By using pesticide runoff and drift reduction measures such as those outlined below, you can keep more of the pesticide you apply on the field and lower your pesticide costs.

To Reduce Runoff

Where possible, use methods that reduce soil erosion, such as limited till and contour plowing. These methods also reduce pesticide runoff.

Where feasible, use application techniques such as T banding and in-furrowing. These techniques incorporate the pesticide into the soil.

When possible, use a pesticide that does not contain a ground water warning label. Pesticides with such labels indicate a likelihood for the pesticide to enter ground or surface water.

Keep informed about changing weather conditions. Try to avoid applying pesticides when heavy rainfall is expected.

To Reduce Drift

Wind direction, wind speed and evaporation are important factors in reducing drift. Most importantly, apply pesticides when the wind direction is away from areas of concern. Try to avoid applications during high winds. Also avoid applications during the hottest part of the day, when evaporation is highest.

When high winds and excessive evaporation are not factors, use a drift retardant for aerial applications.

Use the largest droplet size compatible with the pesticide coverage. Typically, higher spray volumes will also result in less drift.

To Protect Your Land, Always Read and Follow Label Directions

Limitations on Pesticide Use

Codes/Limitations

2 Do not apply this pesticide within 40 yards from the edge of water within the shaded area for **ground applications**, nor within 200 yards for **aerial applications**.

2c For **ground applications**, do not apply this pesticide within 40 yards from the edge of water within either the shaded area or the *upstream protection zone* (described under the Shading Key). For **aerial applications**, do not apply this pesiticide within 200 yards from the edge of water within the areas described above.

3 Do not apply this pesticide within 100 yards from the edge of water within the shaded area for **ground applications**, nor within ¼ mile for **aerial applications**.

10 Do not apply **directly to water** within the shaded area. In addition, do not apply directly to water within 1 mile upstream from the shaded area.

20 Do not apply **directly to water** within the shaded area.

41 Do not apply this pesticide within ¼ mile from the edge of water within the shaded area for **ground applications**, nor within ½ mile for **aerial applications**.

43 Do not apply this pesticide within 100 yards from the edge of water within the shaded area for **ground applications**, nor within ¼ mile for **aerial applications**.

61 Do not apply this pesticide as a **mosquito larvicide** within the shaded area.

297 For **ground applications**, do not apply this pesticide above the threshold application rate (TAR) indicated within 40 yards from the edge of water within either the shaded area or the *upstream protection zone* (described under the Shading key). For **aerial applications**, do not apply within 200 yards from the edge of water within the areas described above.

399 Do not apply this pesticide above the threshold application rate (TAR) indicated within 100 yards from the edge of water within the shaded area for **ground applications**, nor within ¼ mile for **aerial applications**.

SHADING KEY

Blackside dace (fish), *Phoxinus cumberlandensis*. Within the shaded areas shown on the map, pesticide use limitations apply on and along the streams. The upstream protection zone is ½ mile up from the shaded areas on North and South Fork, Little Dog Slaughter Creek and Hogbed Creek, as well as ½ mile up all tributaries that join the shaded areas.

Table of Pesticide Active Ingredients

Active Ingredient	Shading Pattern Code	TAR*
ALDICARB	3	--
ATRAZINE (granular)	3	--
ATRAZINE (non-granular)	399	1.5
AZINPHOS-METHYL	2c	--
BENOMYL	3	--
BENSULIDE (granular)	3	--
BENSULIDE (non-granular)	399	4
CAPTAN	3	--
CARBARYL	2c	--
CARBOFURAN	3	--
CHLOROTHALONIL (granular)	3	--
CHLOROTHALONIL (non-granular)	399	2.8
CHLORPYRIFOS		
Alfalfa, Peanuts	43	--
Apples	41	--
Mosquito Larvicide Use	61	--
All Other Uses Except as a Termiticide	3	--
COPPER SULFATE, BASIC	3	--
CYPERMETHRIN		
Cabbage and Lettuce	2	--
DEF	2c	--
DIAZINON	2c,10	--
DICOFOL	399	1
DICROTOPHOS	2c	--
DIFLUBENZURON	3	--
DIMETHOATE	3	--
DISULFOTON	3	--
DIURON	3	--
ENDOSULFAN	3	--
ESFENVALERATE	3	--
ETHION	2c	--
ETHOPROP	3	--
FENAMIPHOS	2c	--
FLURIDONE	20	--
FONOFOS	3	--
ISOFENPHOS (granular)	3	--
ISOFENPHOS (non-granular)	399	0.5

Active Ingredient	Shading Pattern Code	TAR*
MALATHION	2c,10	--
MANCOZEB	399	1.25
METHIDATHION	2c	--
METHOMYL (granular)	399	0.6
METHOMYL (non-granular)	3	--
METHYL PARATHION		
Mosquito Larvicide Use	61	--
All Other Uses	3	--
MEVINPHOS	2c	--
NALED		
Mosquito Larvicide Use	61	--
All Other Uses	3	--
NITRAPYRIN	3	--
OXAMYL (granular)	3	--
OXAMYL (non-granular)	399	1.25
OXYDEMETON-METHYL	3	--
OXYFLUORFEN	3	--
PARATHION (ethyl)	2c	--
PENDIMETHALIN	3	--
PERMETHRIN	297	0.04
PHORATE	2c	--
PHOSMET	2c	--
PHOSPHAMIDON	399	4
PROFENOFOS	2c	--
PROPACHLOR (granular)	3	--
PROPACHLOR (non-granular)	399	0.4
PROPARGITE	399	1.5
PYRETHRINS	2c,10	--
SULPROFOS	3	--
TERBUFOS	3	--
THIODICARB	399	7
THIOPHANATE-METHYL	3	--
TRICHLORFON	2c	--
TRIFLURALIN (granular)	3	--
TRIFLURALIN (non-granular)	399	0.5

* TAR = Threshold Application Rate (Pounds of active ingredient per acre per application)

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