

Agriculture Water Quality Planning

Amanda Gumbert

Conservation District Employee Training
January 2012

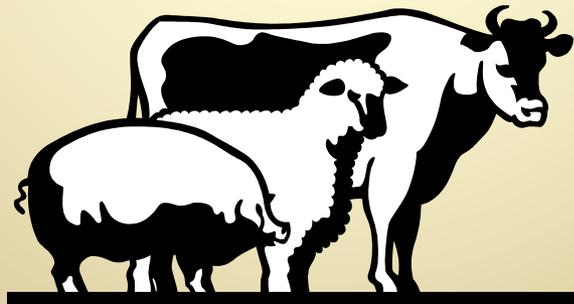
KY Agriculture Water Quality Act

- 10+ acres in agriculture or forestry must develop a water quality plan
- Plan includes Best Management Practices (BMPs) to protect water quality
- Established the KY Ag Water Quality Authority
 - Multi-agency committee
 - Developed the KY Ag Water Quality State Plan
 - Tasked with reviewing BMPs, implementing the Act

So, who needs a plan?

- Anyone farming or raising trees on 10+ acres
- Anyone applying for cost share
 - Kentucky Soil Erosion and Water Quality Cost Share Program (State cost share)
 - NRCS Environmental Quality Incentives Program (EQIP)
 - GOAP County Ag Investment Program (CAIP)

What if I don't have a plan?



Planning Tool

www.ca.uky.edu/awqa



Kentucky Agricultural Water Quality Plan

Best Management Practices
For Your Farm

August 12, 2009

- ▶ Home
- ▶ How to Enter Information
- ▶ Begin Entering Information
- ▶ Helpful Hints
- ▶ View All BMPs
- ▶ More Resources
- ▶ State Ag. Water Quality Workbook
- ▶ Background Information
- ▶ Copyright & Warranty Information

Water Quality Plan Home Page



This web site contains an on-line tool to be used by landowners to assess their operation and identify best management practices to be included in their individual plan. After identifying the best management practices, landowners/land users implement these practices on their land. Assistance to implement the plan can be obtained by contacting your local **Conservation District Office** or your local **Cooperative Extension Service Office**.



Ag Water Quality Planning Tool

University of Kentucky Cooperative Extension

- Home
- Planning Tool
 - How to Use Planning Tool
 - Login to Planning Tool
 - Helpful Hints
 - View All BMPs
- More Resources
- State Ag. Water Quality Plan
- Complete Water Quality Workbook
- Producer's Short Workbook
- Ag Water Quality Q&A
- Background Information
- Copyright & Warranty Information

Best Management Practices for Your Farm July 11, 2011

This web site contains an on-line tool to be used by landowners to assess their operation and identify best management practices to be included in their individual plan. After identifying the best management practices, landowners/land users implement these practices on their land. Assistance to implement the plan can be obtained by contacting your local Conservation District Office or your local Cooperative Extension Service Office.



Small Kentucky farmstead

Photo Credits: Matt Barton and Steve Patton, Ag Communications; Steve Higgins, Biosystems and Ag Engineering.

- Background Information
- Planning Tool
 - How to Use Planning Tool
 - Start Here
 - Helpful Hints
 - View All BMPs
- Calculators & Tools
- Plans & Drawings
- More Resources
 - State Ag. Water Quality Plan
 - Producer's Short Workbook
 - Copyright & Warranty Information

Please enter the following information:

Please be as accurate as possible. **IMPORTANT:** An email address is required to provide lost or forgotten password assistance.

Farm Name: County Location of Farm:

(If Farm does not have a name, enter last name of owner.)

