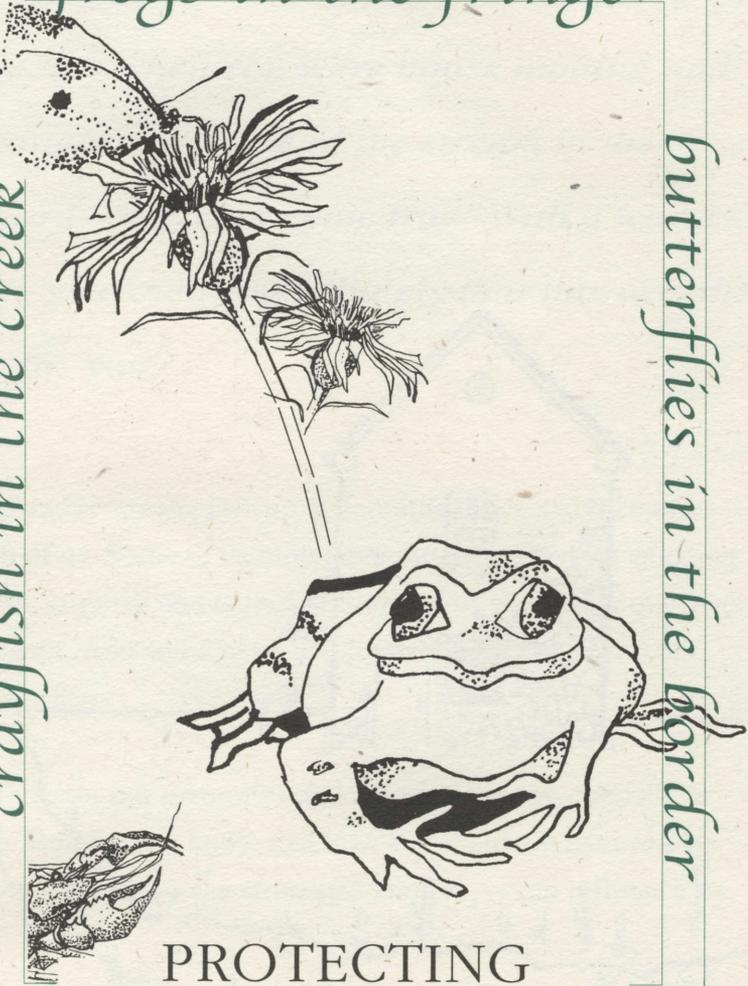


*frogs in the fringe*

*crayfish in the creek*

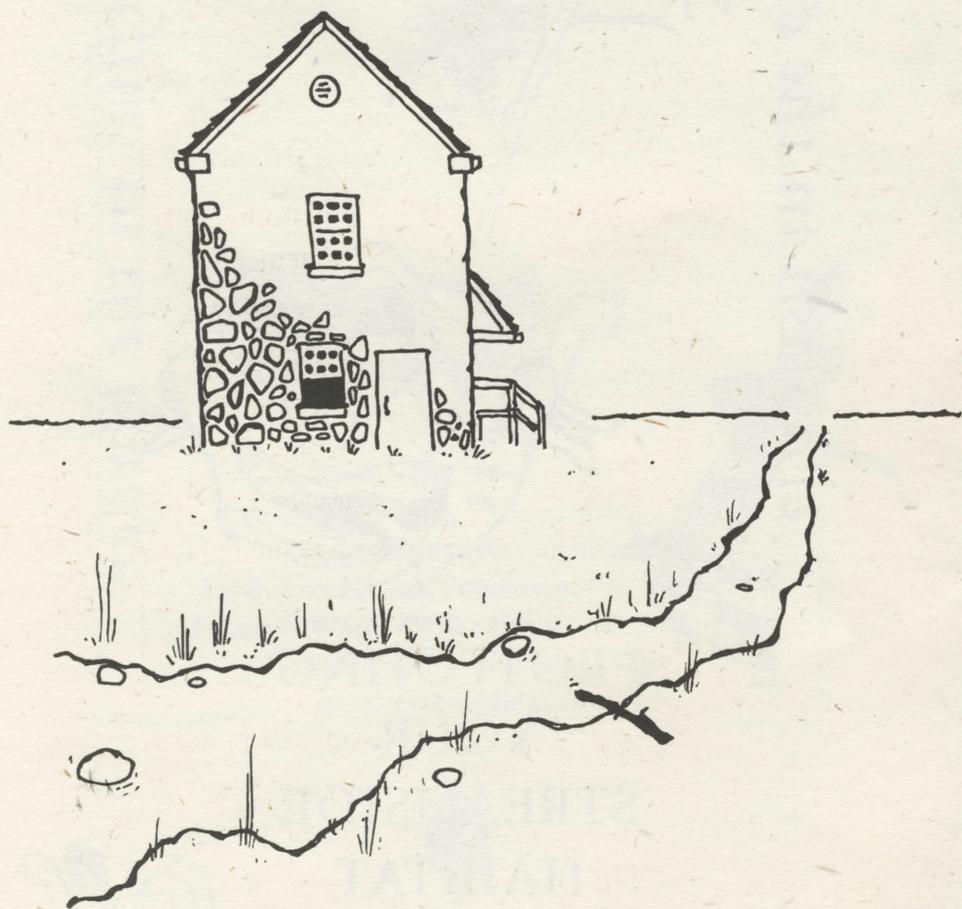
*butterflies in the border*



PROTECTING  
YOUR  
STREAMSIDE  
HABITAT



Green Valleys  
Association



*Think back*

*to that day when you were house hunting and you caught a glimpse of the stream in the backyard – a dream come true! With a warm feeling you knew immediately that this was the home for you.*

Streams and rivers conjure up different feelings and memories for each of us. Some of us remember the excitement of catching minnows, crayfish and tadpoles. Some of us remember our favorite fishing spot. And some of us just love the relaxing sound of trickling water.

Whatever our memories and associations, we cherish our streams. But did you know that how you maintain the property along your stream — the streamside buffer — can influence its health?

Inside this booklet we explain what you as a homeowner and stream caretaker can do to ensure the beauty and health of your streamside. The birds, butterflies, frogs, fish, and stream lovers of future generations will thank you!

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*beautiful water ♦ home at last*

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## *What does a buffer do?*

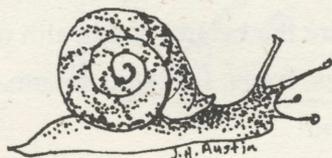
### *What is a streamside buffer?*

*A streamside buffer includes both the plants and soil alongside a stream.*

*This may include meadow grasses, shrubs, trees, or any combination of these. Working together, the plants and soil nourish and protect your stream.*

***Filters pollution*** — A buffer slows surface run-off when it rains. This gives the rain water time to seep into the ground before it enters the stream. The ground seeping process filters out toxins, such as herbicides and pesticides, and excess nutrients from fertilizers that would otherwise run directly into our streams.

***Prevents erosion*** — Buffers prevent harmful erosion and sedimentation. Erosion robs your yard of essential topsoil and nutrients. Soil sediments washing into the stream can bury the habitats of aquatic insects. Destruction of these habitats removes a basic part of the food web that would otherwise feed fish, amphibians, reptiles, birds and mammals. An important part of the ecosystem dies.



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*filters toxins ♦ prevents erosion*

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***Reduces flooding*** – Forests with leaf litter, and un-mowed grassy areas provide greater resistance to runoff flow than maintained lawns. They slow the rate at which heavy rains can enter streams and rivers. But all vegetation is not created equal. The runoff from a lawn can be almost as great as the runoff from asphalt!

***Stabilizes stream banks*** – Plant roots form a strong network that stabilizes banks and surrounding land. But again, not all plants are created equal. Grass roots are shallow and are not sufficient to hold a bank. The roots of other perennials, shrubs, and trees will extend deeper and stabilize and hold the soil.



