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**Sent:** Monday, May 4, 2020 2:18 PM

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**Subject:** Oscar Mayer Special Area Plan

Good morning my council colleagues,

Over the last six months you have received hundreds of emails in support of preserving the wetland and ecological area of Hartmeyer. The Oscar Mayer Special Area Plan (OMSAP) proposed to preserve only 13 acres of the wetland area and the remaining 18 acres of natural area have been left for development.

As most of you know, I feel strongly about protecting the environment and this ecological area. Northside residents, overwhelmingly oppose any development on the 31 acres of Hartmeyer land.

I strongly believe that in order to preserve a viable, bio-diverse wetland ecosystem with healthy populations of pollinators, amphibians, birds and other wildlife requires preserving a large surrounding upland natural area, not just the wetland plant area delineation. To preserve wild and native food systems for all species we need to preserve the whole ecological system. Without a large area of surrounding upland natural habitat area, the rich wetland ecosystem biodiversity will die out and most species will become extirpated and become locally extinct. Only a few hardy species will remain. For more information on preserving all natural areas with wetlands please review the attached DNR amphibian reptile document.

I worked with Friends of Hartmeyer during this OMSAP process and I am sharing a memo written by Friends. To write this memo Friends, myself and other stakeholders have spent hundreds of hours conducting research, meeting with the DNR and other stakeholders and educating the community about wildlife corridor benefits. Furthermore, this memo will help you to understand why we need to save all 31 acres and what great benefits it can provide to our city and community.

Please see the attached memo and let me know if you have questions.

Best,  
Syed

## Hartmeyer Natural Area Historical and Ecological Assets – In Support of Option C - Conservation

Please support Adding and Pursuing Option C – Conservation – in the Oscar Special Area Plan and other City planning so that the Alder authorized Appraisal and Assessment and City departments can fully explore this planning option including the environmental assets and potential funding and grants in collaboration with Dane County, Groundswell, and other possible funding and support partners, for purchase of the Hartmeyer Property as a City Nature Park for this and future generations to enjoy!

This Historical and Ecological Assets report was voluntarily prepared 02/09/2020 at the request of City Alder Syed Abbas by Paul Noeldner, Friends of Hartmeyer Natural Area Chair and Volunteer Parks Liaison Coordinator for Madison FUN Friends of Urban Nature, a partnership of Parks, Environmental and Friends groups to Help Connect Madison Area Communities and Kids with Urban Nature, contact info 136 Kensington Drive Maple Bluff WI 53704 608-698-0104 [paul\\_noeldner@hotmail.com](mailto:paul_noeldner@hotmail.com)

The following information is based on personal observations and reports. Additional Historical and Ecological Review including a survey of ecological assets should be requested as part of the City Alders authorized property appraisal and assessment and other planning and procurement steps.

- **Honoring Historic Ownership –**
  - **Native Americans** reportedly had gardens in some of the upland areas of extensive wetlands on Madison’s east and north side. This **First Nations history should be honored, for example some cities with Nature Parks feature Native American Gardens.**
  - The **Hartmeyer family** has owned the property and leased it to **Oscar Mayer** for the past 100 years while keeping most of the natural area intact. Oscar Mayer wells drew down the water table and for a time there were attempts to have **Little League ball diamonds** but elderly locals recall they were always wet. The water table has since rebounded and continues to rise with Climate Change increases in rainfall. This local **North Side history should be honored, for example park sculptures from old equipment and park murals.**
  - **Native Wisconsin Trees, Plants, Birds and Wildlife** have called the Hartmeyer Natural Area wetland and surrounding upland ecosystem home since the Ice Age and have evolved here over millenia to create symbiotic wetland ecosystems. This **Natural History should be honored, for example school kids could help make Nature Art Mural displays at the park entrance to educate the public about native plants and animals.**
- **Valuing Historic Wetlands –**
  - **Post Ice Age** maps show this area was a wetland waterway connecting Lake Mendota to Starkweather Creek and Lake Monona before the Tenney outlet became established.
  - **A 1906 map** shows most of the east side was wetland. **This 30 acre remnant is the only large remaining wetland and upland ecosystem in the Oscar area not yet destroyed**
  - **An elderly neighborhood resident** recalls a wood plank walkway was required to cross the wetland where Commercial Ave runs today. The full 30 acres can be restored.
  - **Urban Wetlands are becoming rare and need extra protections!**
- **Saving Historic Oak Trees –**
  - Several large oak tree specimens with an estimated age of 200 plus years (pre-Civil War) remain standing
  - **These historic trees tell the history of this relatively untouched area from Native American to European Settlement to Today**