Owner Name: Operator Name:

Owner Address: City: State: Zip:

Owner Email:

Username:

Password:

Check Questions for AWQPT (answers submitted to determine need for AWQP)

| | |
|---|---|
| Do you own 10 or more acres in Kentucky? | <input type="radio"/> Y <input type="radio"/> N |
| Is your land being used for farming or timber production? | <input type="radio"/> Y <input type="radio"/> N |
| Do you have a conservation plan, compliance plan, or a forest stewardship plan for your land? | <input type="radio"/> Y <input type="radio"/> N |
| Do you harvest and/or raise trees for timber on your land? | <input type="radio"/> Y <input type="radio"/> N |
| Do you use and/or store pesticides and/or fertilizers on your land? | <input type="radio"/> Y <input type="radio"/> N |
| Do you live on your land or do other people live on your land? | <input type="radio"/> Y <input type="radio"/> N |
| Do you grow agriculture or silviculture crops on your property? | <input type="radio"/> Y <input type="radio"/> N |
| Do you have livestock and/or poultry on your property? | <input type="radio"/> Y <input type="radio"/> N |
| Do you have streams, wetlands, or other waters on your land? | <input type="radio"/> Y <input type="radio"/> N |

Create Account

<http://www.bae.uky.edu/awqpt/update.asp>
Google

File Edit View Favorites Tools Help
 x Contribute Edit Post to Blog
x Convert Select

Favorites
 Edible Louisville Magazi...
KNDOP regs
AWQPT - All BMPs
BOB LIPPERT'S FREQUE...
Intellicast - Lexington ...
Virginia Tech weed id
Ag Pubs

AWQPT - Farm Information Update Form
Page Safety Tools

Agriculture Water Quality Planning Tool

Current plan information for Farm ID: 1157
 Date Last Updated: 11/29/2011 1:22:28 PM

| | |
|-------------------------------------|--|
| Farm Name: Practice123 | County Location of Farm: Nicholas |
| Owner Name: Practice | Operator Name (if different from Owner): |
| Practice | |
| Owner Address: 123 Practice Lane | City: Carlisle |
| 40311 | State: KY Zip: |
| Owner Email: amanda.gumbert@uky.edu | |

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| | |
|---|--|
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| Do you have streams, wetlands, or other waters on your land? | <input checked="" type="radio"/> Y <input type="radio"/> N |

AWQP - Crops

| | |
|--|--|
| 1) Do you ever produce row crops on hilly or steep sloping land (greater than 6% slope)? | <input checked="" type="radio"/> Y <input type="radio"/> N |
|--|--|

Implemented BMPs:

| | | |
|-------|--------------------------|---|
| BMP#1 | <input type="checkbox"/> | Conservation Cropping Sequence |
| BMP#2 | <input type="checkbox"/> | Conservation Cover |
| BMP#3 | <input type="checkbox"/> | Conservation Tillage / Crop Residue Use |

- BMP#4 Limiting Access to Streams by Fencing with Alternative Water Systems, Limited Access Points, or Stream Crossings
- BMP#14 Feeding and Heavy Use Area Management

AWQP - Livestock

1) Are there any streams, rivers, wetlands, or other water bodies in or adjacent any of your pastures? Y N

Implemented BMPs:

- BMP#1 Planned Grazing System
- BMP#2 Proper Grazing Use
- BMP#3 Riparian Area Protection
- BMP#4 Limiting Access to Streams by Fencing with Alternative Water Systems or Limited Access Points

2) Do you overgraze your pastures? Y N

Implemented BMPs:

- BMP#1 Planned Grazing System
- BMP#2 Proper Grazing Use
- BMP#14 Feeding and Heavy Use Area Management

3) Do you have livestock on confined/paved feeding areas? Y N

Implemented BMPs:

- BMP#2 Proper Grazing Use
- BMP#5 Manure Management System
- BMP#6 Manure Storage Pond
- BMP#7 Manure Storage Structure (Holding Tank)
- BMP#8 Manure Treatment Lagoon
- BMP#9 Sediment or Solids Separation Basin
- BMP#10 Manure Storage Structure (Stack Pad)
- BMP#13 Filter Strip
- BMP#14 Feeding and Heavy Use Area Management