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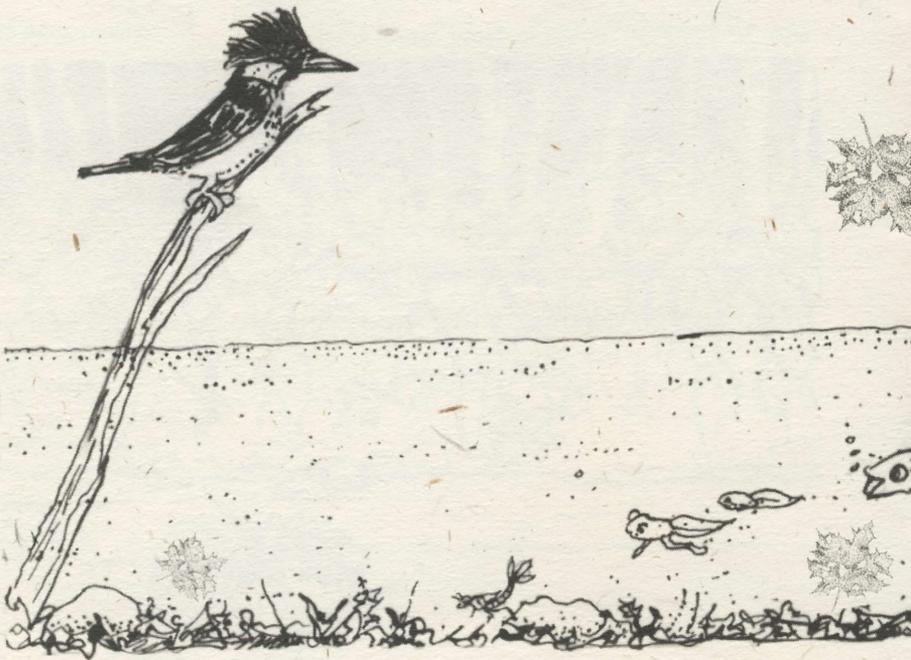
*reduces flooding ♦ stabilizes banks*

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## *What else does a buffer do?*

***Provides habitat*** — One of the biggest benefits of a streamside buffer is the habitat it creates and the food source it provides. Create a buffer, and you're providing food and shelter for wildlife. You'll be rewarded by the beauty of butterflies and crickets. You'll be able to enjoy frogs, salamanders, turtles, birds and small mammals.

***Regulates water temperature*** — Shade from trees and shrubs stabilizes water temperature and keeps it cooler. This is essential for water quality and aquatic life. Cooler water holds more dissolved oxygen that fish and other stream animals need to flourish.



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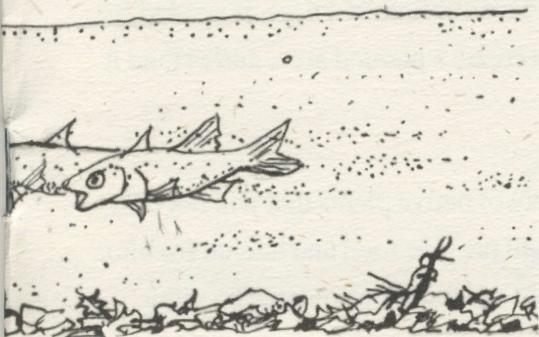
*habitat ♦ temperature control ♦ nutrients*



***Provides nutrients*** –A buffer provides a stream with up to 90% of its nutrients in the form of fallen leaves.

*The food web starts right here.* The leaves feed the aquatic insects that in turn are food for fish, amphibians, reptiles, and birds. These, in turn, provide food to other amphibians, reptiles, birds and mammals.

It's really very simple — if you follow the basic needs of a stream, you'll improve the water quality of the stream.



