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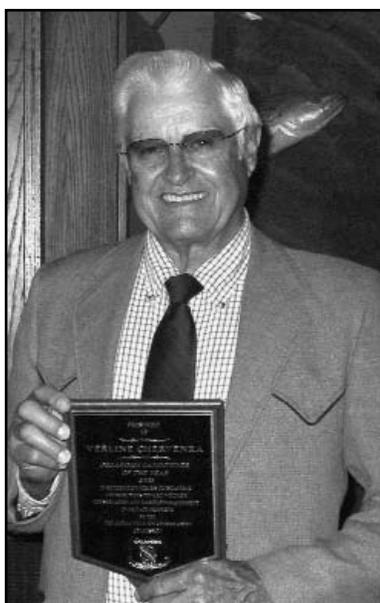
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ODWC Recognizes 2003 Oklahoma Landowner of the Year

For his extra efforts towards wildlife habitat management, Verline Chervenka was named the 2003 Oklahoma Landowner of the Year by the Oklahoma Department of Wildlife Conservation (ODWC). Chervenka was recognized for his outstanding contributions towards the enhancement of wildlife habitat that is benefitting a number of wildlife species.

For the past 15 years, Chervenka has farmed and ranched on 1,240 acres in Beckham County. He has a cow/calf operation set up on a rotational grazing program. His grazing rotation is designed to promote adequate ground nesting habitat for upland game species and to ensure a healthy native plant community. Chervenka's property is located in a drought prone area and his grazing system provides him flexible grazing distribution during extended drought periods. Interior fencing was completed on the ranch averaging 40 feet from existing fence lines that



**2003 Landowner of the Year
Verline Chervenka**

livestock grazing. The remainder of his cropland is planted to native grass, forbs, and legumes. Additionally, Chervenka was approved for the Conservation Reserve Program to obtain cost-share assistance for planting less productive acres to native grasses, forbs, and legumes. Herbicide spraying of weeds (forbs) is not an option for this landowner. Instead, Chervenka actually increases wildlife-friendly forbs by strip disking

were already in place. This is a very unique way of protecting native grasses to ensure adequate nesting cover is available during extended drought periods.

Chervenka still maintains approximately 95 acres of crop ground planted to a variety of forages beneficial for a variety of wildlife species. The crop fields are smaller in size and are protected from

during the winter months. He also provides emergency food resources in the late winter months via wildlife feeders.

Given the drought prone nature of his area, Chervenka has also constructed emergency watering sources in times of high stress. For example, Chervenka hauls water to specific watering locations built in the ground for wildlife. These locations are away from watering facilities used by livestock. Chervenka has also ensured adequate water resources for wildlife around all of his windmills by letting the water overflow into a small earthen pit pond next to the stock tanks. The windmills are left to run year-round, even when livestock are rotated out of the pasture.

Chervenka's property also contains the unique "shinnery oak" habitat which has been treated or removed in much of its native range. He knows the importance of

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Oklahoma Department of Wildlife Conservation Mission

Statement: Managing Oklahoma's wildlife resources and habitat to provide scientific, educational, aesthetic, economic and recreational benefits for present and future generations of hunters, anglers and others who appreciate wildlife.

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Landowner of the Year continued from front page

this woody species for wildlife and manages his grazing program to conserve this species. He has also sculpted the brush plant community to enhance the amount of edge for wildlife species in his shinnery oak habitat.

Rio Grande turkeys are one of Chervenka's favorite game species. To enhance his roosting sites, Chervenka has planted a variety of turkey-friendly hardwood tree species along a riparian area. One field border was also planted in a variety of hardwood tree species for additional cover and food resources.

Additionally, Chervenka has addressed a significant problem associated with turkey roost habitat throughout western Oklahoma. The spread of Eastern red cedar (ERC) is a critical problem for not only turkey roosts, but also loss of quality grazing acres. ERC infestation also results in the elimination of native wildlife vegetation that benefits many other species in addition to wild turkeys. If left alone, this invasive tree species will eventually out compete native tree species. ERC that isn't removed or subjected to prescribed burning will eventually grow up into the cottonwood tree canopy. When the roost tree canopy becomes choked with cedar trees, turkeys will likely move on to better sites if they are available. Chervenka has removed the cedars in and around his existing roost areas. Additionally, a fence was built to protect some of these riparian zones from cattle grazing. Chervenka obtained cost-share assistance for these projects through the ODWC's "Wildlife Habitat Improvement Program."