- **Historic Neighborhood and Business Interest and Support –**
  - **The Friends of Hartmeyer Natural Area** is a new grassroots effort with deep roots. **People living in nearby neighborhoods are passionate about saving this area.** One often hears stories about how **as a child they regretted the loss of open natural areas near their home.**
  - Interviews and conversations over the years with **Pollock Auto Body, Esquire Club** owners and staff, **Dental Clinic** owners and staff, **Chets Car Care** and other local businesses indicate a lot of enjoyment of having this large natural area near their businesses and support for saving it.
  - **The best observers and advocates of local Sandhill Cranes and other birds and wildlife are neighborhood and business people who regularly spend time nearby and grow to love ‘their Cranes’ and ‘their Fox’.**
  - **Dane County Briarpatch** staff and residents love having the Hartmeyer Natural Area across the street and have helped over past years with cleanups and invasive plant removal facilitated by Paul Noeldner with Madison FUN, and enjoyed it so much they established regular Friday nature activities centered on Hartmeyer Natural Area. **This kind of exposure to helping nature is great for community building and their future.**
  - **People recognize the value of large natural areas in their neighborhoods. Realtors, homeowners and renters are certainly aware of and seek out the added value!**
- **Wooded Areas Help Create a Sanctuary –**
  - Clusters and tree lines of **Shagbark Hickory, Basswood, Black Cherry, Willow, Maples**
  - **These Upland Habitats provide food and shelter** for a variety of birds, insects, amphibians and other wildlife
  - **Wooded Areas help preserve a Large Quiet Sanctuary in the middle of urban activity**
- **Wetland Areas and Ephemeral Ponds In All 30 Acres Support Rich Biodiversity –**
  - **Native and Hybrid Cattails, Horsetail, Sedges**
  - A US Fish & Wildlife aerial map shows **large Emergent Wetland Plant areas extending from the year round wetland pond all the way over to the Oscar side rail corridor**
  - The presence of Horsetail in the wetland ditches along the Oscar side rail corridor, along with high amphibian populations in Spring in that area, point to the importance of preserving the whole 30 acres including the seasonal wetland pools and ecological habitat in the upland areas along the Oscar rail corridor not just the wetland pond area.
- **Upland Plants Provide a Pollinator Paradise**
  - **Milkweed Species** include **Whorled Milkweed** (very large stands in upland areas along the Oscar rail corridor) and observations reported of **Sullivant’s (Prairie Milkweed) which is a Wisconsin Threatened species** and high value plant for Monarchs
  - While a survey of native upland plants remains to be done, most of the upland area is **relatively free of invasive woody plants** which **indicates high value for prairie plant preservation and restoration** without expensive woody invasives removal
- **Bird Species - 56 Species recorded in Cornell Lab of Ornithology eBird reports 2012 to 2019**
  - **Breeding Birds (territorial behavior/nesting/raising young)** include Canada Goose, Wood Duck, Blue-winged Teal, Mallard, Pied-billed Grebe, Mourning Dove, Chimney Swift, Sora, Sandhill Crane, Killdeer, Cooper’s Hawk, Red-tailed Hawk, Red-bellied Woodpecker, Northern Flicker, Eastern Phoebe, Eastern Kingbird, Warbling Vireo,

American Crow, Tree Swallow, Black-capped Chickadee, House Wren, American Robin, Gray Catbird, European Starling, House Finch, American Goldfinch, Song Sparrow, Baltimore Oriole, Red-winged Blackbird, Yellow Warbler, Common Yellowthroat, Northern Cardinal, House Sparrow