4) Do you allow livestock to have full access to streams, rivers, wetlands, or other water bodies? Y N

| | |
|---|--|
| farm? | |
| Implemented BMPs: | |
| BMP#8 <input type="checkbox"/> Mixing, Loading and Handling | |
| 9) Do you store unused or leftover pesticides and/or fertilizers on your farm at any time? | <input checked="" type="radio"/> Y <input type="radio"/> N |
| Implemented BMPs: | |
| BMP#9 <input type="checkbox"/> Excess Pesticide Disposal | |
| 10) Do you ever have to dispose of empty pesticide and/or fertilizer containers? | <input checked="" type="radio"/> Y <input type="radio"/> N |
| Implemented BMPs: | |
| BMP#10 <input type="checkbox"/> Pesticide and Fertilizer Container Disposal | |
| AWQP - Streams & Other Water Bodies | |
| 1) Do you have to cross a stream with farm equipment or vehicles? | <input checked="" type="radio"/> Y <input type="radio"/> N |
| Implemented BMPs: | |
| BMP#1 <input type="checkbox"/> Stream Crossing Protection | |
| 2) Are there sand or gravel deposits in any stream on your farm that you have to or want to remove? | <input type="radio"/> Y <input checked="" type="radio"/> N |
| Implemented BMPs: | |
| BMP#2 <input type="checkbox"/> Sand and Gravel Removal | |
| 3) Are any of your stream banks scouring, caving in, or sloughing off? | <input checked="" type="radio"/> Y <input type="radio"/> N |
| Implemented BMPs: | |
| BMP#3 <input type="checkbox"/> Streambank and Shoreline Protection | |
| 4) Do any of your streams have log jams or sediment blockage that you want to remove? | <input checked="" type="radio"/> Y <input type="radio"/> N |
| Implemented BMPs: | |
| BMP#4 <input type="checkbox"/> Proper Stream Drainage Maintenance | |
| 5) Do you plan any of the above activities on areas considered to be wetlands? | <input type="radio"/> Y <input checked="" type="radio"/> N |
| Implemented BMPs: | |
| BMP#5 <input type="checkbox"/> Contact Corps of Engineers or NRCS | |

Agriculture Water Quality Plan

Practice123
November 28, 2011

Farm ID: 1157
Farm Name: Practice123
Farm Owner: Practice
Address: 123 Practice Lane, Carlisle, KY 40311
Farm Operator: Practice



Why do you need an Agriculture Water Quality Plan?

Agricultural pollutants, such as sediment, nutrients, and pathogens, have a large impact on surface and ground water resources. These pollutants originate from many different sources throughout the farm. Sediment can enter streams when grazing animals have access to streams or when vegetation is removed from pastures, cropland, or construction areas. Sediment accumulation in streams can dramatically decrease aquatic habitat and general water quality. Manure and fertilizers contain high levels of nitrogen and phosphorus, two common nutrients, and when they make their way into streams, eutrophication can occur. Pathogens found in manure or septic systems also decrease water quality when introduced to water resources by allowing livestock in streams, improperly disposing of manure, or poorly maintaining septic systems. All of these pollutants can be controlled by agricultural producers through the implementation of best management practices (BMPs).

It is our job, as farmers, to conduct our operations in a manner that avoids and eliminates agricultural pollution that contaminates local water resources. This Agriculture water Quality Plan (AWQP) is designed to show what BMPs this operation is currently implementing and to recommend other practices that could apply to this operation and improve water quality. Many of the recommended BMPs found in this document represent the minimum measures needed to satisfy environmental regulations. Guidance on the selection and implementation of recommended BMPs can be found in documents and reference material developed by the University of Kentucky College of Agriculture.