Yet another major project that Chervenka has accomplished on his property is the establishment of an 18- acre wetland area. Through cost-share construction assistance provided by the U.S. Fish and Wildlife Service's "Partners for Fish and Wildlife program," Chervenka's wetland provides quality habitat for a variety of migrating waterfowl and shore birds. He lowers the water level in the spring to stimulate the growth of moist soil plants, such as barnyard grass and smartweed. The plants then mature and produce seeds in late summer. This vegetation is then flooded in the fall to provide prime food resources for migrating waterfowl.

Economics will always dictate the amount of resources a landowner can use to manage his or her property. Chervenka



This wetland is one of several projects that were highlighted on Chervenka's property.

has used several cost-share programs to not only enhance his property for wildlife, but also livestock production. He consistently works with a number of agencies to obtain technical assistance and at times financial assistance for his management practices. However, long before current programs were established, Chervenka has implemented wildlife habitat projects on his own. Through his stewardship, Chervenka is reaping the rewards of his habitat programs. In the past few years, bobwhite quail numbers have stabilized and Rio Grande turkey numbers have increased. White-tailed deer are also doing extremely well and the property has produced some quality bucks in recent years. Overall, Chervenka feels that his habitat improvements will contribute to the bigger habitat picture and wildlife populations have responded by using his property on a year-round basis.

Equally impressive is the fact that Chervenka is willing to share his experiences and successes with others. He has also involved his children and grandchildren in his wildlife management activities. Chervenka believes it's important to expose young people to the concept of natural resources management. Oklahoma's land and wildlife resources will be enriched for future generations through the outstanding stewardship by landowners like Verline Chervenka.

Landowners Will Benefit from Cooperative Agreement

By John Hendrix, senior private lands wildlife biologist

Private landowners and Oklahoma's wildlife are the big winners thanks to a landmark cooperative agreement between the Oklahoma Department of Wildlife Conservation (ODWC) and the Natural Resources Conservation Service (NRCS). During its July Commission meeting, the ODWC signed a cooperative agreement with the NRCS to provide assistance with the federal Wildlife Habitat Incentives Program (WHIP).

The WHIP program has become very popular for many Oklahoma landowners during the past four years. WHIP provides an economic incentive to perform several kinds of habitat projects that a landowner may have wanted to do for a long time, but found it difficult to accomplish economically, technically, or both. WHIP was one of several programs approved in the Farm Security and Rural Investment Act of 2002 to enhance wildlife habitat and is available to Oklahoma landowners on a continuous sign-up basis.

The ODWC-NRCS cooperative agreement was one of the first in the nation using the technical service provider option in the Farm Bill. The agreement provides funding to hire much needed personnel to implement WHIP on a regional level. Over the past three months, the ODWC has hired four wildlife technicians, with private lands emphasis, who are stationed in the following communities: Higgins, Jenks, Lawton, and Woodward. These technicians are now "on-the-ground" working with landowners on a regional basis to process the backlog of new WHIP applications.

Within the agreement, the ODWC is responsible for completing several key

steps for each NRCS WHIP project. For new contracts, the wildlife technician arranges a meeting with a landowner for an onsite evaluation of the project, provides wildlife habitat technical assistance, estimates the cost of the proposed project, completes ranking forms, and develops a detailed map showing locations of the proposed habitat projects. The project information is then submitted to the NRCS for potential funding allocation.

If funding is approved, the Department will complete a detailed wildlife management plan for the project consisting of the estimated cost, timelines for project completion, and a detailed map showing location of the projects. Department technicians will maintain contact with the landowner throughout the life of the contract to ensure project completion. All enhancement projects must follow all federal guidelines and project specifications as determined by the NRCS. Department technicians are familiar with these guidelines and will provide technical guidance to landowners during implementation.

The NRCS responsibilities are to provide the Department with technical engineering support of pond/wetland construction and other dirt work, grazing management guidance, and the administration of cost-share payments after the project is inspected and is in compliance.

The following are some questions commonly asked by landowners.

If I receive cost-share assistance in this program do I have to provide public access to my property?

No, you still have control who is allowed to have access to your property.

Do I have to complete all approved projects in the same year?

No, you can set up your contract to complete projects throughout the life of the contract. However, you must begin at least one project in the contract the next year after you have received an approval letter.