- **Resident and Migratory Birds (feeding, taking shelter, social behavior)** include Northern Shoveler, Canvasback, Bufflehead, Least Sandpiper, Spotted Sandpiper, American Woodcock, Ring-billed Gull, Turkey Vulture, Belted Kingfisher, Yellow-bellied Sapsucker, Downy Woodpecker, Great Crested Flycatcher, Eastern Phoebe, Blue Jay, Northern Rough-winged Swallow, Barn Swallow, Cliff Swallow, White-breasted Nuthatch, Cedar Waxwing, Purple Finch, Chipping Sparrow, Common Grackle, Dickcissel
  - **Sandhill Cranes have nested in the Hartmeyer Natural Area every year for many years** and use the surrounding Upland Ecosystem as their primary foraging area. **The quality of this historic wetland and surrounding upland ecosystem is indicated by the fact that they successfully raised 3 Colts in one year, which is fairly uncommon.**
  - **Bluebird Trail** – with permission from Oscar Mayer, Paul Noeldner has maintained and done weekly monitoring of Bluebird Boxes for a number of years with a **high success rate for Bluebird nesting especially by the Oak Opening and surrounding upland area**, the boxes have also been used by other native species including **Tree Swallows, House Wrens, and Black-capped Chickadees. These are great Nature Education tools!**
  - **Wood Duck Houses** – about **20 male Wood Ducks** gather each spring behind the Dental Clinic and on average about **3 pairs breed in the area each year** with one or more pairs utilizing provided Wood Duck Houses (several females may lay eggs in one box) and natural nesting cavities in surrounding wooded area trees.
  - **Prothonotary Warbler Box** – this rarely seen bright yellow bird is a **Wisconsin Species of Special Concern**, with guidance from UW and DNR Experts a Prothonotary box was installed in a stand of Willows in year round open water in an area that used to dry out each summer, and nest box observations indicated nesting occurred
  - **Red-tailed Hawks** – a **pair of Red-tailed Hawks has used the Hartmeyer Natural Area as the center of their near Northside nesting and hunting range for many years.** Paul Noeldner helped the **Dane County Wildlife Center radio track Oscarina the female for about 3 years**, her favorite perches for hunting were the **upland area Oak Opening and upland area tree lines and the Cell Tower adjacent to the upland** behind the Ice Arena
  - **Osprey** – a pair of Osprey were observed scouting the Cell Tower and making repeated landings last fall as a potential nesting site.
- **Mammal Species –**
    - **Fox** – there is a resident breeding pair with an active den for many years behind the Dental Clinic on North Sherman plus a second fox den nearby along the Commercial Avenue crossing rail corridor which is indicative of an extended fox family in residence according to UW Wildlife Ecology Professor David Drake
    - **Groundhogs – also called Woodchucks**, upland activity and burrows observed, their **extensive 60 foot multi-chamber burrows and mounds of disturbed earth improve water permeability and offer ecologically important foraging sites and shelter** for many other mammal, bird, insect, and amphibian species

