



Turning Pointe Donkey Rescue

Quarterly Newsletter
Spring 2007

Manure and Water Don't Mix By Jane Herbert MSUE District Water Quality Agent

What's the big deal about horse manure? Why are our neighbors so concerned about the manure from our horses getting into surface waters and groundwater? There are several reasons why manure and water don't mix. Because they spend so much time around it, horse owners may not consider that horse manure contains pollutants and, under the right circumstances, can pose a threat to humans and the environment. A source of nutrients such as nitrogen and phosphorus, horse manure may also contain pathogens (including *E. coli*) that can be hazardous to human health. When manure is not managed properly, these contaminants can make their way into our water and cause problems.

Groundwater: Most rural Michigianians get their drinking water from groundwater wells. Light-textured soils make these drinking water supplies vulnerable to contaminant leaching. Excess nitrogen (nitrogen not used by plants) enters groundwater as nitrates, which have been linked to health problems in infants and the elderly. Horse manure that is piled up and left indefinitely or spread too heavily can leach nitrates to drinking water. Additionally, manure that washes overland and comes into contact with drinking water wells (Figure 1) can leach down around well casings, transporting both nitrates and pathogens to groundwater.

Surface water: The flip side of the groundwater issue is manure entering surface waterways, including lakes, streams, ponds, drains, ditches and wetlands. Horse access to waterways should be controlled to prevent damage to stream banks and shorelines. Hoof traffic compacts the soil, disturbs vegetation, and increases erosion and runoff. Restricting access also reduces the opportunity for "direct deposit events" (Figure 2). The primary concerns about manure runoff are phosphorus loading, dissolved oxygen (DO) levels and increases in biochemical oxygen demand (BOD). We'll explore these one at a time.

Phosphorus — This naturally occurring element is the limiting factor for aquatic plant growth. That means that, in healthy aquatic ecosystems, this natural plant food is present in very small amounts, limiting plant and algae growth. When excess phosphorus enters the system, it can quickly cause overgrowth. This can lead to nuisance plant communities that reduce the recreational and aesthetic value of the waterway and put stress on aquatic ecosystems (see below). The main sources of phosphorus loading from horse operations are manure runoff and soil erosion. Phosphorus chemically binds to soil particles — when soil moves, so does phosphorus.

Dissolved oxygen — Fish and other aquatic critters need certain levels of dissolved oxygen (DO) in the water to breathe. Some fish, such as trout and salmon, require higher DO levels than others, such as carp and catfish. During the day, aquatic plants and algae undergo photosynthesis and generate dissolved oxygen. Problems start at night, when these same plants undergo respiration and take up oxygen, lowering DO levels. Nuisance plant and algae overgrowth can create major fluctuations in DO, stressing and even killing fish.

Biochemical oxygen demand — Naturally occurring aerobic bacteria act as waterway scavengers, constantly breaking down waste and organic matter in the water. But when a large and sudden amount of organic matter enters surface water, it can cause sharp increases in biochemical oxygen demand. This means that when manure, bedding and/or horse feed enter a pond, lake or stream, these scavenger

bacteria multiply very rapidly to clean up the mess. Their need, or demand, for oxygen also increases rapidly, and suddenly the bacteria are competing with fish for oxygen. If the bacteria win, the result can be a quick and extensive fish kill.


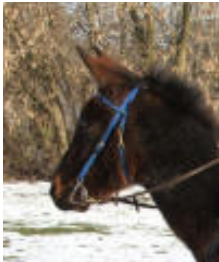
By now, you may be saying, "OK! Enough with the science lesson! How do I know if I'm doing a good job managing my horse manure? If I'm not, what kinds of changes should I make?"







To answer these and other questions visit the MSU Equine Extension "One Horse or a Hundred "series at <http://www.canr.msu.edu/horseadults/index.html?url=publications/publications.html>. The articles contain useful information on managing manure to protect the environment, improve your pastures and gardens, and keep your neighbors happy.

- Thanks to all who have new donkeys in their barn. We are deeply appreciative of all the new, and forever homes of our donkeys!

Adopter	Donkey's Name
Mari-Beth Dickerson	Russ and RJ
Jeff and Sue Grabber	Melissa

- Thanks to all the volunteers who make TPDR a success! As our list of supporters continues to grow, it becomes increasingly difficult to acknowledge everyone. Hence the TPDR board has decided to discontinue this section of the newsletter. However, we still greatly appreciate everyone's help for without you there would be no rescue!
- Donkeys available for adoption:
To see if your favorite donkey is still available for adoption, visit us at our website www.turningpointedonkeyrescue.com or at www.petfinder.com

Donkey name's	Pertinent comments
<p>Monty</p> 	<p>Monty is a 4 year old small standard gelding, recently rescued from an animal sale. He and his friend Winchester were both in the kill pen after their owner refused to pay for coggins tests on these great boys. Both donkeys have since been tested by TPDR and are negative. Monty is a quick learner and needs a home with someone interested in spending a little time teaching this great boy the basics. He has been in training at his foster mom's for the past two months and is very cooperative with everything that has been asked of him. Monty will make a great companion for another donkey and is very willing and eager to learn new things. If you are interested in giving Monty a new home, please contact Sharon Windsor at 517-623-0000 or: email akaminidonkeys@michcom.net</p>
<p>Chester</p> 	<p>Chester is a lovable little mule with a great big heart. He has been started under saddle by Marirose Six. He is very willing and eager to please. Chester has been on the trails, thru water, along roads, woods, etc. He's been ponied, ridden in groups and alone. He has wonderfully smooth gaits. He will be a nice saddle mule for a kid or small adult who knows how to ride. He will test you simply because he is young and green. If you are interested in Chester please cont Sharon Windsor at 517-623-0000 or: email akaminidonkeys@michcom.net</p>