Does my labor time and equipment use count towards my part of the cost-share of the project?

Yes, you can count your labor and equipment use as part of your cost-share contribution of the project. You must maintain accurate records of hours worked and tractor time used during the project.

A few key points of the WHIP program.

- Landowners will receive a detailed wildlife habitat enhancement plan for their property.
- Agreements are for 5-10 years in length.
- Landowners can receive 50-75% cost-share assistance for approved practices.
- No acreage is too small or too large.
- There are no limitations on cost-share amounts per contract.
- Landowners who already have approved WHIP contracts may modify existing contracts if the previous dollar limitation prevented you from applying additional practices on your property.

The following are just some examples of approved practices:

- Native grass/forb/legume planting.
- Prescribed fire plans.
- Tree and shrub planting.
- Conservation buffers.
- Pond renovation and construction.
- Fish pond management.
- Wetland construction and enhancements.
- Timber management, creating small openings and thinning of existing stands.

If you are interested in the WHIP program please contact your regional WHIP technician for an application and the technician can guide you through the application process. The WHIP Technicians names and assigned areas are as follows:

Northwest Region
Alva Gregory
3014 Lakeview Drive
Woodward, OK 73801
Office : (580) 254-9173
Mobile: (580) 571-5820
E-mail: alvagregory@sbcglobal.net

Southwest Region
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19333 State Highway 49
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Office: (580) 529-2795
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E-mail: swrwhip@mptelco.com

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Jenks, OK 74037
Office: (918) 299-2334
Mobile: (918) 607-1518
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Wilburton, OK 74578
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Stream Crossings and Riparian Zones

Considerations While Managing Your Land

Proper management of terrestrial habitats can be a daunting task for many landowners, but when you add in the management of streams to the mix, the challenges often become even more difficult. Striving for maximum production from the land while simultaneously maintaining the health of sensitive streams can be tough.

In this article, we will explore two primary management issues that directly impact streams - riparian zone management and stream crossings. It is important to remember that streams transport much more than we can easily observe. The health of streams depends on their ability to transport sediment and debris downstream. During this process, the stream channel is continuously meandering within its wider flood plain. This movement involves an exchange of sediment within the channel, which ensures that, while the stream may migrate back and forth through the valley, the basic shape of the channel remains the same. Sound confusing? Simply put, streams are a product of their watershed and will function quite nicely if left undisturbed.

Proper watershed management produces an efficient, healthy and natural functioning stream system that is stable. Conversely, poor riparian zone management and/or improperly designed stream crossings can cause channel instability and a variety of subsequent headaches.

Riparian zones (the buffer areas adjacent to the stream that are vegetated, and ideally protected from significant disturbances such as tilling, timber cutting, high concentrations of livestock, etc.) serve many important functions in streams. These channel boundaries protect stream banks from erosion, reduce nutrient loading and help to uptake overland runoff thereby reducing flashy flows. Landowners remove riparian zones for a variety of reasons including attempts to increase grazing acres for cattle production, improve appearance and for timber harvest. However, when riparian zones are damaged and/or removed, then other problems are likely to follow. First, with no hard armor provided by root systems of intact riparian areas, the channel begins to

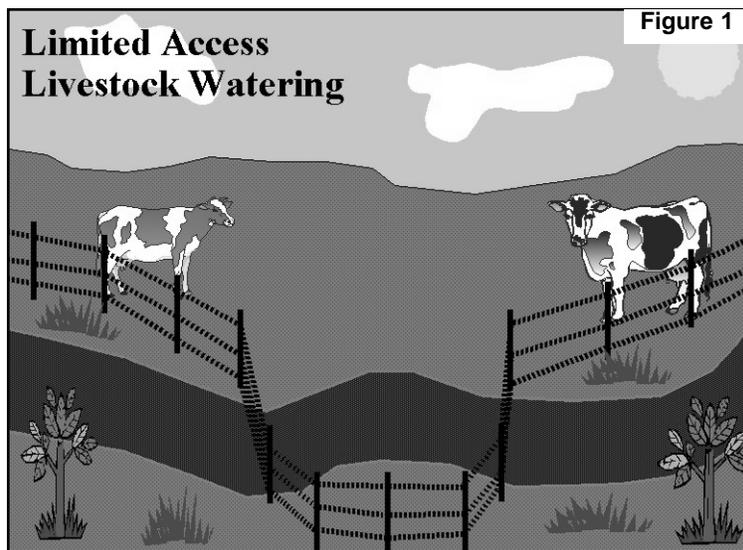
down-cut. Later, the channel becomes too wide as the deep narrow channel erodes laterally during floods. As the stream grows wider and shallower, the speed of the water is slowed which reduces the ability of the channel to transport sediment and debris as it should. Eventually, after significant land loss and lowering of the local water table, the stream will return to its original shape, but at a lower elevation. During this process, acres of land will be lost while many others become less productive as soil is replaced with gravel. Trees which were not previously destroyed may become stressed as the water table is lowered beyond their root systems. Wells for human and agricultural use may be rendered useless. Fences and property markers may also be lost.

