



KPDES KYG99 Pesticide Discharge Management Plan (PDMP)

KYTC District 1

State Maintained Highways and Rights-of-Way in:
Ballard, Calloway, Carlisle, Crittenden, Fulton, Graves, Hickman, Livingston, Lyon, Marshall,
McCracken and Trigg Counties
5501 Kentucky Dam Rd.
Paducah KY 42003

Decision-maker(s):

KYTC District 1
Kyle Poat, Chief District Engineer
5501 Kentucky Dam Rd.
Paducah KY 42003
(270) 898-2431

PDMP Contact(s):

KYTC District 1
Jerrod Quertermous, Roadside Environment District Administrator
5501 Kentucky Dam Rd.
Paducah KY 42003
(270) 898-2431

PMPD Preparation Date:

5/16/2025

Version:

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EXHIBITS

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- Exhibit 3 – KY Exotic Pest Plant List
- Exhibit 4 – MAIN-703, *Vegetation Management: Roadside Agronomy Program*
- Exhibit 5 – County Map
- Exhibit 6 – MAIN-702, *Vegetation Management: Planning*
- Exhibit 7 – Spill Response Plan
 - (A) Pesticide Spill Emergency Contacts List
 - (B) Spill Response Fact Sheets
 - (C) Spill or Pollution Documentation and Reporting
- Exhibit 8 – Pesticide Spill Response Training
- Exhibit 9 – Pesticides Reportable Quantities
- Exhibit 10 – Annual Reports and Other Record Keeping
- Exhibit 11 – Corrective Action Log
- Exhibit 12 – PDMP Amendment Log



SECTION 1 – OPERATOR INFORMATION

1. Provide a brief description of the Pest Management Area(s)

The Pest Management Areas for District One are the state-maintained highways and rights-of-way in Ballard, Calloway, Carlisle, Crittenden, Fulton, Graves, Hickman, Livingston, Lyon, Marshall, McCracken and Trigg Counties. These are shown in **Exhibit 1, Map of Kentucky** and **Exhibit 2, District Map**.

2. Identify the Pesticide Use Patterns for this Pest Management Area that triggers the requirement to develop a Pesticide Discharge Management Plan. (Check all that apply)

NOTE: Decision-makers, that are a large entity, are required to develop a PDMP.

- | | | | |
|-------------------------------------|--|--------------------------|---------------------|
| ☐ | Mosquitoes and Other Flying Insect Pests | ☐ | Animal Pests |
| ☒ | Weeds and Algae | ☐ | Forest Canopy Pests |

3. Operator Type (check one):

- | | |
|-------------------------------------|--|
| ☐ | Federal government |
| ☒ | State government |
| ☐ | Local government |
| ☐ | Mosquito control district (or similar) |
| ☐ | Irrigation control district (or similar) |
| ☐ | Weed control district (or similar) |
| ☐ | Other (provide brief description of type of Operator): |



SECTION 2 – PDMP TEAM

- 1. Decision-maker: Any entity with control over the decision to perform pesticide applications including the ability to modify those decisions.**

Company or Organization Name: KYTC District 1
Name: Kyle Poat
Address: 5501 Kentucky Dam Rd.
City, State, Zip Code: Paducah KY 42003
Telephone Number: (270) 898-2431
Email Address: Kyle.Poat@ky.gov

- 2. PDMP Contact: Person(s) who should be contacted regarding PDMP questions.**

Company or Organization Name: KYTC District 1
Name: Jerrod Quertermous
Address: 5501 Kentucky Dam Rd.
City, State, Zip Code: Paducah KY 42003
Telephone Number: (270) 898-2431
Email Address: Jerrod.Quertermous@ky.gov

- 3. PDMP Preparer: *Person(s) responsible for developing and revising the PDMP.***

Company or Organization Name: Linebach Funkhouser, Inc.
Name: Collin Linebach, Senior Project Scientist
Address: 114 Fairfax Avenue
City, State, Zip Code: Louisville, KY 40207
Telephone Number: (502) 721-5705
Email Address: clinebach@lfienv.com



Please include any additional team members and their responsibilities.

Team Member Name(s)	Individual Responsibilities
Brenda Jones	Roadside Management/Application Inspection
Kevin Morris	Roadside Management/Application Inspection
Eric Wring	Roadside Application/Planning
Charles Arflack	Roadside Application/Inspection/Planning
Kevin Wring	Roadside Application
Michael Clark	Roadside Application
Henry Luken	Engineering Support Branch Manager
Brad Whybark	Environmental Coordinator

Roadside Environmental District Administrator (REDA)

Assures compliance with permits are maintained during all aspects of selection, storage, handling and application of pesticides.

Central Office (CO) Division of Environmental Analysis

Produces the *KYTC Environmental Handbook for Maintenance of Highways and Transportation Facilities (Environmental Handbook)* that contains basic information regarding pesticide storage and handling at facilities and guidance in the event of a spill and fact sheets for proper storing, handling, delivery and use of pesticides.

CO Division of Maintenance Roadside Environment Branch

Develops statewide roadside vegetation management programs, develops contracts for pesticide materials and pesticide application services, develops specifications for pesticide application equipment, supervises the UK Vegetation Management Research Program, conducts pesticide test trials, and provides pesticide recommendations and other technical expertise for the REDAs.

Roadside State Administrator

Responsible for establishing guidelines and procedures for storing, handling and using pesticides for Vegetation Management (**See the Kentucky Transportation Cabinet (KYTC) Pesticide Manual and Maintenance Manual**).

Exhibit 1 shows a map of Kentucky with the 12 district offices and their counties and depicts how the KYTC is organized geographically. **Exhibit 2** is a map of the district being addressed in this particular PDMP and more clearly shows the counties and the significant roadways.



SECTION 3 – PROBLEM IDENTIFICATION

3.1 Pest Problem Description

Provide a brief summary of the pest problem in the table.

SUMMARY OF THE PEST PROBLEM		
TARGET PEST(S) <i>Note: Use Common Name</i>	SOURCE OF THE PEST PROBLEM	DATA SOURCE <i>(e.g. Survey Conducted in 2010)</i>
Noxious Weeds Nuisance Weeds Exotic Invasive Plants Trees and Brush	Statutory Requirement Highway Safety Highway Construction and Maintenance Highway Beautification	Historical Pests Integrated Roadside Vegetation Management Plans (IRVM) Pesticide Field Reports Windshield Surveys Citizen Complaints Exotic Plant Invasions Early Detection & Distribution (EDD) Maps

Provide a brief description of the pest problem.

Noxious weeds, nuisance weeds, exotic invasive plants, and trees and brush are all pests targeted by the Kentucky Transportation Cabinet. The Noxious Weed Law [KRS 176.051](#) requires KYTC to control the following eight designated weed species on highway rights-of-way:

- o Amur Honeysuckle
- o Canada Thistle
- o Common Teasel
- o Cutleaf Teasel
- o Japanese Knotweed
- o Johnsongrass
- o Kudzu
- o Maretail
- o Multiflora Rose
- o Nodding Thistle
- o Poison Hemlock
- o Spotted Knapweed

Nuisance weeds are defined as any plant species whose presence is incompatible with the right-of-way vegetation management zone where it is located. Since it is theoretically possible for any plant species to be considered a nuisance weed in a given setting, it would not be practical to list all nuisance weeds.

Exotic invasive plants are not native to Kentucky. They have been documented to reproduce and spread aggressively into both natural and disturbed areas including highway rights-of-way where



they invade and displace desirable vegetation and whose presence is a threat to biological diversity and environmental quality. See **Exhibit 3**, the official **Kentucky Exotic Pest Plant List**.

Trees and brush encroaching onto highway rights-of-way reduce motorist visibility, may become hazardous and fall into the roadway, damage bridges and embankments, limit the effectiveness of deicing chemicals, and are obstacles in roadway recovery zones.

Since there are hundreds of species of trees and brush that can encroach on highway rights-of-way, it is not practical to list the species.

Guidelines for weed & brush control are shown in **Exhibit 4**, **MAIN-703, Roadside Agronomy Program**.

3.2 ACTION THRESHOLD(S)

1. **Provide a brief summary of the action threshold(s) in the table.**

SUMMARY OF ACTION THRESHOLD(S)	
TARGET PEST(S)	ACTION THRESHOLD(S)
Noxious Weeds Nuisance Weeds Exotic Invasive Plants Trees and Brush	These are based upon prior surveys and experience to properly maintain the KYTC maintained highways for safety, usability & aesthetics.

2. **Provide a brief description of the action threshold(s).**

- o **Pest Management Objective:** Safety, highway usability and aesthetics.
- o **Target Pest:** See the list in **Section 3.1**.
- o **Action Threshold:** See statement in table above.
- o **Basis for the action threshold:** Line of sight is one basis for vegetation along roadside and rights-of-way.
- o **Method to determine when the action threshold has been met:** Test drive the road to confirm line of sight improvement and compliance.

3.3 GENERAL LOCATION MAP

A general location map for District One is presented in **Exhibit 1, Map of Kentucky** and **Exhibit 2, District Map**.

3.4 WATER QUALITY STANDARDS

There are five Tier 3 Waters per our review of the Environmental Protection Agency (EPA)



provided listing. Kentucky has Special Use Waters that must be protected from all pollution including pesticides. Both Tier 3 Waters and Special Use Waters of the Commonwealth are delineated in 401KAR 10:026 and 10:030.

There are no waters of the Commonwealth that are impaired for the pesticides used or their degradates.

The location of the waters of the Commonwealth, including wetlands that could reasonably be impacted by our application of pesticides as depicted in **Sections 3 and 4** are illustrated in **Exhibit 5, Pesticide PDMP Waterways Map** and are stored electronically for each of the counties at the following KYTC location:

S:\Projects\Enviro\DEA_Share\PesticidePermit\COUNTIES.

These Waters are also shown in Projectwise which may be accessed at:

ProjectwiseExplorer>KYTC-Main>Documents>CentralOffice>EnvironmentalAnalysis>KYDPES KYG99>CountyMaps>District 1-12.

Central office and district team members may request electronic access to the location maps through the [CO Division of Environmental Analysis](#).

Location maps for Outstanding National Resource Waters, Outstanding State Resource Waters (OSRW) and other Special Use Waters may also be found on the [Kentucky Division of Water website](#).



SECTION 4: PEST MANAGEMENT OPTIONS EVALUATED

1. Provide a brief description of the pest management options (include impact to water quality, impact to non-target organisms, feasibility, cost effectiveness and any relevant previous Pest Management Measures).

- o **Target Pest:** Noxious Weeds, Nuisance Weeds, Exotic Invasive Plants, Trees and Brush
- o **No Action:** Due to the statutory requirement, this is not an option regarding noxious weeds, but there are circumstances where no action is taken to control nuisance weeds, exotic invasive plants, and trees and brush. Factors which may influence this decision are availability of effective controls, funding, staffing, local acceptance of pesticide use, target species prioritization, traffic control requirements, and level of infestation. The impact to water quality and non-target organisms of taking no action is not necessarily nominal. Uncontrolled spread of noxious weeds, nuisance weeds, and exotic invasive plants may completely alter the ecosystem to the point where soil erosion may occur and critical habitat is lost. This option may be feasible in the short-term for these species, but much greater costs will be incurred in future years once infestations are established. There are examples of such experiences in the history of KYTC where a short-term pause in vegetation management had detrimental effects.

Policies governing the KYTC roadside vegetation maintenance program including the pesticide, mowing, tree and brush, and pesticide training programs and sprayer equipment operation are covered in **MAIN-700**.

KYTC Districts are required to submit an annual plan for maintenance of all vegetation. See **MAIN-702, Vegetation Management: Planning** (Exhibit 6).

- o **Prevention:** This is an important component of KYTC's integrated roadside vegetation management program which includes several measures to prevent the spread of noxious weeds, nuisance weeds, exotic invasive plants, trees and brush. Proper maintenance of a healthy roadside turf through the use of timely mowing, fertilization, seeding, and herbicide application is the best prevention for spread of noxious weeds, nuisance weeds, exotic invasive plants, trees and brush. Contract mowing sanitation requirements, use of cellulose fiber mulches instead of straw, use of pre-emergence herbicides, and use of high-quality seed for vegetation establishment are all preventative controls used by the Department. Preventative measures can be very cost effective with little to no impact on water quality and non-target organisms and have historically been successful.
- o **Mechanical/Physical Methods:** Right-of-way mowing is KYTC's primary mechanical method of weed control. Tillage and cultivation are used to a very limited extent, but only on wildflower establishment sites. Mechanical methods such as right-of-way mowing are the most expensive, may encourage soil erosion,



disrupt both plant and animal non-target organisms and are the least sustainable of all control methods.