The goal of this AWQP is to protect ground and surface water; however, it encourages agriculture and silviculture practices that produce other benefits for landowners and producers, such as:

- Improved soil health, which can enhance profits and longevity for the agriculture operation;
- Nutrient retention, decreasing the amount of fertilizers that must be purchased;
- Improved drinking water quality;
- Enhanced flood control;
- Restoration and enhancement of wildlife habitat; and
- An overall improvement to the quality of life for those living and working on the farm.

An AWQP is required by law for all landowners and land users with ten or more acres under agricultural or woodland production in Kentucky. The goal of an AWQP is to protect surface and groundwater resources from pollution that results from agricultural and silvicultural activities. The plan consists of BMPs from six different areas:

http://www.bae.uky.edu/awqpt/plan_doc.asp
Google

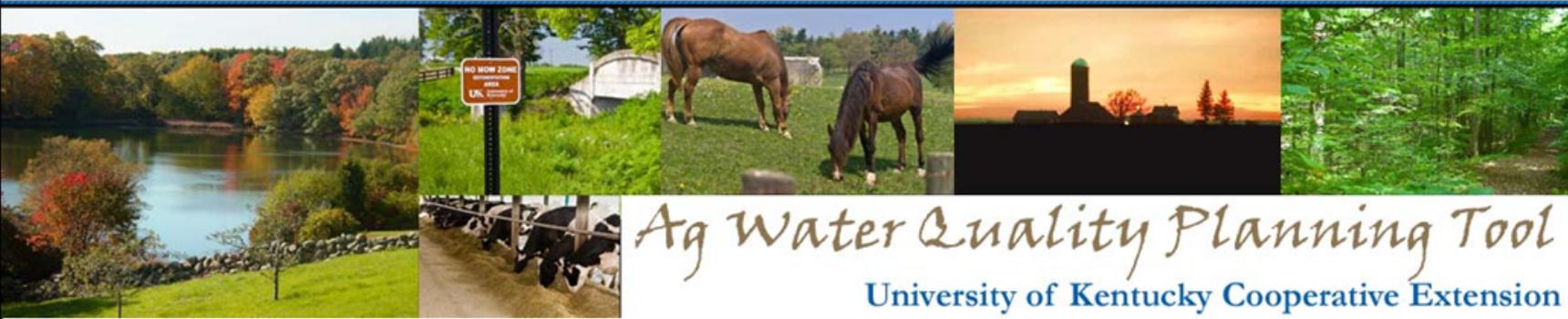
File Edit View Favorites Tools Help
 x Contribute Edit Post to Blog
x Convert Select

☆ Favorites
 ★ Edible Louisville Magazi...
KNDOP regs
AWQPT - All BMPs
★ BOB LIPPERT'S FREQUE...
Intellicast - Lexington ...
Virginia Tech weed id
Ag Pubs

Agriculture Water Qu...
Ky. Agriculture Water Q...
Page Safety Tools ?

Comprehensive BMP List

| IMPLEMENTED | RECOMMENDED |
|--|---|
| | CROPS |
| BMP#2: Conservation Cover | BMP#1: Conservation Cropping Sequence |
| BMP#3: Conservation Tillage / Crop Residue Use | |
| | BMP#4: Contour Farming |
| BMP#5: Nutrient Management | BMP#6: Filter Strip |
| | BMP#7: Grasses and Legumes in Rotation |
| | BMP#8: Mulching |
| | BMP#9: Pasture and Hay Land Management |
| | BMP#10: Strip Cropping |
| | BMP#11: Critical Area Planting and Treatment |
| | BMP#12: Pest Management Including Cultural Control |
| | BMP#13: Cover Crop |
| | BMP#14: Nutrient Management |
| | BMP#15: Grassed Waterways |
| | FARMSTEAD |
| | BMP#1: Solid Waste Procedures |
| | BMP#2: Septic Systems and On-Site Disposal |
| | BMP#3: On Farm Petroleum Storage and Handling |
| | BMP#4: Well Protection |
| | FORESTRY |
| | BMP#1: Construction of Access Roads and Skid Trails |
| | BMP#2: Revegetation |
| | BMP#3: Streamside Management Zones |
| | BMP#4: Sinkholes |
| | BMP#5: Logging Debris |
| | BMP#6: Proper Planting of Tree Seedlings by Machine |
| | BMP#7: Fertilization |
| | BMP#8: Application of Pesticides |
| | BMP#9: Site Preparation for Reforestation |
| | BMP#10: Silviculture in Wetland Area |
| | LIVESTOCK |
| BMP#2: Proper Grazing Use | BMP#1: Planned Grazing System |