Improperly constructed stream crossings can pose similar problems. These structures range from simple concrete slabs to full suspension bridges. Most crossings are constructed too low in the channel causing the stream to quickly become unstable. The crossings then act as small dams and channel constrictors that slow the water upstream and increase its velocity downstream. Once again, the channel is unable to transport its sediment and debris appropriately. Sediment begins to collect upstream while down-cutting occurs downstream resulting in major streambed elevation differences above and below the crossing. Material beneath the crossing is scoured away by water spilling over the structure. Widening of the channel upstream and narrowing of the channel

downstream is then the common result.

Improperly designed stream crossings are likely to become barriers to fish movement, which may threaten the populations of particular species. Other aquatic animals may suffer from the changes in the stream bed substrate. Ultimately, a significant stretch of stream is damaged and the crossing may fail.

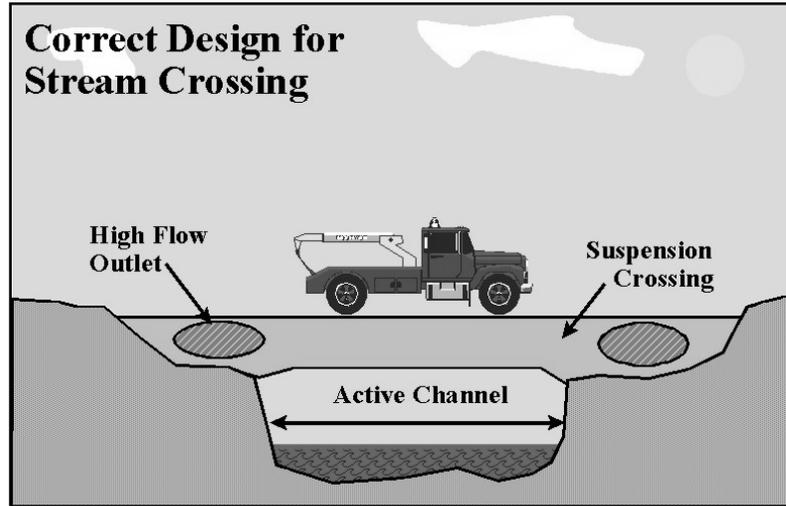
Using proper techniques for riparian zone management and constructing stream-friendly crossings will preserve their integrity with minimal burden to your wallet. Proper riparian management begins by protecting streamside vegetation from excessive grazing or other potential damage. Riparian zones should be maintained on each side of the active channel a minimum of two times the average channel width or 100 - 200 feet. If possible, exclusion of cattle from this area is desired with only minimal flash grazing during the growing season. Ranchers have numerous options for watering livestock including wells, ponds and diversions. These alternatives remove harmful effects of grazing (e.g., hoof trampling of stream banks) from the riparian area while maintaining a dependable water source. If alternative water sources are not an option, fencing can be used to direct cattle into a stream friendly watering site (Figure 1). Avoid steep banks when selecting the access site, as hoof shear will accelerate bank erosion. Also, maintain as much vegetation within the access point as possible. This will help stabilize the bank toe (where land meets the water), which is the most



It is important to protect the streamside vegetation from grazing and cattle damage. There are several options for watering livestock including wells, ponds and diversions. If these alternative water sources are not an option, fencing can be used to direct cattle into a section of the stream. Try to select an area that doesn't have steep banks, as the cattle will accelerate bank erosion. Maintaining the vegetation around the access point will also help stabilize the bank.

friendly watering site (Figure 1). Avoid steep banks when selecting the access site, as hoof shear will accelerate bank erosion. Also, maintain as much vegetation within the access point as possible. This will help stabilize the bank toe (where land meets the water), which is the most sensitive bank region. Lastly, do not mow the riparian zone. While grasses may appear to do little, they play a significant role in healthy riparian corridors.