- o **Cultural Methods:** The use of KY 31 Tall Fescue, a vigorous and aggressive turfgrass species along with a good fertilization program is KYTC's primary cultural control method. Cultural methods have moderate impact on water quality, non-target species, are moderately expensive and have a long history of success.
- o **Biological Control Agents:** KYTC has facilitated the release of insect biological agents for both nodding thistle and purple loosestrife. The effectiveness of these varies from location to location, but they have made a significant impact on reducing nodding thistle populations. These are very low cost methods that have a low impact on non-target species with no impact on water quality and a history of good success.
- o **Pesticides:** Pesticides are a moderately expensive, cost-effective control method that when used properly have minimal impact on water quality and non-target species with a history of good success. Guidance on the administration, use, and application of pesticides and MSDS sheets for all pesticides KYTC utilizes in its vegetation management program may be found at on the [CO Division of Maintenance Roadside Environment Branch website](#).

2. Provide a summary of Pest Management Measures that will be or are implemented to meet the technology-based effluent limitations.

- o **Target Pest:** Noxious Weeds
- o **Pest Management Measures:** The use of strategically-timed mechanical mowing, mowing equipment sanitation, use of weed-free seed in turfgrass establishment, insect biological control, mechanical ditch maintenance, and policies are all measures utilized by KYTC to minimize the need for herbicide applications.
- o **Target Pest:** Nuisance Weeds
- o **Pest Management Measures:** The use of strategically-timed mechanical mowing, mowing equipment sanitation, use of weed-free seed in turfgrass establishment, insect biological control, mechanical ditch maintenance, and policies are all measures utilized by KYTC to minimize the need for herbicide applications.
- o **Target Pest:** Exotic Invasive Plants
- o **Pest Management Measures:** The use of strategically-timed mechanical mowing, mowing equipment sanitation, use of weed-free seed in turfgrass establishment, insect biological control, mechanical ditch maintenance, and policies are all measures utilized by KYTC to minimize the need for herbicide applications.



-
- o **Target Pest:** Trees and Brush
 - o **Pest Management Measures:** The use of strategically-timed mechanical mowing, mechanical removal methods, mowing equipment sanitation, use of weed-free seed in turfgrass establishment, insect biological control, mechanical ditch maintenance, proper right-of-way tree species selection, and policies are all measures utilized by KYTC to minimize the need for herbicide applications.



SECTION 5: RESPONSE PROCEDURES

5.1 SPILL RESPONSE PROCEDURES

Spill Containment

Spill containment shall follow the procedures as prescribed in the KYTC Environmental Handbook, MAIN- 700 of the Maintenance Guidance Manual and **Exhibit 7, *Spill Response Plan*** includes parts (A), ***Pesticide Spill Emergency Contacts List***, (B) ***Spill Response Fact Sheets***, and (C) ***Spill or Pollution Documentation and Reporting***.

KYTC applicators are properly trained and certified in compliance with the Federal Insecticide Fungicide, and Rodenticide Act (FIFRA). Pesticide manufacturer labels as well as the Material Safety Data Sheets (MSDS) are used to determine proper use of personal protective equipment (PPE) and apparel, how to properly apply the pesticide, how to detect a spill or Adverse Incident (AI), and how to apply the absorbent materials provided in our spill kits to mitigate any environmental damage due to a spill. Spill response and cleanup would be contracted out to qualified contractors if the Office of Safety and Health Administration (OSHA) trained HazMat responders are required to handle pesticides with hazardous “active ingredients” listed.

The Spill Response Team will consist of the applicator, Maintenance Facility Superintendent I or II, REDA, Section Supervisor (or designee) and the Section Engineer. Each district has a Facility Maintenance Environmental Coordinator (FMEC) that may be appointed to this team. Each district Section Supervisor has three to four counties within their district. The ***Spill Response Plan*** for each district will incorporate the procedures set forth in the above referenced documents (**Exhibit 7**). The Applicators that apply various pesticides under the auspices of the Section Supervisor and the REDA are trained on how to and when not to respond when OSHA trained HazMat responders are required. Notification and containment procedures should be specific to how the pesticide operation in each county is organized and how these fit into the overall organization of the district and how the districts are organized in KYTC Department of Highways.

All of the critical elements for spill response procedures and a description of our pesticide spill kits are included in one of the KYTC training programs entitled ***Pesticide Spill Response (Exhibit 8)***.

Spill Notification

Districts should use the ***Pesticide Spill Emergency Contacts List, Exhibit 7 (A)*** to notify personnel of pesticide spills. Each district shall follow the guidelines shown in **Exhibit 7 (B), *Spill Response Fact Sheets* (5.1, 2005 edition and 5.3, 2008 edition) of the KYTC Environmental Handbook**.

For pesticide spills exceeding reportable quantities (See 40 CFR 302 and the ***Pesticides Reportable Quantities List, Exhibit 9***) or into or next to the Waters of the Commonwealth, the Applicator (or witness) will first attempt to prevent or minimize the spill’s entrance to or impact on the waterway, if they can safely do so then immediately contact the Spill Response Team to provide the details of the spill as well as other information required by FIFRA.



5.2 ADVERSE INCIDENT RESPONSE PROCEDURES

Responding to an Adverse Incident

An Adverse Incident (AI) is defined as a spill that includes toxic or adverse effects on non-target species due to improper application of a pesticide or an accidental incident.

An AI involving the toxic or adverse impact on the surface waters shall follow the same procedures as described in **Section 5.1**.

All AIs shall be documented and reported in accordance with the FIFRA, Section 6(a) (2), Clean Water Act (CWA), and 40CFR part 159. The Spill Response Team will provide required immediate notifications to the National Response Center, 911/local emergency services, and Kentucky Emergency Management. All AIs shall be submitted in writing to the appropriate Kentucky Division of Water (KDOW) Regional Office within thirty days of the incident.

Notification of an Adverse Incident

Notification of an Adverse Incident (AI) shall follow the procedure as described in **Section 5.1**. (See Exhibit 7(A), *Pesticide Spill Emergency Contacts List*).



SECTION 6: DOCUMENTATION TO SUPPORT ELIGIBILITY CONSIDERATIONS UNDER OTHER FEDERAL LAWS

This is not required by the Kentucky Division of Water (KDOW) Kentucky General Permit (KYG99).



SECTION 7: SIGNATURE REQUIREMENTS

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the application of pesticides, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: _____ Title: _____

Signature: _____ Date: _____

Per 401 KAR 5:060 Section 4 and 40 CFR 122.22(a)(3) the signing entity includes:

For a municipality, State, Federal, or other public agency. By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:

- (i) The chief executive officer of the agency, or
- (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).



SECTION 8: PDMP PLAN MODIFICATIONS

Please see **Exhibit 10, *Annual Reports and Other Record Keeping***, **Exhibit 11, *Corrective Action Log*** and **Exhibit 12, *PDMP Amendment Log***.



SECTION 9: PDMP AVAILABILITY

The Pesticide Discharge Management Plan is available by contacting the Roadside Administrator and Environmental Coordinator in the District Office or the Division of Maintenance and the Department of Environmental Analysis in Central Office.

Exhibit 1
MAP OF KENTUCKY – 12 DISTRICTS

KENTUCKY TRANSPORTATION CABINET HIGHWAY DISTRICTS

District Office locations in red

The map displays the 12 highway districts of Kentucky, each assigned a number and a color. District office locations are marked with red stars. The districts are as follows:

- District 1 (Purple):** Paducah
- District 2 (Pink):** Madisonville
- District 3 (Green):** Bowling Green
- District 4 (Blue):** Elizabethtown
- District 5 (Yellow):** Louisville
- District 6 (Light Blue):** Covington
- District 7 (Gray):** Lexington
- District 8 (Orange):** Somerset
- District 9 (Light Green):** Flemingsburg
- District 10 (Light Blue):** Jackson
- District 11 (Dark Blue):** Manchester
- District 12 (Light Green):** Pikeville

Surrounding states are labeled: OHIO, INDIANA, WEST VIRGINIA, ILLINOIS, MISSOURI, TENNESSEE, and VIRGINIA. A compass rose is located in the top right corner.



Exhibit 2
DISTRICT MAP



- Functional Classification**
- Interstate; Rural, Urban
 - Expressways; Rural, Urban
 - Principal Arterial; Rural, Urban
 - Minor Arterial; Rural, Urban
 - Major Collector; Rural, Urban
 - Minor Collector; Rural, Urban
 - Local; Rural, Urban
 - Local; Paved, Unimproved
 - Bridge
 - Railroad
 - Stream
 - City/Town
 - Airport
 - Federal Aid Urbanized Area 2010
 - Incorporated Area
 - Lake
 - State Park
 - National Park or Recreation Area
 - Defense Facility
 - Wildlife Area
 - Geological Area
 - State, National, or Private Forest

MISSOURI

ILLINOIS

TENNESSEE

UNION

STER

HOF

CALDWELL

TEAM
KENTUCKY
TRANSPORTATION
CABINET

Functional Classification
HIGHWAY DISTRICT 1

4 2 0 4 8 Miles

Last map revision: FEBRUARY 2023
Road centerlines collected using GPS technology
Kentucky State Plane Coordinate System (NAD83)
transportation.ky.gov/planning

Functional Classification HIGHWAY DISTRICT 1 KENTUCKY

The Kentucky Transportation Cabinet does not warrant that the information contained on this map is accurate or complete. The Kentucky Transportation Cabinet states that all attempts are made to ensure the correctness of data before posting and is based on the best available information at a given time but does not make any claim or representation as to the accuracy or completeness of the information. The information is provided for informational purposes only and should not be used for any other purpose. The information is provided for informational purposes only and should not be used for any other purpose. The information is provided for informational purposes only and should not be used for any other purpose.

Exhibit 3
KENTUCKY EXOTIC PLANT PEST LIST

Kentucky Noxious Weeds



1. Marehail



2. Johnsongrass



3. Canada Thistle



4. Japanese Knotweed



5. Multiflora Rose



6. Common Teasel



7. Kudzu



8. Amur Honeysuckle



9. Nodding Thistle

		
10. Spotted Knapweed	11. Cutleaf Teasel	12. Poison Hemlock
Paste Image	Paste Image	Paste Image
Add Text	Add Text	Add Text
Paste Image	Paste Image	Paste Image
Add Text	Add Text	Add Text

Exhibit 3

KY EXOTIC PEST PLANT LIST

Severe Threat

Exotic plant species which possess characteristics of invasive species and spread easily into native plant communities and displace native vegetation; includes species which are or could become widespread in Kentucky.

<i>Ailanthus altissima</i>	tree-of-heaven
<i>Alliaria petiolata</i>	garlic mustard
<i>Carduus nutans</i>	musk thistle
<i>Celastrus orbiculata</i>	oriental bittersweet
<i>Conium maculatum</i>	poison hemlock
<i>Coronilla varia</i>	crown vetch
<i>Dioscorea oppositifolia</i>	Chinese yam
<i>Elaeagnus umbellata</i>	autumn olive
<i>Euonymus alatus</i>	winged euonymus, burning bush
<i>Euonymus fortunei</i>	winter creeper
<i>Festuca arundinacea</i> (= <i>Lolium arundinaceum</i>)	Kentucky 31 fescue
<i>Lespedeza cuneata</i>	sericea lespedeza
<i>Ligustrum sinense</i> , <i>L. vulgare</i>	privet
<i>Lonicera japonica</i>	Japanese honeysuckle
<i>Lonicera maackii</i> , <i>L. morrowi</i> , <i>L. tatarica</i>	amur/bush honeysuckle, Morrow's, tartarian h.s.
<i>Lythrum salicaria</i>	purple loosestrife
<i>Melilotus alba</i>	white sweet clover
<i>Melilotus officinalis</i>	yellow sweet clover
<i>Microstegium vimineum</i>	Japanese grass
<i>Miscanthus sinensis</i>	Chinese silver grass
<i>Paulownia tomentosa</i>	Princess tree
<i>Phragmites australis</i>	common reed
<i>Polygonum cuspidatum</i>	Japanese knotweed
<i>Pyrus calleryana</i>	callery pear
<i>Pueraria lobata</i>	kudzu
<i>Rosa multiflora</i>	multiflora rose
<i>Sorghum halepense</i>	Johnson grass
<i>Stellaria media</i>	chickweed

Exhibit 3

KY EXOTIC PEST PLANT LIST

Significant Threat

Exotic plant species which possess some invasive characteristics but have less impact on native plant communities; may have the capacity to invade natural communities along disturbance corridors, or to spread from stands in disturbed sites into undisturbed areas, but have fewer characteristics of invasive species than #1 rank.