- **Muskrats** - the wetland relative of the Groundhog, wetland activity observed, **marsh reed 'push-up' muskrat shelters create habitat diversity and provide foraging and nesting sites for waterfowl species, and muskrat shoreline burrows help increase biodiversity**, improve permeability and are ecologically important for other mammal, bird, insect, and amphibian species for foraging and shelter
- **Deer** – White-tailed Deer use secluded upland tree borders and habitat as a sanctuary for resting and travel through this area.
- **The Oscar rail corridor and Sherman rail corridor provide critical ecological greenway connections between Hartmeyer Natural Area and Tenney Park on the Isthmus, Maple Bluff Golf Course, Warner Park, Starkweather Creek and Cherokee Marsh.**
- **Many Other Small Mammals** – including Voles, Mice, Skunks, Opossum, Raccoon help create a biodiverse and interconnected ecosystem and also utilize the rail corridor connections.
- **Insect Species –**
  - **Monarchs and other Butterflies** – observed feeding on nectar and in larval stages, primarily in the upland areas where there are large stands. **The Wisconsin Monarch Collaborative, City of Madison and WI Pollinator Protection Task Force have set goals preserve and extend remaining natural areas with milkweed and other pollinator plants in urban areas as well as rural areas**
  - **Bees and Other Insects** – Bumblebees, Dragonflies, Lightning Bugs
  - Wetland larvae and adult insects attract large numbers of Swallows and amphibians that depend on them as a major food source and biotically help keep populations in check.
  - **This is Madison's largest near Northside Pollinator Garden and Rain Garden!**
- **Amphibian Species –**
  - **Chorus Frogs and other Frog Species** – Possibly the largest remaining population of Chorus frogs and other frogs on Madison's near Northside gather in wetland borders and ephemeral upland pools to sing and breed in Spring (they do not like to lay eggs in open water ponds where fish and other predators consume them). Park along Commercial and listen each Spring! This is a major 'Refugium' for these species.
  - **The entire 30 acres including the springtime ephemeral ponds and wet ditches along the Oscar rail corridor are critical for ecologically challenged amphibian populations**
  - **Snapping Turtles, Painted Turtles and other Turtle Species** – This is a high value area for turtle species because **turtles dig their nests and lay their eggs in nearby uplands and prairie areas, not in the wetland area itself.**
  - **A contiguous urban natural area that has a wetland and safe access for turtles, frogs, salamanders and other amphibians to travel and lay eggs and forage in adjacent large upland areas without crossing any roads, is a big plus for preserving the whole 30 acre area intact as a Nature Sanctuary with low-impact human bike and walk access**

#### **Water Quality and Infiltration Assets –**

- **High Quality Wetland and Upland** – There is currently fairly limited urban area acreage runoff into this historic natural wetland and upland area.
  - City engineers have indicated they do not plan to introduce any additional storm sewer runoff into the area.

- This is a Major Plus for saving the entire 30 acres as a conservation focused nature sanctuary and for successful preservation and restoration of high quality populations of native plants and wildlife at much lower cost than creating new ponds and wetlands to offset large areas of impervious development and redevelopment.
- **High Quality Infiltration Assets** - This area provides 30 Acres of direct rainfall infiltration at no cost to the City.
  - The upland areas can support deep rooted native plants that help increase infiltration; water stays on site without contributing to runoff and phosphorus and salt pollution into our lakes
  - **Preserving All 30 Acres helps the City offset the negative impacts on Madison's lakes from large areas of development and redevelopment in adjacent Northside areas**
  - **Preserving this 30 acre natural infiltration asset offers a large value to the City by where plans offer little or not room for on site ponds or infiltration areas.**
  - **Storm sewers and artificial retention ponds cannot offer equivalent ecological benefits to having a 30 acre intact thriving ecosystem**, not just water draining into subsoil through pervious surfaces or into a pipe that offers no ecological asset benefits to the city or to birds and wildlife
- **Building Up Not Out** – Development and redevelopment on surrounding areas is compatible with preservation of the 30 acre Hartmeyer Natural Area
- Building Up Not Out with more stories on existing residential and business properties that are already developed with impervious roofs, streets and surfaces offers the City the opportunity to have substantially more housing and businesses on existing footprints with the same or similar impervious roof and infrastructure profiles.
- **Building Up Not Out make sense because it avoids paving over and building on and reducing the infiltration benefits and ecological benefits of this existing 30 acre natural infiltration area.**

#### **Carbon Sequestration Assets**

- **30 Acres of Carbon Credits** – The 30 acre Hartmeyer Natural Area already provides the City with a large area of carbon sequestering trees and plants at very low taxpayer cost to the City.
  - The Carbon Benefits for the City can be further improved by preserving and restoring populations of deep rooted native species and native trees in the Upland Areas.
  - **These Carbon Benefits to the City help offset the Carbon Costs of increased development, redevelopment, density and energy use in adjacent City plan areas.**

**Thank You for considering and honoring these valuable Historical and Environmental Assets of the Hartmeyer Natural Area!**

**Please support including Option C – Conservation as one of the Oscar Special Area Plan options and in other City agency and Northside planning options.**