<p>Nora and Niki</p> 	<p>Nora is a 5 year old gray dun jennet standard and Nikki is her 3 year old daughter, a gray dun smaller standard. These two girls came to us due to an illness in the family of their previous owner. They MUST be adopted together! Handled since birth, these two girls are perfect for the farrier and are just great with small children and adults alike. They would excel in a therapeutic riding program or just about any type of rehabilitation program as they have had the owner's grandchildren led around on them and been handled and loved very much! These are two very gentle and loving jennies. If Interested, contact Robyn Haney at 269-598-8822 or e-mail her at: bkwrdcowgri@gmail.com</p>
<p>Marty</p> 	<p>Marty is a 5 year old gray dun standard donkey gelding who is a very attractive guy! He is young, ready and willing to start learning more. Marty already ties, leads well and is good with front foot trimmings! He's kind of a shy guy, but once the petting and brushing starts, he's all about it! Marty was adopted awhile back as guardians for a large flock of sheep, but Marty proved to be a bit too aggressive with the woolies so he came back to TPDR. He will make an excellent companion for other equines. If you are interested in giving Marty a home or have additional questions about him, contact his foster mom Toni Jones at 269-792-1438 or e-mail her @ boyzbulldogs@yahoo.com</p>
<p>Jill</p> 	<p>Jill is a shy, mature, grey, standard jennet that is about 7 years old. With the quiet kindness that she has received in her foster home, she is becoming as much of a treat-demander. Nevertheless, she needs someone with plenty of time, patience and an understanding of equine behavior. Jill ties, loads and leads, but continues to work on her confidence when being led in new settings or having her feet handled. Jill gets along well with other donkeys and would make a wonderful companion for another donkey or horse. For more information, contact Tia at 810-797-2229</p>
<p>Winchester</p> 	<p>Little Winchester is a high stepping, adorable little brown gelding standard. He doesn't seem to have been abused as much as neglected. When he arrived at his foster home, he didn't know much about humans and was extremely shy, but he is losing that shyness after some time at his foster farm. He definitely needs a home where he will be given lots of attention. He is learning the basics right now and does quite well as long as he is not overwhelmed. For more information, contact Sharon at 517-623-0000 or email akaminidonkeys@michcom.net</p>
<p>Mr. Fips</p> 	<p>Mr. Fips is about 1 year old at this time. As he just came to us, he was just gelded and is learning to lead, stand tied, and other lessons all these youngsters must know. He should mature at about 38 inches. For more information, contact Sharon at 517-623-0000 or email akaminidonkeys@michcom.net</p>
<p>Oh Sue</p> 	<p>Sue is a lovely roan molly mule that both rides and drives. An absolute sweetheart. Not sure on age, she is not real old, but not a baby so that puts her somewhere in between. A perfect lady to trim, tie, load tack up and harness. Her disposition is flawless. A few cobwebs to dust away as she has not been used for a while, but she is very kind and gentle. If Interested, contact Robyn Haney at 269-598-8822 or e-mail her at: bkwrdcowgri@gmail.com.</p>

- Do you have a desire to help and have some extra time?
 - Are you a great organizer with some extra time? There are always things to be done! Contact Sharon at akaminiaturedonkeys@michcom.net
- What a Rescue is all about!



A rescue is not just about placing an animal in an appropriate home initially. It is essential that the rescue be there for both the adopters and the animal for the duration of the animal's life. TPDR provides support for the adopter regarding all aspects of health and management issues, general education about donkeys and re-adoption when the situation arises. In life, there are no guarantees and unexpected situations arise often without warning. Hence, Conrad and Paco are again looking for a forever home!

Conrad and Paco were adopted together 15 months ago, and have had the most wonderful home, until a very short time ago when personal circumstances at their home forced their owners to return them to TPDR. Their owners were devastated to lose these two, but personal reasons dictate that they must find new homes for these two gorgeous boys. Conrad and Paco must be adopted as a pair! Their last home was a very caring one and their next one must be as well. Conrad is a 4yr old black standard gelding. He has very heavy bone and a wonderful temperament. We can't say enough nice things about this big guy, shhh, don't tell the others, but he's definitely a favorite! Conrad is inquisitive, curious, and super friendly. Conrad loves treats, leads and is confident enough to be a wonderful companion for horses. He'd love to keep company with any equine and will make some lucky family a wonderful pet. Paco is a 5yr old red roan standard donkey gelding. He came from St Johns auction and someone has definitely worked with this boy before. He is pretty good for leading and even accepts people on his back for riding, though we don't think he's been trained for it. He's a favorite with the kids and lets them hug him all over and even hang onto his legs. Paco is the first one up to you in the pasture and he just adores people! If you are interested in giving Conrad and Paco a new home please contact Sharon Windsor at 517-623-0000 or email her at: akaminidonkeys@michcom.net