Akebia quinata	akebia
Albizia julibrissin	mimosa
Arthraxon hispidus	hairy jointgrass
Arctium minus	common burdock
Berberis thunbergii	Japanese barberry
Bromus inermis	smooth brome
Centaurea biebersteinii	spotted knapweed
Chrysanthemum leucanthemum	ox-eye daisy
Cirsium arvense	Canada thistle
Daucus carota	Queen Anne's lace
Dipsacus sylvestris	common teasel
Eleusine indica	goose grass
Glechoma hederacea	ground ivy
Hedera helix	English ivy
Ipomoea hederacea	ivy-leaved morning-glory
Ipomoea purpurea	purple morning-glory
Lespedeza bicolor	bicolor lespedeza
Lespedeza stipulacea (=Kummerowia)	Korean lespedeza
Lespedeza striata (= Kummerowia)	Kobe lespedeza
Mentha piperata	mint
Morus alba	white mulberry
Mosla dianthera	miniature beefsteak
Ornithogalum umbellatum	star-of-Bethlehem
Poa pratensis	bluegrass
Polygonum cespitosum	bunchy knotweed
Polygonum persicaria	lady's thumb
Populus alba	white poplar
Rorippa nasturtium-aquaticum	water cress
Setaria faberi	giant foxtail
Setaria viridis	green foxtail
Spiraea japonica	Japanese spiraea
Vinca minor	lesser periwinkle

Exhibit 3

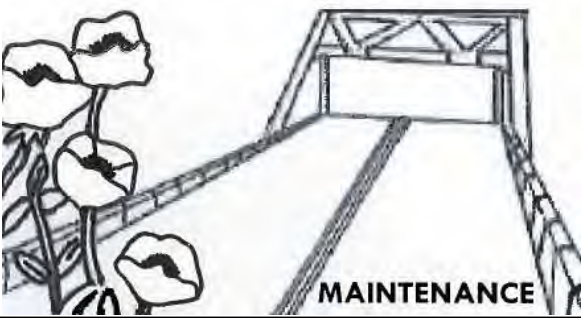
KY EXOTIC PEST PLANT LIST

Lesser Threat

Exotic plant species which seem to principally spread and remain in disturbed corridors, not readily invading natural areas; also some agronomic weeds.

<i>Arenaria serpyllifolia</i>	thyme-leaf sandwort
<i>Barbarea vulgaris</i>	yellow rocket
<i>Chenopodium album</i>	lamb's quarters
<i>Chenopodium ambrosioides</i>	Mexican tea
<i>Cichorium intybus</i>	chicory
<i>Commelina communis</i>	dayflower
<i>Convolvulus arvensis</i>	field bindweed
<i>Dianthus armeria</i>	Deptford pink
<i>Duchesnea indica</i>	Indian strawberry
<i>Echinochloa crus-galli</i>	barnyard grass
<i>Eragrostis cilianensis</i>	lovegrass
<i>Galium pedemontanum</i>	cleavers
<i>Hemerocallis fulva</i>	day lily
<i>Holcus lanatus</i>	velvet grass
<i>Hypericum perforatum</i>	common St. John's-wort
<i>Lactuca saligna</i>	willowleaf lettuce
<i>Lamium amplexicaule</i>	henbit
<i>Leonurus cardiaca</i>	motherwort
<i>Lespedeza thunbergii</i>	shrubby lespedeza
<i>Lithospermum arvense</i>	corn-gromwell
<i>Lolium multiflorum</i>	Italian rye
<i>Medicago lupulina</i>	black medic
<i>Nepeta cataria</i>	catnip
<i>Oxalis stricta</i> (= <i>O. europea</i>)	common yellow wood-sorrel
<i>Poa annua</i>	speargrass
<i>Poa compressa</i>	"Canada" bluegrass
<i>Potentilla recta</i>	sulphur five-fingers
<i>Ranunculus bulbosus</i>	bulbous buttercup
<i>Rumex acetosella</i>	dock, sheep sorrel
<i>Solanum dulcamara</i>	bitter nightshade
<i>Thlaspi perfoliatum</i>	field cress

Exhibit 4
MAIN-703 VEGETATION MANAGEMENT:
ROADSIDE AGRONOMY PROGRAM

	Chapter VEGETATION MANAGEMENT
	Subject Roadside Agronomy Program

**LANDSCAPE PLANT
MAINTENANCE**

The Department of Highways shall maintain landscape plantings on all roads that are the responsibility of the Department.

Any landscape plantings placed on the right of way through a permit shall be the responsibility of the permittee.

A landscape maintenance program shall include the following:

- Designation of areas where work will be performed and approximate time work will be done
- Determination of type work to be performed
- Selection of pesticides, if needed
- Determination of equipment needs and availability

Landscape plants shall be periodically fertilized. The Division of Maintenance may recommend the proper rates of fertilizer and approximate times of application.

All pesticides used by the Department shall be approved by the Division of Maintenance before use in the districts. The Division of Maintenance will provide the districts with proper recommendations on specific pesticides before actual application. The following pesticides may be used:

- Insecticides—In areas where insects are damaging plants, insecticides shall be applied for control.
- Fungicides—In areas where fungus diseases are damaging landscape plants, fungicides shall be applied for proper control.
- Herbicides—Where applicable, herbicides may be used around plants and in shrub beds to control weed growth. Personnel shall carefully observe proper chemical application rates so as to not injure landscape plants.

LANDSCAPE PLANT**MAINTENANCE****(CONT.)**

Where practical, mulching material may be used around landscape plants, so as to retard weed growth and preserve soil moisture.

All tree stakes shall be removed during the second year of establishment. Dead plants on all projects accepted for maintenance should be removed as soon as possible.

Plants should be pruned, where needed, to ensure proper growth and development. Proper pruning techniques shall be applied as recommended by the Division of Maintenance.

**SEEDING,
PROTECTION,
& FERTILIZATION**

The Department shall perform proper seeding and protection techniques on roadside areas where grass or other vegetative ground cover is lacking and the potential for soil erosion is imminent. The Department may also perform proper maintenance practices to provide adequate fertility for established grass turf and other vegetative ground cover.

These seeding and protection techniques and the application of fertilizers to roadsides shall comply with the Kentucky Department of Highways' "Seeding and Protection and Fertilization Program Chart" ([Exhibit MAIN 9033](#)).

**WILDFLOWERS &
NATIVE GRASSES**

The Department may choose to seed wildflowers or native grasses at selected locations on highway roadsides to enhance the aesthetic value of the roadside landscape.

All wildflower and native grass species shall be approved by the Division of Maintenance before planting or seeding.

**WEED & BRUSH
CONTROL**

The Department shall perform proper maintenance techniques to control weeds and brush on highway rights-of-way.

The use of pesticides to accomplish this task shall comply with the [Federal Insecticide, Fungicide, and Rodenticide Act](#) (FIFRA); with the Kentucky Department of Agriculture Pesticide Use and Application Act ([KRS 217B](#)); and as dictated by the Kentucky Department of Highways' "Pesticide Program Chart".

Each division shall coordinate the application of pesticide products to highway roadsides with mowing operations scheduled to be performed on the same areas.

When using pesticides to control roadside brush, maintenance personnel shall take care to allow for a minimum of discoloration. Excessive discoloration of brush should be avoided.

**NOXIOUS WEED
CONTROL**

The Department shall perform proper techniques to control the following noxious weeds on all highway rights-of-way in accordance with [KRS 176.051](#):

- Nodding (Musk) Thistle
- Canada Thistle
- Johnson Grass
- Giant Foxtail
- Multi-Flora Rose
- Wild Cucumber
- Black Nightshade
- Kudzu

Upon written request from abutting property owners engaged in the eradication of these noxious weeds, the Department will cooperate with such abutting property owners by controlling such noxious weeds from abutting state rights-of-way.

Also, in accordance with KRS 176.051, the Department shall no later than the first week in March of each year advertise in each county, pursuant to the provisions of [KRS Chapter 424](#), that the noxious weed control program is available. The Department shall stipulate in these advertisements the place and manner in which an interested property owner may make a written request for inclusion in the noxious weed control program.

Upon notice that a county fiscal court declares their specific county a thistle eradication area, the Department, in accordance with [KRS 249.183](#), shall comply with the [Department of Agriculture](#) by eradicating the thistle from the highway rights-of-way in that county.

**SELECTION OF
PESTICIDES**

The Division of Maintenance shall select and recommend approved pesticides for each type of application as noted in the Kentucky Department of Highways' "Pesticide Program Chart." The Division of Maintenance will provide the districts with an updated copy of the "Pesticide Program Chart" as needed.

The Division of Maintenance will prepare a [Pesticide Manual](#) available to all maintenance personnel trained in the use and handling of pesticides.

**SELECTION OF
PESTICIDES
(CONT.)**

Maintenance employees involved in the storage, handling, use, and disposal of all pesticides and their containers shall retrieve the Label and Material Safety Data Sheet (MSDS) of each approved pesticide product from the Roadside Environment Branch website:

<http://transportation.ky.gov/Maintenance/Pages/Pesticide-Labels.aspx>

The storage, use, handling, and disposal of pesticides and their containers shall conform to the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) and to KRS 217B.

**RESTRICTIONS OF
PESTICIDE USE**

Maintenance personnel shall not apply pesticides (used for control of weeds and brush on roadsides) to the following:

- Fence rows not on state right of way
- National forest areas, unless by permit from the [National Forest Service](#)
- Areas adjacent to susceptible crops
- Areas of standing or moving water

**APPLICATION OF
PESTICIDES**

Pesticide applications shall comply with federal label regulations and shall not be made until the personnel actually doing the spraying have been well informed as to the pesticide product, its mode of action, and the correct method of its application.

Before applying pesticides, the district shall adequately plan each application to assure effective control giving consideration to the stages of vegetative growth and types of vegetation present. The district shall use the "Pesticide Program Chart" to select pesticides to be used and to determine the method, rate, and timing of applications.

Maintenance personnel shall not apply pesticides when wind velocity would move the product off target.

Each division shall coordinate spraying operations with mowing activities when both are to be performed on the same area during the year. Before undertaking mowing operations, maintenance personnel shall allow sufficient time following pesticide applications for the pesticide to be effective. If the proper amount of time cannot be allowed following an application, maintenance personnel shall mow the area first and apply the pesticide product to the vegetative regrowth when adequate growth is present.

**APPLICATION OF
PESTICIDES (CONT.)**

Bare ground product applications shall not deviate from the "Pesticide Program Chart" as to rates and application. Maintenance personnel shall keep the use of hand applicators to a minimum. When using hand applicators, maintenance personnel shall take care when applying to areas such as pavements, sealed shoulders, sealed traffic islands, and sign posts to prevent the product from moving off target through other applications.

Maintenance personnel shall apply pesticides for weed control as directed by the "Pesticide Program Chart". Pesticides can control woody vegetation that is 30 inches or less in height in accordance with procedures outlined in the "Pesticide Program Chart" under the Broadleaf Weed Control Section.

The control of brush with the application of selective pesticides shall be limited to those areas where brush encroachment on roadsides creates a safety sight distance problem or impedes roadside drainage. Maintenance personnel can make these applications between August 1 and the time of normal leaf drop in the fall.

Caution will be taken in the selection and application of pesticides for a minimum discoloration of brush. Excessive discoloration of brush shall be avoided.

In areas where brush is removed from roadsides by mechanical or hand cutting methods, maintenance personnel shall treat stumps with the pesticide product recommended by the "Pesticide Program Chart" to prevent resprouting.

**GROWTH REGULATOR
PESTICIDES**

Maintenance personnel shall apply plant growth regulators:

- In selected areas for height control of grasses and to prevent the emergence of a seed head on those grasses
- In the spring when the grasses are in an active stage of growth prior to the time of seed head emergence
- On well established grasses and not to newly seeded grass areas
- Only one time to any area during any one growing season

Areas to be considered when applying plant growth regulators are:

- Vegetative areas 10—15 feet behind guardrails where mowing is difficult or unsafe
- Vegetative shoulder areas between pavement and guardrails
- Narrow vegetated raised medians

**GROWTH REGULATOR
PESTICIDES (CONT.)**

- Slopes where grass height needs to be controlled and the areas are
- difficult or unsafe to mow
- Areas heavily landscaped where mowing is difficult
- Interchange ramps, islands, and other areas where mowing is difficult or unsafe and grass height must be controlled
- Under guardrails where the use of bare ground products is not available.