**Please support enabling City staff to explore opportunities in collaborations with Dane County and other partner groups to try and purchase the Hartmeyer property as a City of Madison Nature Park and Community Place Making Open Space.**

# Protecting Wetlands for Amphibian and Reptile Conservation

Wetlands are important elements of a watershed because they serve as the vital link between land and water resources. Wetlands play an integral role in the ecology of a watershed. Their shallow waters, nutrients, and primary productivity are ideal for organisms that form the base of the food web upon which many species of wildlife depend. Wetland habitat provides the necessary food, water and shelter for mammals and migrating birds. Other animals, such as amphibians and reptiles, collectively known as herpetofauna, or “herps,” depend on wetlands for all or part of their life cycle, meaning that their survival is directly linked to the presence and condition of wetlands.



## Amphibians and Reptiles Depend on Wetlands

Wetlands serve as critical habitat for many species of amphibians and reptiles. Most amphibians lay gelatinous eggs under water, while others, like certain salamanders, lay their eggs on moist land. After the eggs hatch, the baby amphibians enter an aquatic larval stage, which can last from several days to many months. Once the aquatic stage is completed, the amphibians leave the water and enter the terrestrial adult stage of life. Wetlands serve as breeding sites, as a habitat for larval development and as a primary food source for adults. Insects, spiders, snails, worms and small fish are all prey for certain amphibians.

For many reptiles, wetlands also serve as primary habitat, supplying them with an ample source of food and habitat for breeding and nursing. Specially adapted reptiles that are able swimmers are likely to be found in wetlands. Some of these include the common snapping turtle, spotted turtle, northern water snake, cottonmouth snake, diamondback water snake and garter snakes.

Amphibians and reptiles depend upon a variety of wetland types. These may include marshes, swamps, bogs and fens (and their associated subclasses). Some wetlands are only wet a portion of the year and are considered “ephemeral” wetlands. These wetlands provide important habitat and breeding grounds (see side bar).

There are often strong ecological connections among wetlands in a landscape. Although some may be permanent and others ephemeral, amphibian populations can depend on multiple wetlands within a given area. To protect these species over the long term, the variety and density of suitable habitat sites within the landscape must be preserved, along with terrestrial corridors that connect the wetlands.

### Why are ephemeral wetlands important?

Vernal pools, one type of ephemeral wetland, are of critical importance to amphibian populations. As small, often isolated wetlands, vernal pools are only wet for a portion of the year. Periodic drying creates a fish-free environment for amphibians, many of which have adapted rapid egg and larval stages as a race against the dry season. The absence of fish predators in vernal pools benefits amphibian populations.



Garter Snake (*Thamnophis elegans*) - When disturbed, garter snakes will release an unpleasant smelling musk from glands located at the base of their tail.

Photo courtesy of PARC



# Threats to Herps and Wetlands



Photo by Jay Osenkowski

The American toad (*Bufo americanus*) is one of the most commonly heard frog or toad species in the United States. The male toad's call is a long, uninterrupted 15-20 second trill that can be heard over a long distance.

## Wetland Habitat Loss

Over 220 million acres of wetlands are thought to have existed in the lower 48 states prior to 1700. Since then, extensive losses have occurred, and over half of our original wetlands have been drained and converted to other uses. Though the rate of loss has decreased in recent decades, wetlands and other aquatic resources are still threatened by activities such as ditching, draining, dredging and stream channelization; deposition of fill material for commercial and residential development, dikes, levees and dams; crop production, logging and mining. Since many amphibian species need both aquatic and terrestrial habitat, it is very important to preserve wetlands and a buffer strip of adequate upland habitat.

### **Why are amphibians so vulnerable?**

Some amphibians breathe through their porous skin, which makes them extremely vulnerable to pollution in the soil, air, and water. You can think of amphibians as sponges that soak up their surrounding environment. This is why you shouldn't try to catch frogs if you have insect repellent on- the toxic repellent will seep into their skin and harm them.