As for stream crossings, the best economic and environmental approach is to not develop them. However, land access sometimes dictates their use. First, search for a site where the stream can simply be driven across during low flows without an artificial crossing. Avoid disturbing banks, which will increase erosion. If the stream channel does not offer a natural crossing then constructing one using proper protocols will minimize future problems. The most important consideration is constructing the crossing with adequate flow outlets situated at the proper elevation. Every crossing should span the active or defined channel and have flow outlets at the floodplain level as depicted in Figure 2. This will minimize scouring while maintaining sediment and debris transport capacity. Lastly, a bottomless culvert should be used when possible. If not, the culvert bottom should be placed a minimum of two feet below the natural streambed. Following these design parameters will ensure greater bridge



longevity and minimize impacts to aquatic animals.

Oklahoma streams.

It can be difficult for landowners to manage their land for productivity while maintaining streams in their natural functioning condition. But you don't have to do it alone. There is both technical, and potentially cost-share, assistance available through ODWC and federal natural resource agency programs. To learn more about these programs, and technical advice on stream management, contact one of ODWC's stream biologists (918) 683-1031 for Northeast Oklahoma streams, or, (918) 297-0150 for Southeast

Renovating Old Farm Ponds

By Larry Cofer, southwest region fisheries supervisor

Like the people and animals that use them, farm ponds have predictable life spans. Constructed in the right places, and given some occasional T.L.C., ponds can provide value for generations of anglers, duck hunters, and farmers.

Often ponds may last only a decade or so, due to poor dam construction or neglect. No matter how it's built or used, every farm pond will age, and a landowner is eventually faced with the fact that their oasis isn't as deep or wide as it once was.

Ponds with plowed fields and eroded washes in the watershed above them are loaded with silt during every rain. Even when pastures are well vegetated, some silt moves from the watershed into the pond. The problems are most obvious when a few months pass between rains, and evaporation takes its toll. Droughts like we've experienced the last two years in Oklahoma have left a lot of ponds low, and others completely dry for weeks. It was a time for many pond owners to closely consider their water needs -whether the old tanks were providing the kind of recreation and watering value that they expected or needed.

As pond edges receded in the dry spell, landowners were able to see the lost water volume. Some took advantage of the situation and invested in the future by renovating their ponds. Robin Burks, Soil Conservation Technician with the Natural Resources Conservation Service (NRCS) office in Lawton, worked with several landowners last winter on pond renovation projects in Comanche County.

"We like to see a minimum pond depth of eight feet when it's full, and that ensures that there's water in the pond even in the longer dry spells," said Burks. Matching funds may be available for deepening or rebuilding ponds, and it's usually based on a 50:50 cost-share. Burks said that the NRCS sometimes has funding appropriated for pond work after droughts, but not always. In some cases, money may be available from the WHIP and / or EQIP programs, but only when pond renovation is a part of a larger program to improve a farm for wildlife value.

Whether you have to do it yourself or want to apply for government cost-sharing, the NRCS in your county is the place to start with ideas on pond restoration. Even if money is not available, the NRCS offers free consultation, and can even check the

pond site and provide estimates on excavation amounts and costs. Each county office also keeps a list of reputable contractors that work on ponds and dams.



A bulldozer is the most cost-efficient tool when excavating a pond. The average rates for a bulldozer operator is \$85 an hour or \$1.50 per cubic yard removed.



When a pond is dry (or nearly dry), a bulldozer is the most cost-efficient tool for excavation. Large dozers can push more than small ones, but they may also be less nimble on a soft mud bottom. Most dozer operators prefer to charge on an hourly basis, and the going rate is around \$85 per hour. Burks recommends payment by the cubic yard of earth removed, or at least relating the hourly rate to a definite cubic yardage of material, so landowners get exactly the service they're paying for. The going rate is \$1.50 per cubic yard removed, and the NRCS can calculate the volume and stake off the excavation zone, says Burks.

For example, deepening of a pond by an

average of six feet (two yards), over an area of say, 50 yards in length by 30 yards in width, would yield an excavation of 3,000 cubic yards (2 deep x 50 long x 30 wide = 3,000 c.y.). At \$1.50 per cubic yard, the cost to renovate that pond would be about \$4,500. Under dry conditions, a good dozer operator can move about 100 cubic yards in an hour, or about 1,000 per day. So in this example, the operator should be able to complete the job in about three days, given good weather.