PESTICIDE REPORTS The crew superintendent shall:

- Complete daily a TC 71-108 form, Pesticide Field Report ([Exhibit MAIN-9021](#))
- Sign and date the TC 71-108
- Submit the TC 71-108 to the Division of Maintenance where it will be filed

The Operations Management System (OMS) maintains a monthly inventory of pesticide materials in stock.

PESTICIDE LABEL

The pesticide label is the legal document dictated by federal and state laws and regulations that specifies the proper and correct method for storing, using, and disposing of a pesticide and its container.

Maintenance personnel shall adhere to label directions at all times. Maintenance personnel shall contact the [National Pesticide Information Center](#) (NPIC) if they cannot locate a label for a pesticide.

**STORAGE OF
PESTICIDES**

Maintenance personnel shall store pesticides:

- In an area separate from the office and from seed and fertilizer storage areas

Note: A sign shall be posted on the storage building stating “Pesticide Storage”.

- In their original container as labeled

Note: If a pesticide product’s packaging becomes deteriorated due to shipping damage or extended storage life, maintenance personnel shall contact the [Division of Environmental Services](#) in the Department of Agriculture.

**STORAGE OF
PESTICIDES (CONT.)**

Their instructions on repackaging the pesticide product and any necessary cleanup shall be followed explicitly.

**MIXING OF
PESTICIDES**

Maintenance personnel shall mix pesticides in accordance with label directions. The Kentucky Department of Highways' [Pesticide Manual](#) includes specific directions for mixing pesticides.

Maintenance personnel shall wear the following protective equipment when mixing a pesticide:

- Liquid proof gloves
- A hat or hood to cover the head
- Goggles or face shield to protect the eyes
- Liquid proof apron

**DISPOSAL OF
PESTICIDE
CONTAINERS**

Maintenance personnel shall:

- Triple rinse empty pesticide containers with the rinse solution (rinsate) being poured into the spray tank
- Crush or puncture the containers
- Take the containers to an approved sanitary landfill

The Pesticide Manual includes a list of currently approved sanitary landfills.

PESTICIDE SPILLS

A pesticide spill is that condition where an amount of a pesticide product concentrate greater than the label recommended application rate has been spilled onto a surface area.

- Minor Spill—Condition where a gallon or less of a pesticide product concentrate has been spilled. This type of spill may be cleaned up by washing off or applying an absorbent type material.
- Major Spill—Condition where large areas or volumes of concentrate are involved. In the event of a spill of this type, onsite district personnel shall:
 1. Keep people away
 2. Contact the roadside environment district administrator

**PESTICIDE SPILLS
(CONT.)**

3. Contact the Division of Maintenance's Roadside Environmental Branch staff
4. Call state police or sheriff
5. Send a written report through the CDE to the Division of Maintenance after the spill has been cleaned

**INSECTICIDE
APPLICATION**

The Division of Maintenance shall preapprove all insecticides applied on highway rights-of-way including rest areas.

The method and rate of application of the insecticide shall conform to the pesticide label.

When applying an insecticide, the Materials Safety Data Sheet shall be available to and in the presence of the applicator.

Also the applicator shall wear the following protective clothing when applying an insecticide:

- Hard hat (approved head gear)
- Coveralls (approved for insecticide applications)
- Rubber gloves
- Eye protection (goggles or face shield)
- Respirator (for insecticide applications made inside a building)

Before applying an insecticide, the applicator shall refer to the [Pesticide Manual](#) concerning pesticide overexposure.



Exhibit 5
COUNTY MAP

Exhibit 5:County Map: D1 Ballard

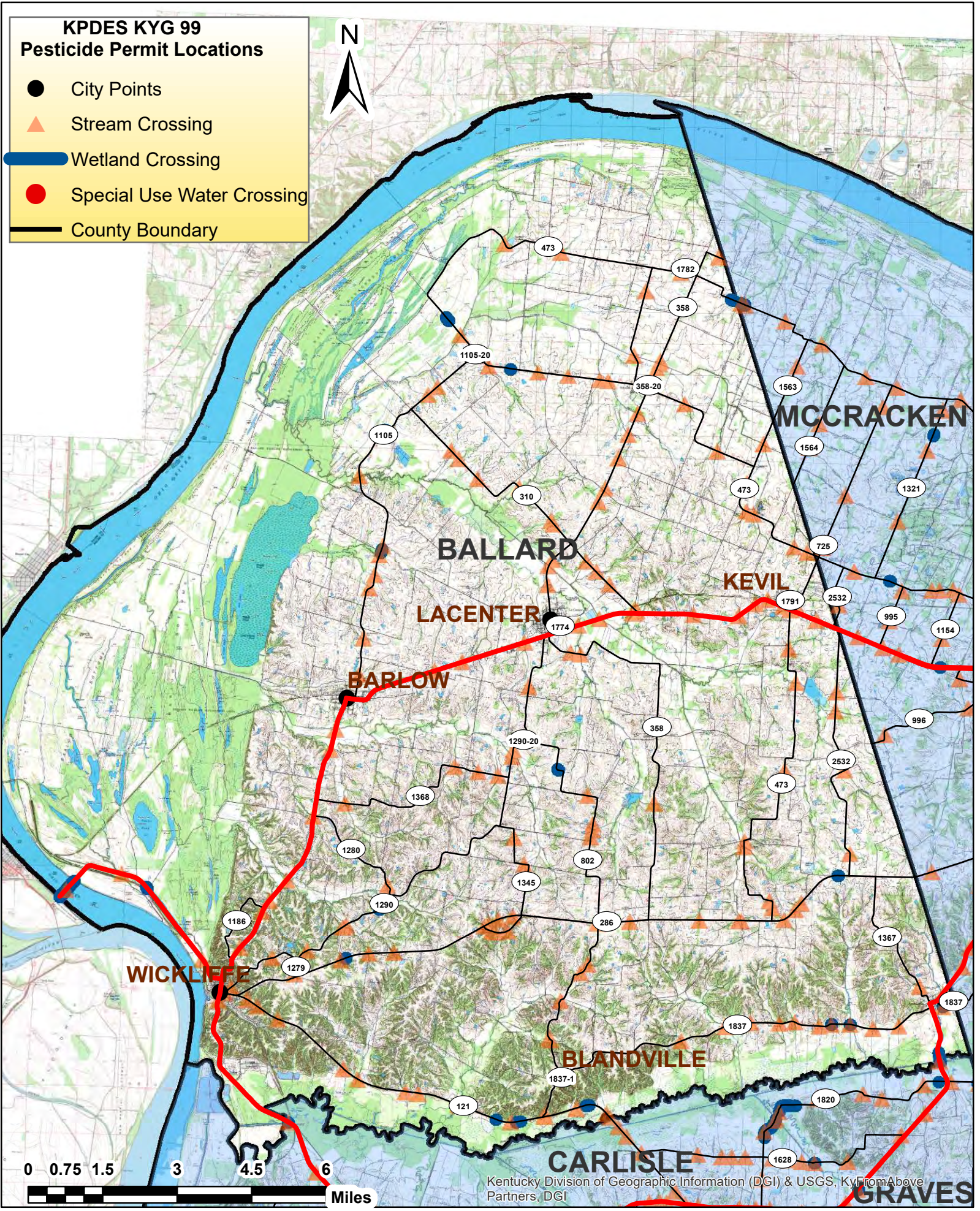


Exhibit 5:County Map: D1 Calloway

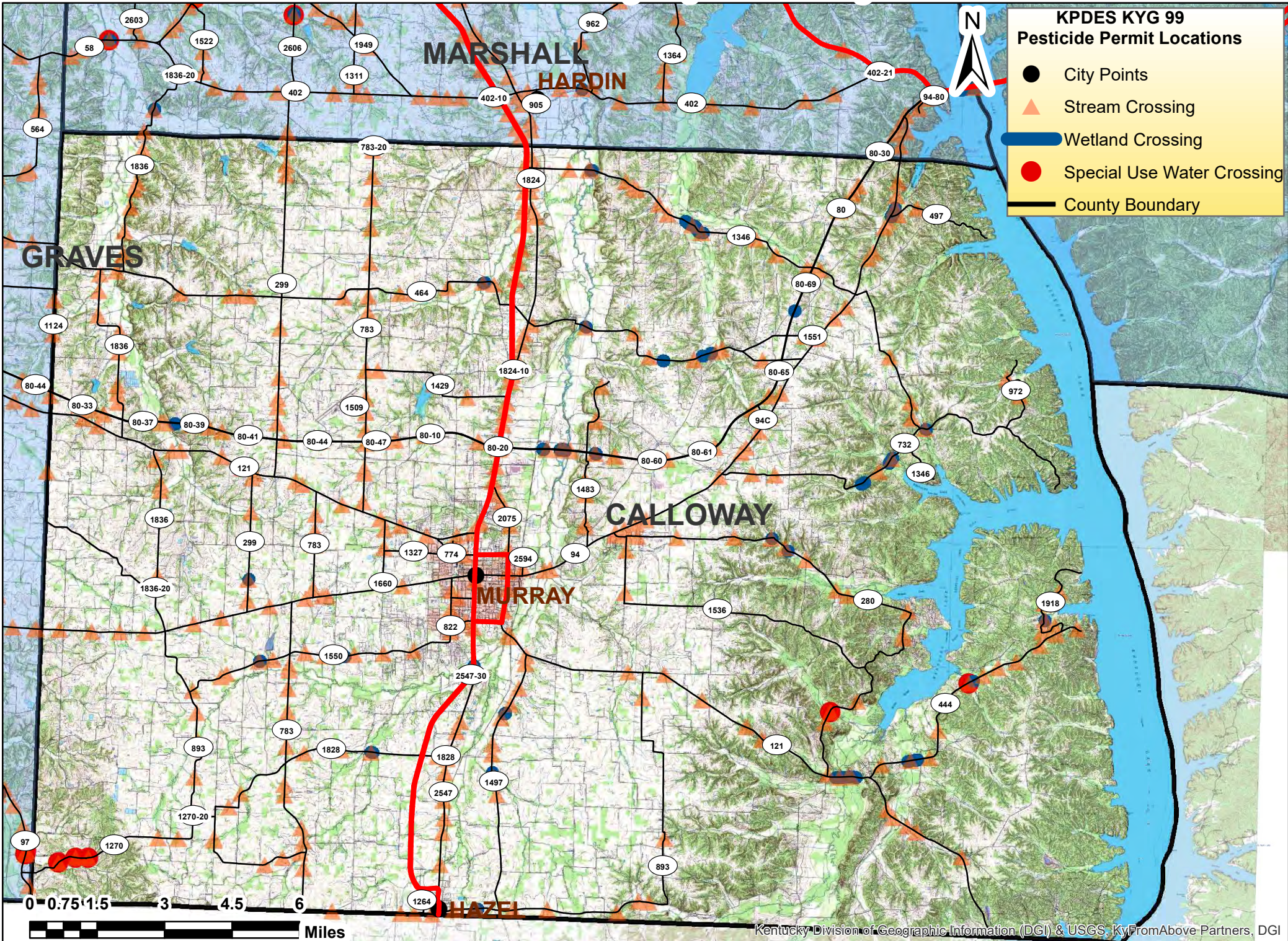


Exhibit 5:County Map: D1 Carlisle

KPDES KYG 99 Pesticide Permit Locations

- City Points
- ▲ Stream Crossing
- Wetland Crossing
- Special Use Water Crossing
- County Boundary



0 0.5 1 2 3 4 Miles

Exhibit 5:County Map: D1 Crittenden

**KPDES KYG 99
Pesticide Permit Locations**

- City Points
- ▲ Stream Crossing
- Wetland Crossing
- Special Use Water Crossing
- County Boundary