## Chemical Pollution

Due to their amphibious lifestyles, herpetofauna are very sensitive to changes in the water and surrounding land. Many synthetic organic compounds and metals adversely affect amphibians and reptiles. Sublethal effects of chemical pollutants can impair a herp's ability to swim, catch food and reproduce successfully. Amphibians are particularly sensitive to chemical contaminants owing to their permeable eggs and skin. A recent study by the U.S. Geological Survey (USGS) showed that "organophosphorus pesticides from agricultural areas, which are transported to the Sierra Nevada on prevailing summer winds, may be affecting populations of amphibians that breed in mountain ponds and streams." The scientists estimate that damage could be even worse for those species more closely associated with water.

Endocrine disrupting chemicals (EDC) have been of great concern in the amphibian and reptile community. Studies have shown that chemicals like polychlorinated biphenyls (PCBs) build up in turtle eggs, reduce eggshell thickness and cause reproductive failure. Other studies have shown reduced male organ size among reptiles, which results in difficult sex recognition and the subsequent lack of reproduction. Both amphibians and reptiles are very susceptible to the dangers of EDCs.

*In order to maintain healthy amphibian and reptile populations, wetland habitat must be protected. A watershed contains multiple habitats, all of which are affected by changes in hydrology, land use and water quality. Since no habitat is isolated from its surroundings, protection of herps must take place at both the large-scale watershed level and at the smaller scale of individual wetlands.*

*Population declines and disappearances of amphibians and reptiles leading to widespread scientific and public concern have been well documented. The causes for their decline, while not fully understood, appear to be complex and numerous.*

**47 of the 60  
reptile  
species found  
in Illinois  
rely upon  
wetlands**



Photo by Alan Savitsky

Marbled Salamander (*Ambystoma opacum*) - Courtship begins when the male nudges the female with his snout.



## Nutrient Loading

The indirect effects of excess nutrients can be very detrimental to amphibians. Nutrients such as nitrogen and phosphorous can cause dominance of algae, which is not conducive to laying eggs. Excess nutrients can also reduce the amount of oxygen available in the water for amphibian tadpoles and alter the composition and numbers of the invertebrate communities that are food for the juveniles. In Texas, playa wetlands receiving nutrient-laden feedlot effluent were devoid of amphibians found in natural wetlands. In this case, experiments indicated that the nutrient concentrated effluent had to be reduced to less than 3% of its original strength in order to minimize adverse effects.

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***Some turtles, such as the diamondback terrapin, are endangered owing to commercial harvesting stemming primarily from the food industry.***

***The pet trade also endangers many reptiles, such as the box turtle.***

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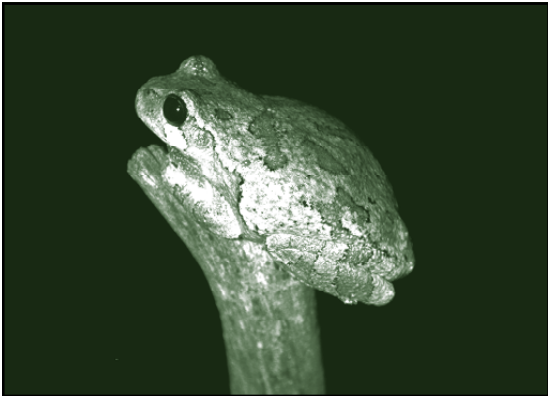


Photo by Melinda Knutson

Eastern Gray Treefrog (*Hyla versicolor*) - Its call is a resonant, flutelike trill similar to the call of the red-bellied woodpecker. Depending upon its environment, this treefrog can range in color from bright green to gray. They breed in permanent to semi-permanent wetlands.

***On the whole, it is difficult to document reptile population trends. Many species have secretive natures, which, when combined with large home ranges, low population densities and a rarity of congregational behavior; may result in a severe population decline without being noticed by people.***



Photo by Mark Bright

American Crocodile (*Crocodylus acutus*) - Once hunted intensively for their hides, today poaching and the loss of habitat to human development are the greatest threats faced by American crocodiles.

## Additional Threats

**Global climate change** may threaten aquatic and semiaquatic life by reducing wetland acreage due to frequency and severity of storms and sea level rise. Latitudinal shifts in temperature and precipitation patterns also threaten herps.