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Best Management Practices (BMPs) July 11, 2011

- CROPS [+]
- FARMSTEAD [+]
- FORESTRY [+]
- LIVESTOCK [+]
- PESTICIDE AND FERTILIZERS [+]
- STREAMS AND OTHER WATERS [+]



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- CROPS [+]
- FARMSTEAD [+]
- FORESTRY [+]
- LIVESTOCK [+]
- PESTICIDE AND FERTILIZERS [+]
- STREAMS AND OTHER WATERS [-]
 - **BMP #1: Stream Crossing Protection** [+]
 - **BMP #2: Sand and Gravel Removal** [+]
 - **BMP #3: Streambank and Shoreline Protection** [+]
 - **BMP #4: Proper Stream Drainage Maintenance** [+]



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- CROPS [+]
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- FORESTRY [+]
- LIVESTOCK [+]
- PESTICIDE AND FERTILIZERS [+]
- STREAMS AND OTHER WATERS [-]

BMP #1: Stream Crossing Protection [+]

Bridge or low water crossing built for tractors or trucks to reduce effects on streams. Covers activities described by Corps of Engineers Nationwide Permit #14. To use this BMP in your water quality plan you should:

- Construct the low water crossing in a way that does not block the flow of the stream.
- Minimize soil erosion and removal of streamside plants.



BMP #2: Sand and Gravel Removal [+]

BMP #3: Streambank and Shoreline Protection [+]

BMP #4: Proper Stream Drainage Maintenance [+]



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Best Management Practices (BMPs) July 11, 2011

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- FORESTRY [+]
- LIVESTOCK [+]
- PESTICIDE AND FERTILIZERS [+]
- STREAMS AND OTHER WATERS [+]

Educational Tools - Brochure



What is an Agriculture Water Quality Plan?

The Kentucky Agriculture Water Quality Plan consists of best management practices (BMPs) from six areas: silviculture (forestry); pesticides and fertilizers; farmstead; crops; livestock; and streams and other waters. The statewide plan serves as a guide to individual landowners/land users as they develop water quality plans for their individual operations.



How does the act define agriculture and silviculture operations?

According to the Kentucky Agriculture Water Quality Act, an "agriculture operation" is defined as any farm operation on a tract of land, including all income-producing improvements and farm dwellings, together with other farm buildings and structures incident to the operation and maintenance of the farm, situated on 10 contiguous acres or more of land used for agriculture or silviculture or devoted to meeting the requirements and qualifications for payments to agriculture programs under an agreement with the state or federal government.

Agriculture operations include, but are not limited to, production of livestock, livestock products, poultry, poultry products, milk, and milk products, or for the growing of crops such as but not limited to tobacco, corn, soybeans, small grains, fruits, and vegetables.

What is the process for developing and implementing an individual water quality plan?

First, landowners must assess their operations and determine if they need an agriculture water quality plan. Once the assessment is complete, the landowner must choose the appropriate BMPs for his/her operation.

Who is responsible for developing an Agriculture Water Quality Plan?

The landowner is responsible for preparing an agriculture water quality plan that best meets the needs of his/her particular farming operation. This plan belongs to the landowner and must be available in the event that water pollution occurs and is identified and traced to his/her agricultural operation. A self-certification form, can be filed with the local conservation district.

An interactive online tool is available at www.ca.uky.edu/awqa to help landowners decide which best management practices (BMPs) are needed for their farm.