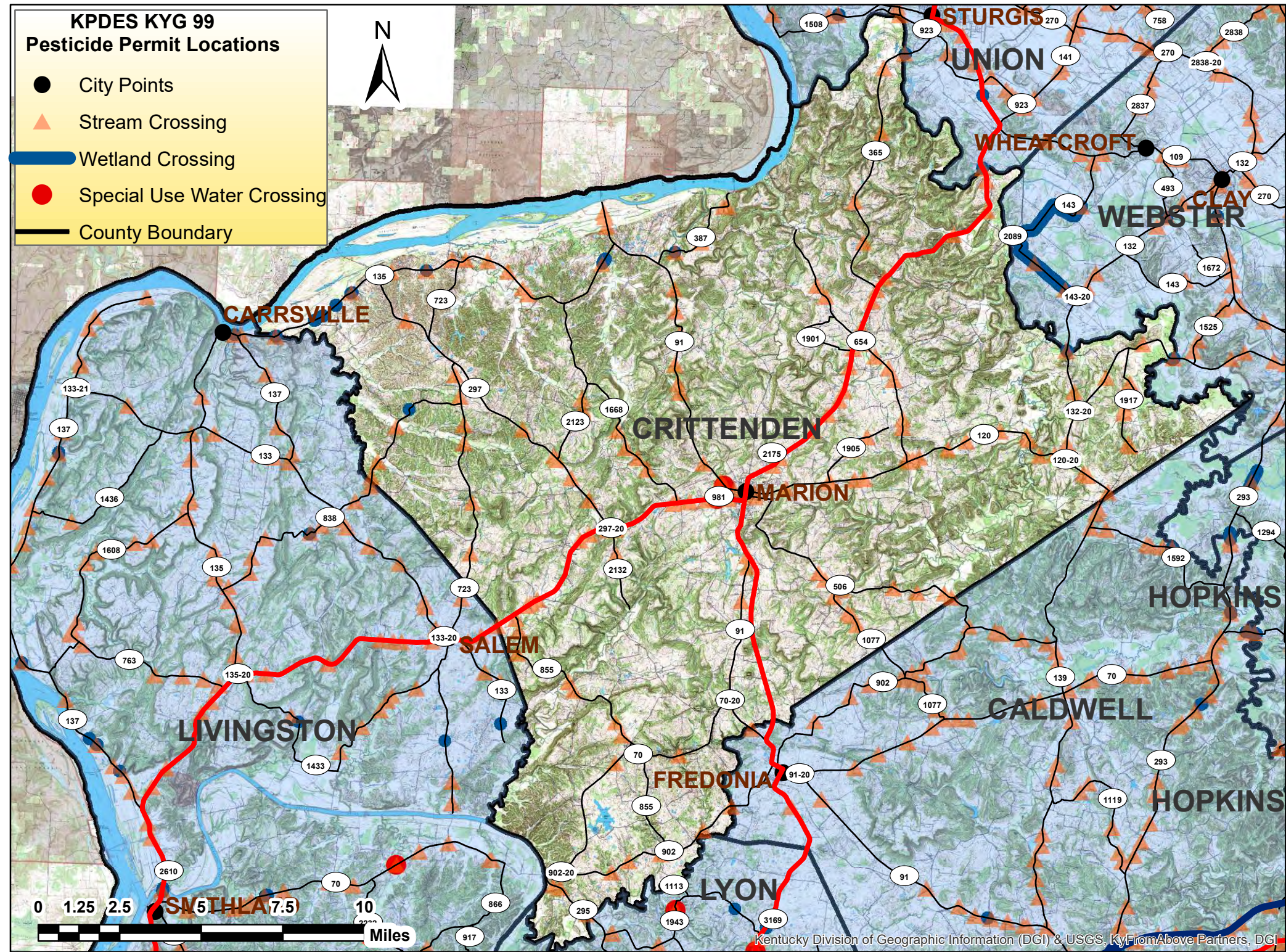


Exhibit 5:County Map: D1 Fulton

KPDES KYG 99 Pesticide Permit Locations

- City Points
- ▲ Stream Crossing
- Wetland Crossing
- Special Use Water Crossing
- County Boundary



FULTON

COLUMBUS

CARLISLE

ARLINGTON

HICKMAN

CLINTON

HICKMAN

FULTON

FULTON

0 1.25 2.5 5 7.5 10
Miles

Exhibit 5: County Map: D1 Graves

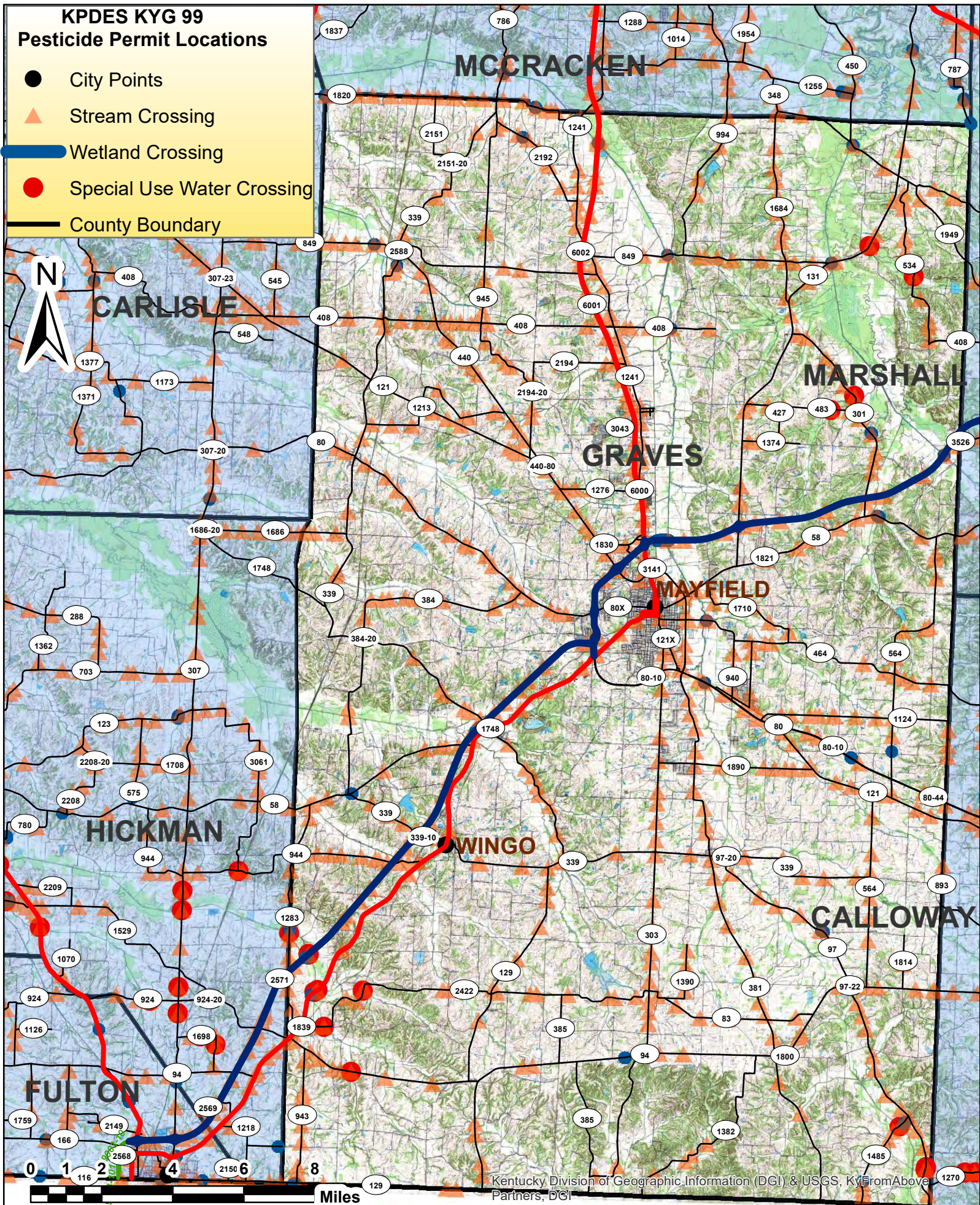


Exhibit 5: County Map: D1 Hickman

KPDES KYG 99 Pesticide Permit Locations

- City Points
- ▲ Stream Crossing
- Wetland Crossing
- Special Use Water Crossing
- County Boundary