**Ozone depletion** causes an increase in the amount of Ultraviolet radiation that reaches the earth's surface and waters. Research has shown that UV-B radiation has adverse effects on some amphibians. The Montreal Protocol has reduced emissions of ozone-depleting chemicals.

**Invasive species** pose a constant threat to native herps. Invasive plants and animals can alter the ecological community that is relied upon by native reptiles and amphibians. Invasive herpetofauna can also directly damage native populations. In many parts of the U.S., invading bullfrogs are preying on and often eliminating other amphibians, as well as impacting some reptiles and fish.

**Disease and Parasites** significantly contribute to declining amphibian and reptile populations. To help prevent the spread of disease and parasites, follow careful washing procedures when traveling between wetlands.

# Conservation Efforts for Amphibians and Reptiles

Conservation efforts for amphibians and reptiles come in many different forms. Like other wildlife conservation efforts, the first step is to identify and monitor existing populations. The USGS has a volunteer monitoring program where participants learn to identify local frog calls and submit observational data at different times of the year.

Fortunately, laws are being passed in some States to protect herpetofauna. New Jersey adopted special protections for vernal pools to ensure sufficient regulatory review. California enforces laws to prevent people from taking native reptiles and amphibians without a license, except common herp species. The laws also forbid the sale of herpetofauna for human consumption. Various bird and wetland initiatives have positive impacts on herps as well.

The North American Wetlands Conservation Act (NAWCA), a habitat-oriented program led by the U.S. Fish and Wildlife Service, has been particularly helpful to amphibians and reptiles, as waterfowl and herpetofauna often share the same habitat. The conservation programs within the U.S. Department of Agriculture's Farm Bill program also help to preserve or restore habitat for herpetofauna.

## How Can You Help?

You can help to save amphibian and reptile diversity in many different ways. On a larger scale, working to protect your watershed is the first step to ensuring clean water and healthy habitat for herps. You should:

- Prevent soil erosion by seeding for grass or planting shrubs;
- Avoid dumping chemicals down drains;
- Maintain vegetative buffer strips between your land and any surface waterbody; and
- Avoid releasing or transporting exotic plant or animal species into the environment.

Protecting surface water and wetlands is important to promoting herp diversity. Identifying, monitoring and restoring local wetlands are great ways to educate yourself and your community about the important functions and values of wetlands. Supporting public and private organizations involved in habitat protection is another way to help. Further information can be found at <http://www.epa.gov/owow/wetlands/vital/protection>.



Photo courtesy of PARC

The chicken turtle (*Deirochelys reticularia*) is found in the southeastern United States from southeast Virginia to east Texas. Their preferred habitat includes quiet bodies of water such as ponds, swamps, and marshes. Although an aquatic species, it readily wanders and is often found out of water. They are mainly carnivorous, and their diet includes tadpoles and crayfish.

## PARC - Partners in Amphibian and Reptile Conservation

Partners in Amphibian and Reptile Conservation (PARC) is the largest herpetological conservation partnership in the nation. They are a habitat-focused partnership involving State agencies, Federal agencies, the private sector, conservation organizations, and the academic community. The partnership is dedicated to protecting endangered reptile and amphibian species and keeping common native species common. Their website ([www.parcplace.org](http://www.parcplace.org)) contains educational materials on the conservation of amphibians and reptiles along with an extensive list of weblinks.



EPA 843-F-03-015  
Office of Water

## Additional Resources

### On the Internet

- Partners for Amphibian and Reptile Conservation ..... [www.parcplace.org](http://www.parcplace.org)
- U.S. Environmental Protection Agency ..... [www.epa.gov/owow/wetlands](http://www.epa.gov/owow/wetlands)
- U.S. Geological Society ..... [www.usgs.gov/amphibians](http://www.usgs.gov/amphibians)
- U.S. Fish and Wildlife Service ..... [www.wetlands.fws.gov](http://www.wetlands.fws.gov)
- USDA Natural Resources Conservation Service ..... [www.nrcs.usda.gov/programs/wrp](http://www.nrcs.usda.gov/programs/wrp)