For more information regarding the workbook or online computer version contact your local Conservation District office, county Extension office, or Amanda Gumbert at 859-257-6094 or amanda.gumbert@uky.edu.



Educational Tools - Facebook

Water Quality in Kentucky - Windows Internet Explorer

http://www.facebook.com/pages/Water-Quality-in-Kentucky/209031759109069

File Edit View Favorites Tools Help

Water Quality in Kentucky

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Water Quality in Kentucky · Everyone (Top Posts)

Share: Status Photo Link Video Question

What's on your mind?

Water Quality in Kentucky added a new photo.



KENTUCKY AGRICULTURE WATER QUALITY AUTHORITY

Producer Workbook

Wall Photos

18 People Reached · 1 Person Talking About This

Like · Comment · Share · October 2 at 2:53pm

Water Quality in Kentucky We have come a long way since 1/1/97 to <http://warehouse.ca.uky.edu/AWQP2000/index.html>

Kentucky Agriculture Water Quality Planning Tool
warehouse.ca.uky.edu

This web site contains an on-line tool to be used by landowners to assess their ...

See More

October 2 at 2:56pm · Unlike · 1 · Remove Preview

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- Kentucky Emergency Management
- Canon Envirothon
- Kentucky Division of Forestry
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Admins (3) [?] See All

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Recommended Pages See All

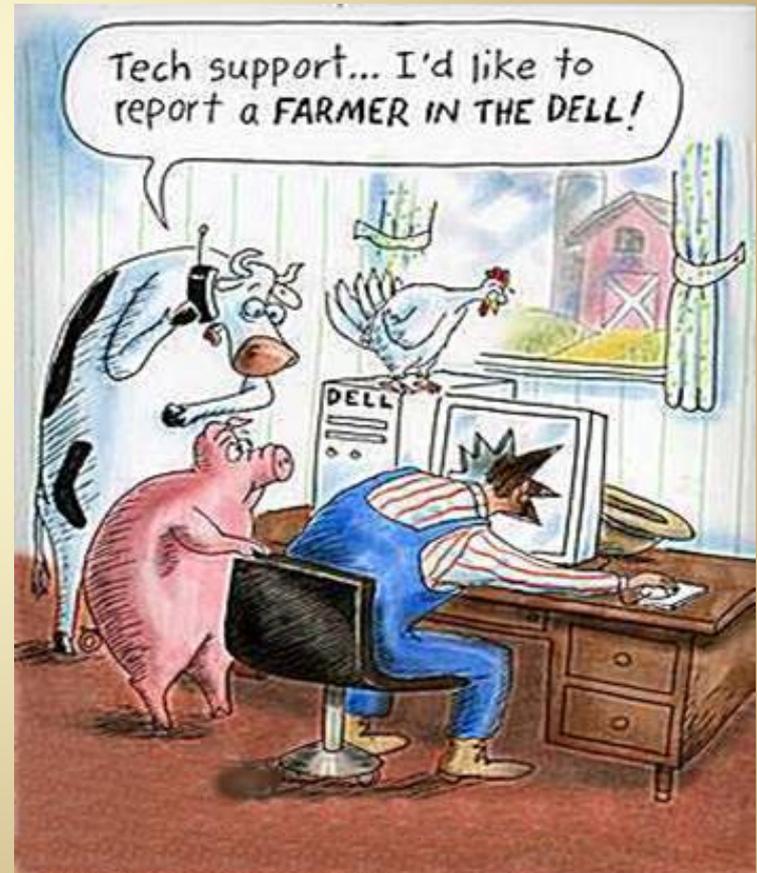
- Fayette County 4-H 2 of your fans like this. Like
- Camping 4 of your fans like this. Like
- UK2K 3 of your fans like this. Like
- Barren County Cooperative Extension... 5 of your fans like this. Like

What's Next?

- Finishing touches on web tool
- Smartphone apps?

Bottom line ?

Protect Water Quality



Questions?