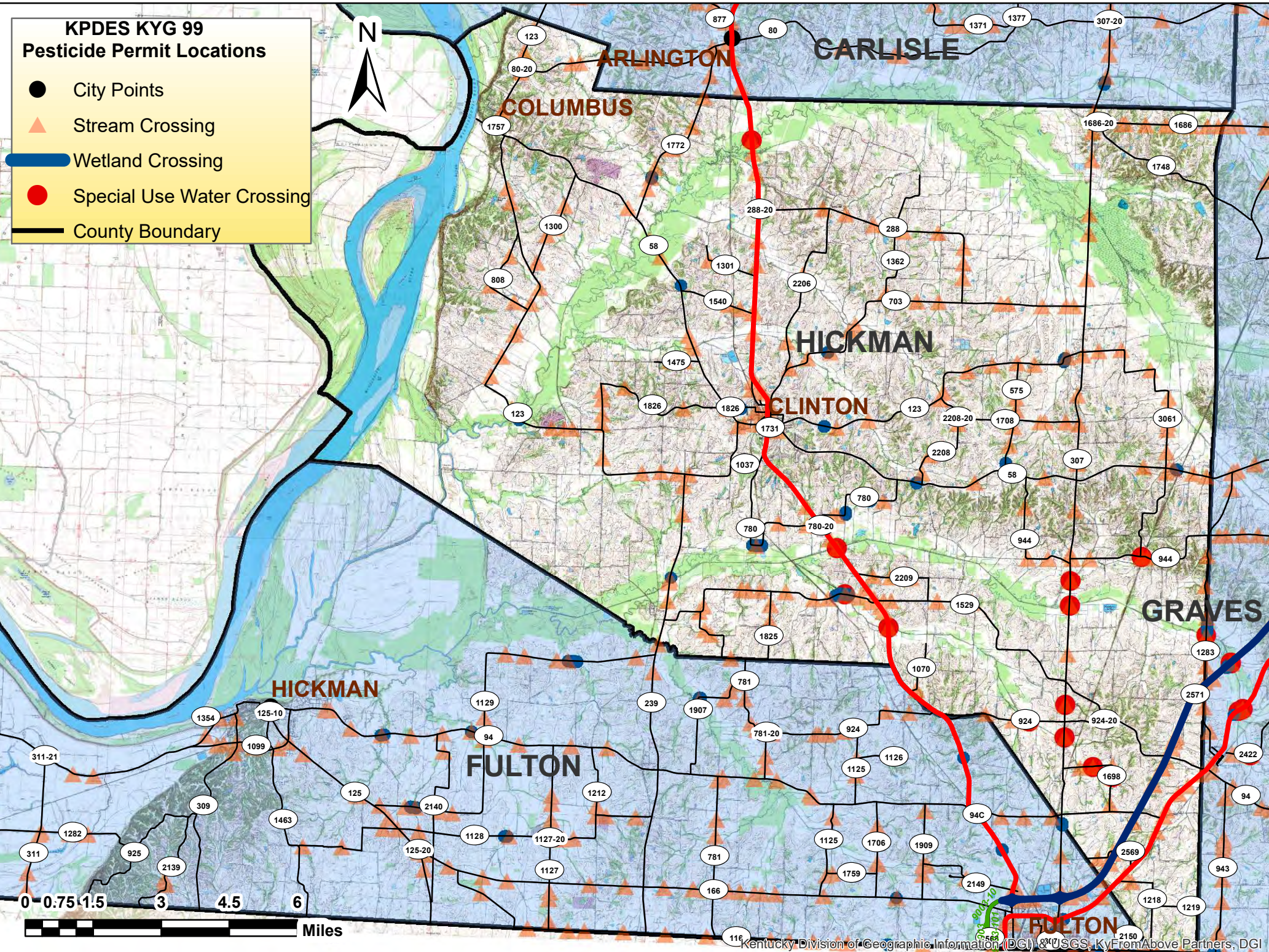


Exhibit 5: County Map: D1 Livingston

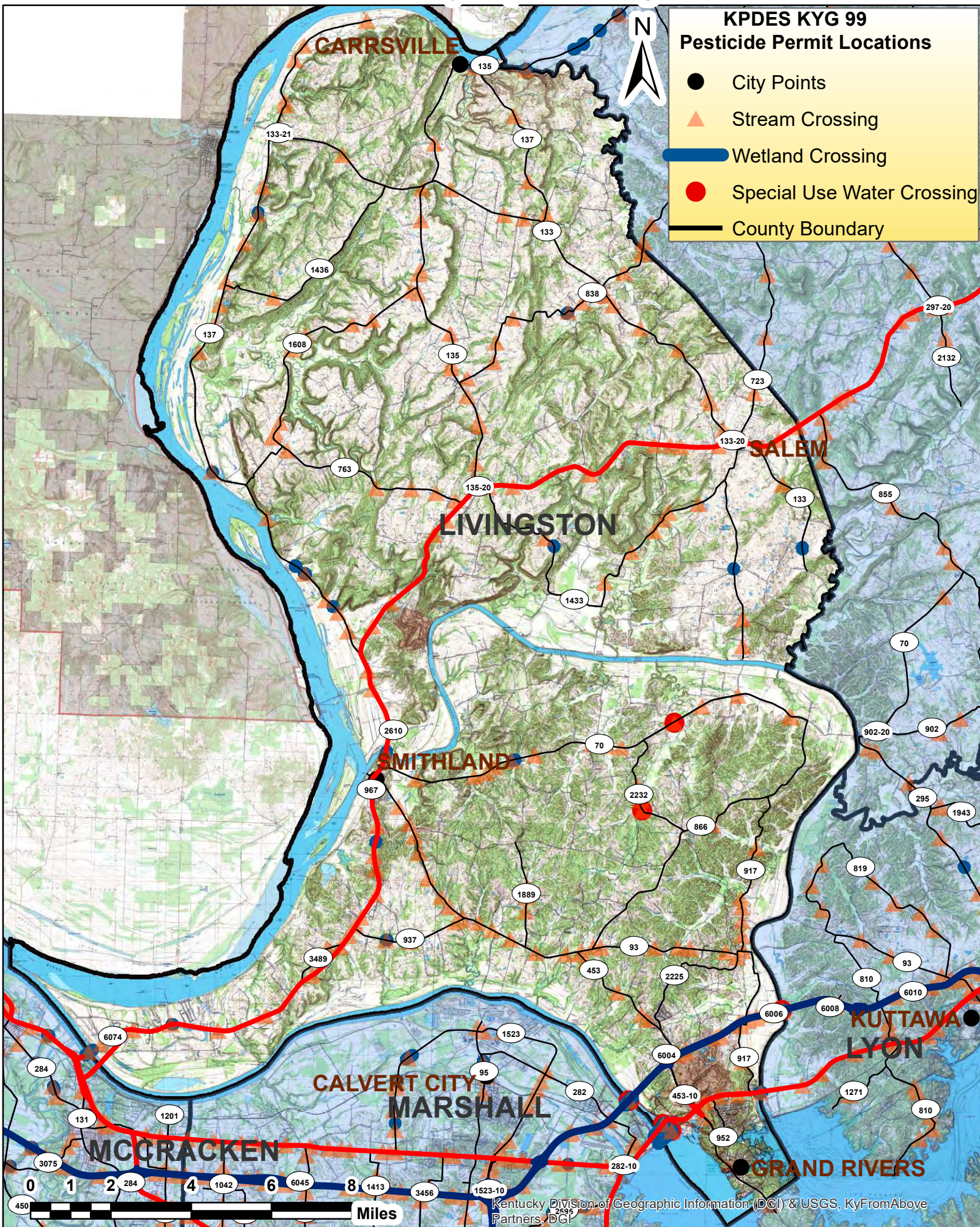


Exhibit 5:County Map: D1 Lyon

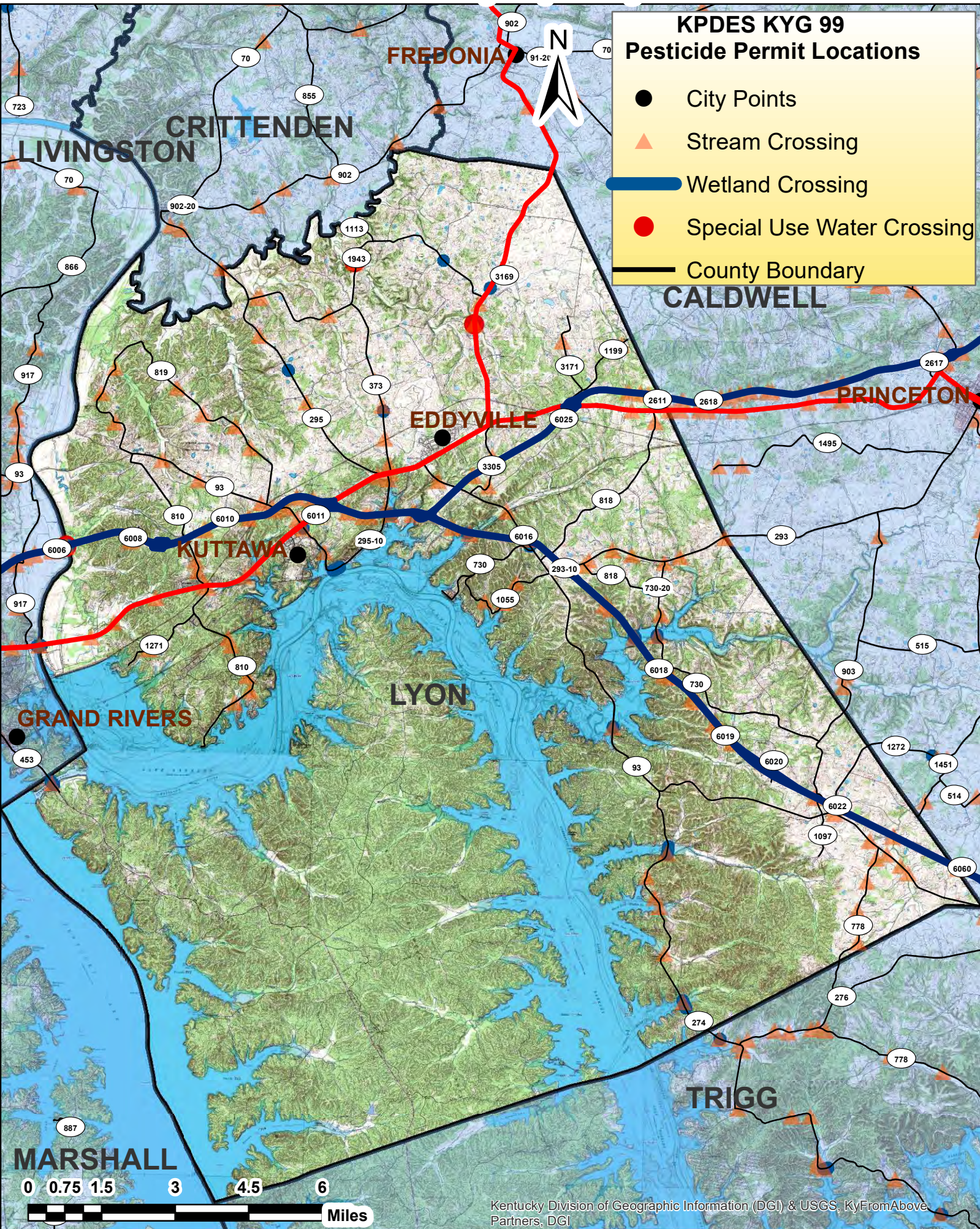


Exhibit 5: County Map: D1 Marshall

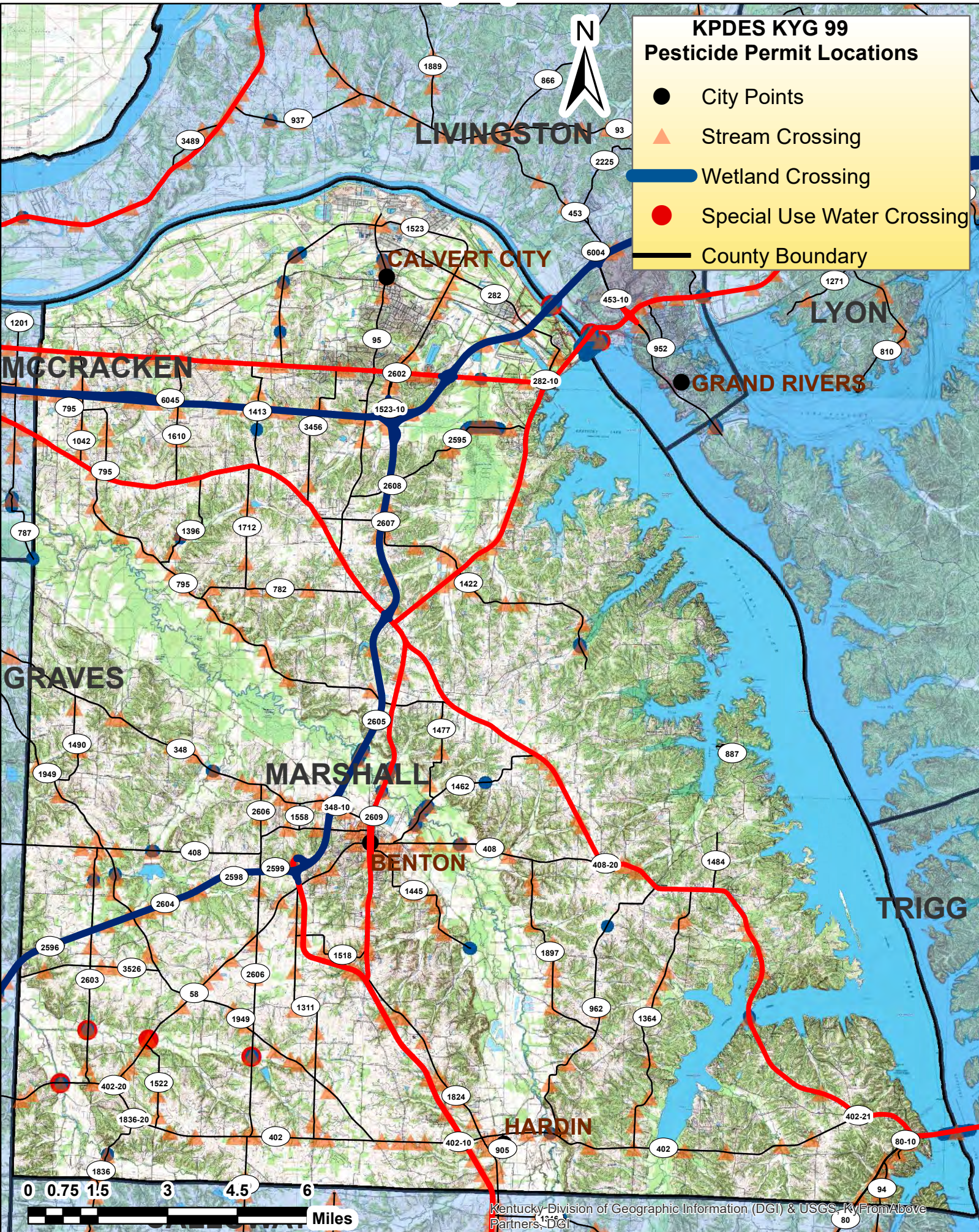


Exhibit 5:County Map: D1 Mccracken

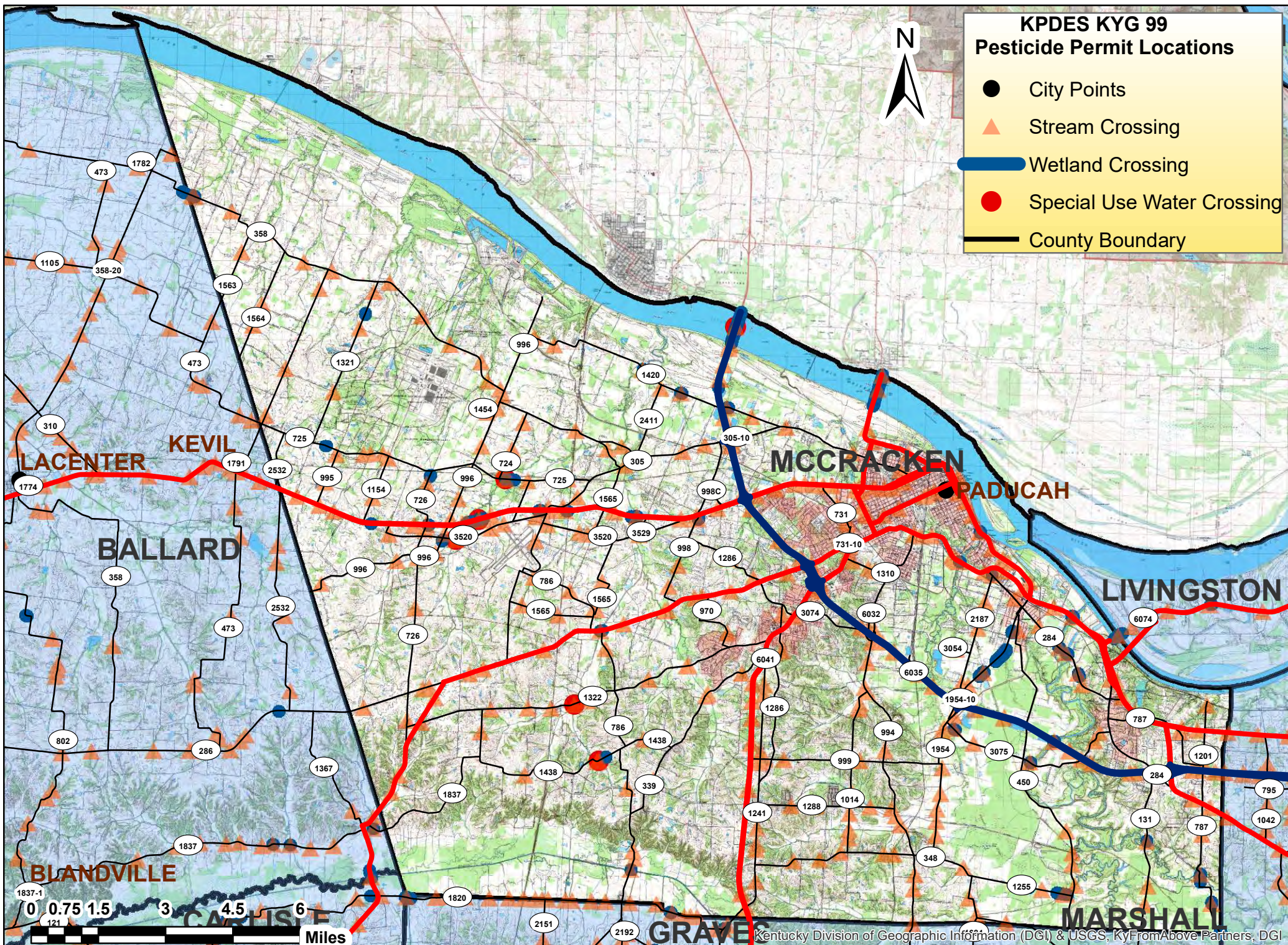


Exhibit 5:County Map: D1 Trigg

KPDES KYG 99 Pesticide Permit Locations

- City Points
- ▲ Stream Crossing
- Wetland Crossing
- Special Use Water Crossing
- County Boundary

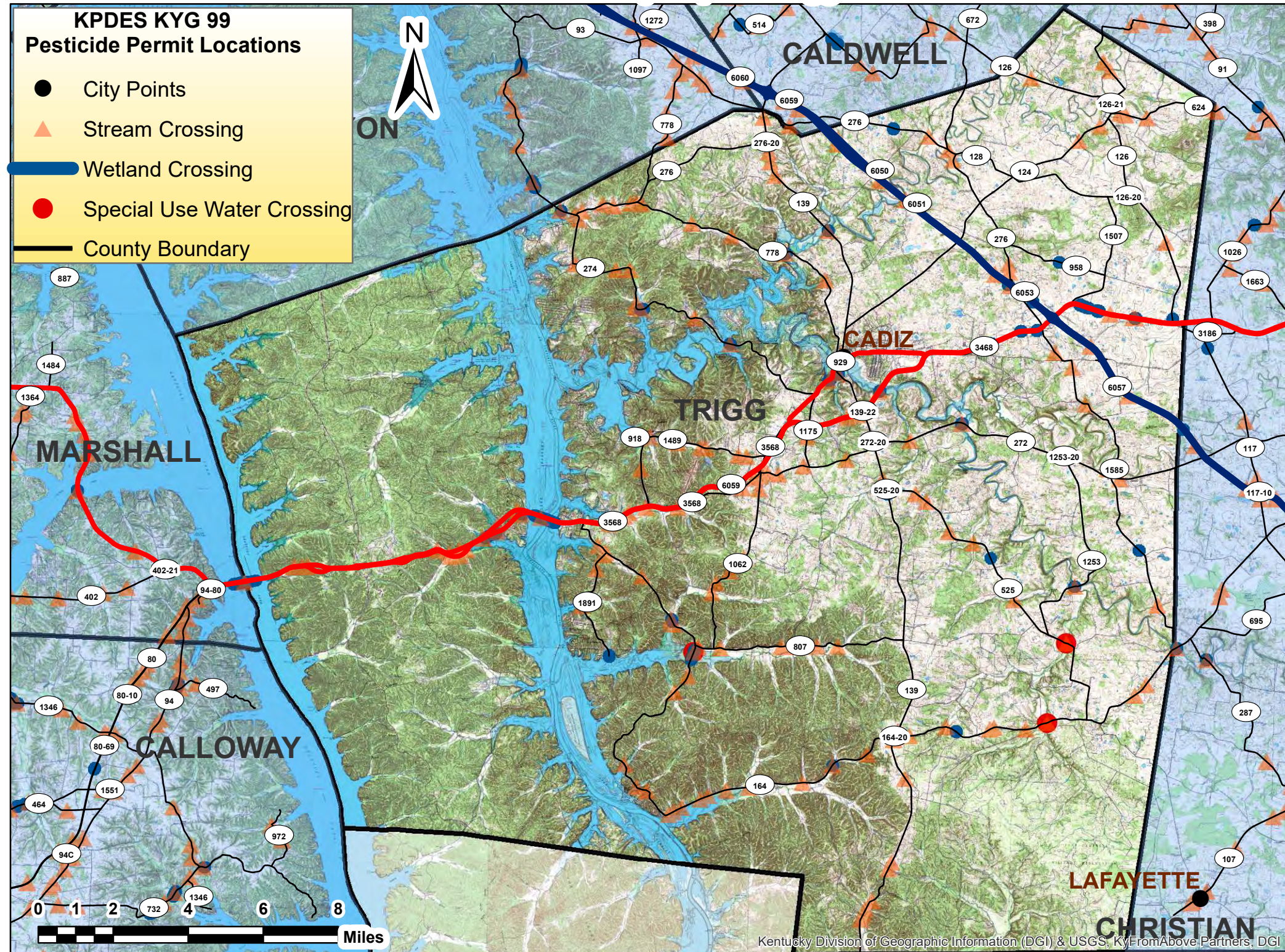
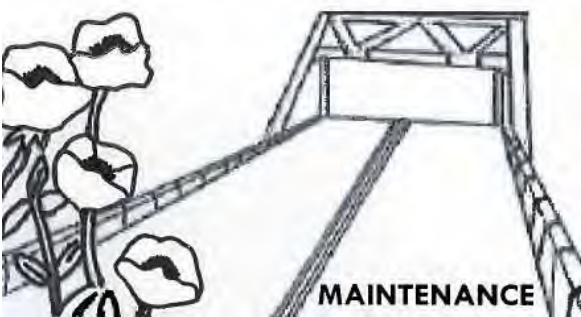


Exhibit 6
MAIN-702 VEGETATION MANAGEMENT:
PLANNING

	<i>Chapter</i> VEGETATION MANAGEMENT
	<i>Subject</i> Planning

POLICY

The roadside environment district administrator (REDA) for each district shall develop an annual planned program for the management of vegetation along the highway roadsides. This plan shall include, but not be limited to:

- Mowing
- Landscape plant maintenance
- Seeding and protection
- Fertilization
- Weed and brush control
- Planting and maintaining wildflowers
- Hazardous tree removal

A copy of the plan shall be submitted to the Division of Maintenance for review.

In order to have an effective program, the REDA shall:

- Make a survey of the vegetation of all areas
- Determine approximate time for work activities to be performed
- Determine the types and amounts of materials needed
- Determine equipment needs
- Determine the type and number of personnel required



Exhibit 7
SPILL RESPONSE PLAN

Exhibit 7 (A)

SPILL RESPONSE PLAN: PESTICIDE SPILL EMERGENCY CONTACTS LIST

District No. _____
District Name _____

FACILITY PERSONNEL

District Engineer	Office Mobile
-------------------	------------------

Operations Manager	Office Mobile
--------------------	------------------

ENVIRONMENTAL ANALYSIS

	Office Office Mobile Pager
Spill Response Contractors	Office Emergency No.

AGENCY PERSONNEL

Fire Department	Emergency	911
	Non-Emergency	
County Local Emergency Planning Committee (LEPC)	Day	
	24-hr	
KY Emergency Response Team	24-hr Emergency Spill Hotline	(800) 928-2380
National Response Center	24-hr Hotline	(800) 424-8802

5.1. KYTC SPILL RESPONSES



Do

- ✓ Treat spills of products or wastes that are flammable, toxic, reactive or corrosive as hazardous spills.
- ✓ Refer to the Material Safety Data Sheet (MSDS) for spill response procedures and personal protective equipment needs.
- ✓ Isolate the area.
- ✓ Safely **stop the release** if possible and protect streams, sewers and other waterways.
- ✓ **Report all releases** that are larger than a routine spill to DEA; call **911 or local emergency responders when warranted**.
- ✓ If the spill exceeds reportable quantities on the "List of Lists" (40 CFR 302) or enters a Water of the Commonwealth, call the Environmental Response Team **(800) 928-2380** or **(502) 564-2380** and call the National Response Center.
- ✓ **Clean up** the spilled material.
- ✓ **KyTC personnel** - Coordinate any cleanup involving removal of soil with DEA.