The excavated soil should be sloped, smoothed and shaped away from the pond. This will prevent the unprotected soil from going back into the pond soon after the project is completed. After all the earthwork is done, topsoil should be replaced and grass should be re-established on the excavated soil and new pond banks. Burks recommends sprigging or seeding bermuda grass in the growing season, and rye or wheat can be planted to temporarily stabilize pond banks in fall and winter. If the bank is left bare, the pond water will be muddy.

Dams can be refurbished during dry spells or when the water is up. All dams wear with age, particularly if cattle are allowed to graze on them, and they may need to be re-dressed occasionally. Rip-rap can be placed on larger dams if wind and wave action is eroding the face. It's also a good idea to add some rock to the spillway (the area where water leaves a pond around the dam), to prevent erosion or wash outs in floods. A concrete or rock drop-wall at least one foot high can be built to prevent rough fish from swimming upstream into the pond when water is flowing out.

If your pond leaks or seeps, then clay (often called bentonite) can be added and packed in the pond bottom to seal it while the water is low. It's not a bad idea to have trees removed from an old pond dam while work is in progress - but be careful. Water likes to follow the channels of rotted tree roots through a dam. If trees are removed, a new layer of clay should be packed along the dam face to prevent leakage. As part of a regular maintenance program, pond owners should cut trees on pond dams before they grow large enough to cause that kind of trouble.

To limit aquatic vegetation in ponds, fisheries managers recommend a bank slope

continued on next page



Having trees on your pond dam can be a serious problem. It's not a bad idea to remove them when renovating your pond, but be careful. Water likes to follow the channels of rotted tree roots through the dam, causing the backside of the dam to slide.

of 3 to 1 below the water line, around at least two-thirds of the pond edge. That is, for every three horizontal feet from the bank, the bottom should drop vertically by one foot. If waterfowl are the target, then a significant portion of the pond should remain shallow when it's rebuilt. Generally though, pond owners should keep in mind that ponds filled with weeds don't make good fishing ponds, and don't provide as much volume for cattle during droughts.

Renovation of an old pond isn't always the best answer, added Burks. "Sometimes, it costs less to find a dam location up or downstream and build a new one, instead of excavating the old one," she said. "We like to use old ponds as silt traps above new ones."

The NRCS estimates that it has assisted

in the construction of about 250,000 farm ponds in Oklahoma, and landowners have built thousands more on their own. All of those ponds are in a constant state of aging (some faster than others) and renovation is an option to consider, particularly during prolonged dry spells that are all-too-common in Oklahoma.

Working in the Wet

When ponds are full of water, some landowners are tempted to deepen them with other kinds of equipment. Draglines and track-hoes can be used from the bank, but they're more expensive by the hour, and are less efficient since they move both water and mud, all in one motion. It's more difficult to estimate the quantity of soil removed, and therefore harder to estimate cost versus value.

If you can do without the water, it's easy to lower a pond with a temporary syphon. Using hard plastic tubing or other pipe from 2 to 4 inches in diameter (depending on the size of the pond), a pond owner can partially drain a pond if it doesn't rain for a few days.

Lay out the tubing from the deep part of the pond, over the dam, to a low grassy area below. Then cap the lower end of the pipe, fill it partially with water from the upper end, lower the tube into the pond, then remove the cap at the lower end. If there are no air leaks in the pipe, gravity should send a steady stream over the dam. To stop the process, just lift the pond end of the pipe above water level. Even after water is removed, it can take several weeks for the pond bottom to dry to the point that a bulldozer can get in and out without getting stuck.

What Do *You* Want

Your Side of the Fence is published three times a year as a free publication for Oklahoma landowners. It is our mission to provide practical information for managing wildlife on your property and address issues that affect you, the landowner. Nowhere else can you receive helpful, in-depth information from experienced biologists and law enforcement officers who work in all corners of the state. With so much knowledge and insight at our disposal, we strive to provide you with information we think you may need. But, sometimes we do not address the management issues you want to know more about. So this is your opportunity to tell us what you think. What would you like to learn more about? Do you have any questions for any of our ODWC professionals? Are we doing a good job of providing useful, practical information? Please let us know. If you would like, provide any comments below and send in your advice to the editor. Send to:

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