## *Double Your Pleasure*

*Encourage your  
neighbors to  
protect their  
streamside, too.*

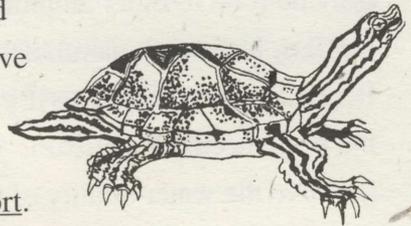
*By creating a  
corridor of  
streamside  
buffers, you'll  
increase nesting  
and migration  
areas for wildlife.*

## How do I create a buffer?

It's not difficult to create a streamside buffer. And, creating and maintaining a buffer is the **MOST COST-EFFECTIVE AND MAINTENANCE-FREE** way to enhance your property.

### Here are some guidelines:

1. For starters, eliminate obvious non-native invasive plants, such as multiflora rose, Japanese honeysuckle, grape vine, and purple loosestrife. If you have native trees and shrubs in the area, removing the invasive plants may be all you need to do.



2. When you mow your lawn, stop short.

If you can, leave an un-mown area 25-30 feet to the edge of the stream. With a streamside buffer, wider is better, but even a small strip of vegetation is better than none.

3. If bare lawn currently extends to the edges of the stream, add perennials, shrubs, or small trees. Plant one area at a time, if needed for cost comfort. The aim should be to create a planted area, and extend it as wide as you feel is affordable.

4. Go native. There are a wide variety of native plants that will not only add to your viewing pleasure, but will provide food and habitat for birds and other wildlife. Native plants need minimal care and will be more successful.

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*remove non-natives ♦ plant trees & shrubs*

5. During the first year, ample water is critical for new plants to assure the establishment of a good root system. Plant vegetation in the early spring or fall to lessen the need to irrigate.

6. Whether you choose to plant annuals, perennials, shrubs, or trees, try to meet three basic criteria. The plants should be:

- native, and suited to this climate,
- relatively fast-growing to establish good root growth,
- able to thrive in wet soils and withstand periodic flooding.



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*stop short when you mow*

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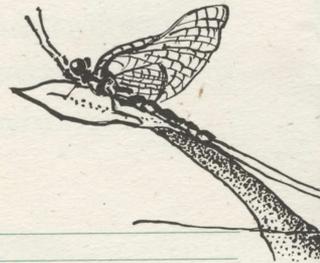
## *So, having a buffer is a good thing?*

Definitely. Remember, we all live downstream *and* upstream. If we want to enjoy the beauty and pleasure of healthy streams, it's important for us all to be aware of our role as stewards.

Let's face it — our rivers are in trouble. Two-thirds of our streamside forests have been eliminated. One-third of our fish species is threatened with extinction. We, as local residents, are in the best position to overcome these problems.

Most of the damage that has been done to our streams is the result of a lack of knowledge. Without understanding the benefits buffers provide, real estate developers typically clear away plants for better views. Farmers often cultivate fields down to a river's edge to make use of every bit of available land. And homeowners themselves clear trees and mow to the water's edge, unaware of the life and beauty in a streamside habitat.

We are all stewards. It is up to us to keep our streams healthy, productive and beautiful. Enhancing or regrowing a forested streamside buffer puts the stream back into its natural ecosystem. When you plant and maintain a buffer, everyone benefits!



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*we are all stewards*

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## *About Green Valleys Association*

We are your neighbors and are very interested in Our Watersheds: The mission of Green Valleys Association is to help our community maintain and restore its streams, streamside, and ultimately its watersheds. We hope that the information in this booklet will be helpful to you.

### *How we can help*

We will send qualified people to your property to answer any questions and provide possible solutions for your streamside situation.

We will be sponsoring a workshop in your neighborhood and hope you will be able to attend.

If we can assist you in any way, please feel free to give us a call at 610-469-4900.

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*Green Valleys Association works in partnership with Stroud Water Research Center. We appreciate Stroud's support in developing this brochure and their ongoing assistance in other GVA efforts.*

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*Drawings of stone house and dragonfly donated by Adam Wenger.  
All other artwork by Janet H. Austin.*



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*Protecting today's environment for a greener tomorrow.*