- ✓ **Local government** should use an environmental consultant to oversee clean up of spills involving removal of soil.
- ✓ **Manage the waste**- store absorbent in drums and conduct a waste determination if a hazardous spill is known or suspected.
- ✓ Use appropriate absorbent pads or socks for cleanup – oil only for oil or universal for non-oil.
- ✓ Review emergency response actions after an incident to highlight appropriate responses and needed improvements.
- ✓ Fill out the spill form and make reports

Don't

- ✗ Don't risk injury to yourself or co-workers.
- ✗ Don't panic, respond calmly and quickly.
- ✗ Don't stop the release if it is hazardous to do so.

Materials & Waste Management

- ▲ Store contaminated materials so they do not further contaminate the environment.
- ▲ Dispose in accordance with the waste determination.

Relevant Environmental Programs

- | | |
|--------------------|--------------|
| ○ Air Quality | ● GWPP |
| ○ 401/404/WQC | ○ Pesticides |
| ● KPDES | ● SPCC |
| ○ Facilities Pride | ● Waste Mgt |



The spill kit contains protective equipment and absorbent materials for emergency use. Locate spill kits near where materials are stored and used.

Factsheet Checklist

- ☐ Check product and waste storage areas for leaks, spills and housekeeping **WEEKLY**.
- ☐ Check hazardous waste storage areas for leaks, spills and housekeeping **WEEKLY**.
- ☐ Check spill kits **QUARTERLY** and promptly restock after use.
- ☐ Check spill response and cleanup procedures **ANNUALLY**.
- ☐ Check for the presence of copies of MSDS sheets for all products handled at the facility **ANNUALLY**.

Tips & Tricks

- ! Reportable quantities are 25 gallons or more of a petroleum product within a 24-hour period and 75 gallons or more of diesel fuel in a 24-hour period or any amount that creates a visible sheen released to a stream or lake.
- ! EPA's "List of Lists" document, which identifies reportable chemicals, can be downloaded from: <http://yosemite.epa.gov/oswer/lol.nsf/homepage>
- ! Wring oil absorbent pads into a bucket to collect spilled material for reuse or disposal.

If...Then

- If the materials that are cleaned up can be reused, place them in a suitable container and label them.

Training: 1 per Year

Season: Winter

Review All MSDS sheets as part of this training

KYTC FOG Reference M140

5.3. HAZARDOUS OR UNKNOWN WASTES OR SPILLS ON THE RIGHT-OF-WAY (ROW)



Do

- ✓ **Immediately call 911 or local emergency response team** if the waste is known or suspected to be hazardous, petroleum spill or any leaking materials due to an accident. (See **Appendix 9**).
- ✓ Then call the Environmental Response Team **(800) 928-2380** or **(502) 564-2380**.
- ✓ Report any unknown wastes found in the right of way (ROW) to the Environmental Response Team.
- ✓ Request that the emergency responders move the materials from the driving lane and place it behind a guardrail or barrier for traffic safety.
- ✓ Only trained, directly authorized KyTC personnel may investigate and handle hazardous or unknown materials on the ROW.

Don't

- ✗ Don't approach or come into contact with hazardous or unknown materials on the ROW.

If...Then

- If necessary and directed by an emergency responder, the facility may provide:
 - A crew to provide traffic control until the area is safe.
 - Sand and/or equipment.
 - If the owner or responsible party is unknown or if immediate cleanup is needed, provide the name of person who discovered the waste, route number, mile point, type of container, markings or labels, contents and source of drum or spill to the Operations Engineer, District Environmental Coordinator, Central Office Division of Operations and Division of Environmental Analysis.
- The Environmental Coordinator will contact the Division of Waste Management's Superfund Branch to investigate the incident and arrange for cleanup.
- If the District Maintenance Engineer cannot be reached, the Superintendent may call the Environmental Response Team directly.

Relevant Environmental Programs

- | | |
|--------------------|--------------|
| ○ Air Quality | ○ GWPP |
| ○ 401/404/WQC | ○ Pesticides |
| ○ KPDES | ○ SPCC |
| ○ Facilities Pride | ● Waste Mgt |



This spill requires immediate attention!

Materials & Waste Management

- ▲ If the material is confirmed non-hazardous, contact the Division of Environmental Analysis for disposal instructions.

Factsheet Checklist

- ☐ Ensure that staff are adequately trained regarding emergency procedures.

Tips & Tricks

- ! After the emergency is over, the responsible party is required to obtain traffic encroachment permits to complete the cleanup and restoration.
- ! As a last resort, the foreman may call a Waste removal company before approval has been given by the area engineer.
- ! If emergency response is required and the response unit exceeds the district's authorization level for expenditure, the Division of Purchases must be contacted as soon as possible for emergency guidance.

Training: 1 per Year **Season:** Winter

KYTC FOG Reference M140

Exhibit 7 (C)

SPILL RESPONSE PLAN: SPILL OR POLLUTION DOCUMENTATION & REPORTING

LOCATION	FACILITY NAME AND NUMBER or HIGHWAY ROUTE AND MP		DATE	TIME	AM PM	
	NEAREST CITY		COUNTY			
	DISTRICT		TELEPHONE NUMBER AT FACILITY			
Fire was involved	DATE AND TIME OF INCIDENT					
	TYPE OF MATERIAL DISCHARGED, IF A PESTICIDE, LIST THE TANK MIX					
	ESTIMATED QUANTITY OF DISCHARGED MATERIAL					
	SOURCE OF DISCHARGE					
	EXTENT OF THE SPILL: CHECK ALL THAT APPLY ☐ IT OCCURRED ONLY ON PAVEMENT OR CONCRETE (AN IMPERVIOUS SURFACE) ☐ IT OCCURRED ON OR IMPACTED SOIL OR GRAVEL, ☐ IT IMPACTED A STREAM OR LAKE ☐ IT DISCHARGED INTO A CITY SEWER ☐ IT IS BEYOND KYTC PROPERTY ☐ IT IMPACTED A STORM SEWER OR DRAINAGE DITCH ☐ THERE WAS A FIRE AS PART OF THIS SPILL Make a sketch of the site and approximate limits of the spill on the back of this form.					
	CAUSE OF THE DISCHARGE					
	ANY DAMAGE OR INJURY					
	ACTIONS USED TO STOP OR REMOVE AND MITIGATE EFFECTS OF THE DISCHARGE					
	EVACUATION NECESSARY (EXPLAIN)					
	☐ SUPERVISOR NOTIFIED	DATE TIME	☐ DIST. BRANCH MGR NOTIFIED	DATE TIME	☐ CDE NOTIFIED	DATE TIME
	☐ ENVIRON. COORDINATOR NOTIFIED	DATE TIME	NAME OF INDIVIDUAL TAKING REPORT			DATE TIME
Local Fire Dept. Notified	NAME OF FIRE DEPT.		NAME OF INDIVIDUAL TAKING REPORT		Rept.#	Date Time
GOVT. AGENCIES NOTIFIED (when applicable)	NATIONAL RESPONSE CENTER (1-800-424-8802)		NAME OF INDIVIDUAL TAKING REPORT		Rept #	Date Time
	STATE ERT (1-800-928-2380)		NAME OF INDIVIDUAL TAKING REPORT		Rept #	Date Time
	☐ City ☐ COUNTY ☐ SEWER AUTHORITY		NAME OF INDIVIDUAL TAKING REPORT		Rept #	Date Time
Incident Description, Action Taken, General Comments						
Prepared by			TITLE	DATE	PHONE	

Note: Follow the guidance from the material(s) MSD Sheet for appropriate action, personal protection and handling of spill materials. Copy this report to: KYTC Division of Environmental Analysis.

Revised: 11/21/2008

Exhibit 8
PESTICIDE SPILL RESPONSE TRAINING

EXHIBIT ..
PESTICIDE SPILL RESPONSE

EDWARD MCCRACKEN

KYTC

DIV. ENVIRONMENTAL ANALYSIS

PESTICIDE SPILLS

- **SMALL SPILLS**
- **MEDIUM SPILLS**
- **LARGE SPILLS**

CONTINGENCY SPILL PLAN

- **PROBABLE SPILLS**
- **PRIORITIZED ACTIONS**
- **PREPARATION TO BE READY**
 - **SAFETY ISSUES**
- **REGULATORY COMPLIANCE**
 - **COST EFFECTIVENESS**

PROBABLE SPILLS

- **TRUCK ACCIDENTS**
- **POLY-TANK FAILURES**
 - **HUMAN ERRORS**
 - **OVER FILLING**
- **INTENTIONAL DUMPING**

PRIORITIZED ACTIONS

- **DISCOVERY AND NOTIFICATION**
- **IMMEDIATE RESPONSE ACTIONS**
- **SECONDARY ACTIONS**
- **CLEANUP AND DECON ACTIONS**
- **CONTAINERS AND DISPOSAL**
- **DOCUMENTATION AND COSTS**

PREPARATIONS TO BE READY

- **TRAINING FOR HANDLERS/DRIVERS**
 - **PERSONAL PROTECTIVE GEAR**
 - **KNOW YOUR PRODUCT: MSDS**
 - **WRITTEN ACTIONS PAGE**
 - **KNOW YOUR SPILL KIT**
 - **KNOW WHAT NOT TO DO**
 - **COMMUNICATION MEANS**

SAFETY ISSUES

- **TRAINED RESPONDERS ONLY**
- **KNOW YOUR POTENTIAL HAZARDS**
 - **BE CALM AND BE SAFE**
- **FIRST DON SAFETY APPAREL**
- **ALWAYS USE BUDDY SYSTEM**
- **ALWAYS APPROACH UP-WIND**
- **DUFFING AND HYGIENE WINDUP**

REGULATORY COMPLIANCE

- **FIFRA IS THE MAIN REGULATION**
- **OSHA 29CFR1910.120 MAY ENTER**
- **KY REGULATIONS MAY CONTROL**
- **EPA 40CFR260's FOR HW SPILLS**
- **PESTICIDE COMPONENTS ARE OILS**
- **OTHER LOCAL, STATE, FED. REGS.**
- **WILLFUL VIOLATIONS ARE SERIOUS**

COST EFFECTIVENESS

- **IMPORTANT BUT NOT #1**
- **COST CONSIDERED AT ALL STEPS**
- **PREPLANNING SAVES BIG BUCKS**
- **CHOOSE EFFECTIVE SPILL KITS**
- **SAFETY SAVES LIVES & MONEY**
 - **COMPLIANCE AVOIDS FINES**

BASIC SPILL RESPONSE STEPS

- **PROPER SPILL NOTIFICATION**
- **CORDON SPILL: CONES & TAPE**
- **IF RESPONSE, DON PPE & SAFETY**
- **APPROACH UP-WIND: STOP LEAKS**
- **APPLY SPILL KIT ABSORBENTS**
- **USE SOILS TO HELP DAM SPILL**
- **CALL FOR BACKUP CLEANUP CO.**

MORE CLEANUP STEPS

- PROTECT RUNOFF RECEPTACLES**
- SPENT SORBENTS IN DISP. BAGS**
- MEDIUM/LARGE SPILL AMELIORATE**
 - LEAVE SITE CLEAN & SAFE**
- DOCUMENT THOROUGHLY: RECORD**
- MEDICALLY EXAMINE EXPOSURES**





RIGHT TO KNOW
INFORMATION
STATION

MATERIAL SAFETY
DATA SHEETS
FOR
HAZARDOUS MATERIALS





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Exhibit 9
PESTICIDES REPORTABLE QUANTITIES

COMMON NAME	ACTIVE INGREDIENT	REPORTBLE QUANTITY	REPORTABLE PRODUCT AMOUNT
2, 4-D AMINE	DI-METHYLAMINE	100 POUNDS	26 GALLONS
2, 4-D IVM DRY	DI-METHYLAMINE SALT	100 POUNDS	103 POUNDS
POLARIS AC COMPLETE	IMAZAPYR	NONE	
BASIL OIL PREMIX	TRICLOPYR ESTER, IMAZAPYR		CALL DEA
DORMANT STEM PREMIX	2, 4-D ESTER; 2-4 DP ESTER; DICAMBA; T	100 POUNDS	163 GALLONS
ENDURANCE	PRODIAME	NONE	
ESCORT	METSULFURON	NONE	
FUSION	FLUAZIFOP & FENOXAPROP	100 POUNDS	1,300 POUNDS
GARLON 3A	TRICLOPYR (AMINE)	5,000 POUNDS	
GARLON 4 ULTRA	TRICLOPYR (ESTER)	NONE	
KRENITE S	FOSAMINE SALT	NONE	
MILESTONE	AMINOPYRALID	NONE	NONE
MSMA	METHANEARSONATE	1 POUND	4.5 POUNDS
OUTRIDER	SULFOSULFURON	NONE	
OVERDRIVE	SALTS OF DIFLUFENZOPYR & DICAMBA	1,000 POUNDS	2,000 POUNDS
PAYLOAD	FLUMIOXAZIN	NONE	
PENDULUM (WDG)	PENDIMETHALIN	NONE	
PLATEAU	PYIDINECARBOXYLIC	NONE	
ROUNDUP PRO	GLYPHOSATE SALT	NONE	
SAHARA	IMAZAPYR & DIURON	100 POUNDS	161 POUNDS
STRONGHOLD	AMMONIUM SALT OF IMAZETHAPYR, IMAZA	NONE	
TELAR DF	CHLORSULFURON	NONE	
TRANSLINE	CLOPYRALID	NONE	
OUST EXTRA	SULFOMETURON & METSULFURON	NONE	
PERSPECTIVE	AMNOCYCROPYRACHLOR & CHLORSULFURON	NONE	

COMMON NAME	ACTIVE INGREDIENT	REPORTBLE QUANTITY	REPORTABLE PRODUCT AMOUNT
STREAMLINE	AMNOCYCROPYRACHLOR & METSULFORON	NONE	
VIEWPOINT	AMNOCYCROPYRACHLOR & METSULFORON & IMAZAPHYR	NONE	
OPENSIGHT	AMINOPYRAUD & METSULFURON	NONE	

Exhibit 10

ANNUAL REPORTS AND OTHER RECORD KEEPING

Visual Inspections

When possible, visual inspections are routinely conducted as part of KYTC pesticide applications for both immediate and observable water quality related adverse incidents. Because most herbicides kill the target vegetation slowly over a period of days and weeks, there may be no immediate water quality effects short of an actual spill, and adverse incidents resulting from oxygen depletion caused by decaying vegetation may not be evident for the same lengthy period. Inspections may not always be possible due to extremely dense vegetative cover that obscures the treatment area. Post-application inspections are routinely conducted to determine effectiveness of pesticide applications and are more likely to detect water quality adverse incidents.

Corrective Actions

KYTC will take specific actions to correct the situation and to prevent reoccurrence if any of the following situations occur:

A pesticide application causes the water in question to not meet technology based effluent limitations.

A pesticide application causes the water in question to deviate from a narrative water quality standard.

A pesticide application causes a water quality related adverse incident.

KYTC will take corrective action before the next pesticide application or as soon as possible. The Department shall document any event and all pertinent information that triggers a corrective action within 30 days of the event and shall maintain a copy of the corrective actions at the district office.

Record Keeping

KYTC documents all pesticide applications on form TC 71-108 form, [Pesticide Field Report](#) and maintains these records for a period of three years at the district office in accordance with [KRS 217B.150](#).

Activity Summary

The Department shall prepare an annual summary of pesticide application activity for each calendar year including the applicator's name, common name of the pesticide used, EPA registration number, application method and quantity applied. The summary shall also include a brief outline of any water quality related adverse incidents and corrective actions taken. These records shall also be maintained at the district office.

Exhibit 11
CORRECTIVE ACTION LOG

[illegible]

Exhibit 12
PDMP AMENDMENT LOG

[illegible]