The Geronimo Flow

February 2014

Your Newsletter

The Geronimo and Alligator Creeks Watershed Partnership was formed in 2010 to restore and protect water quality in the Geronimo and Alligator Creeks Watershed due to elevated levels of bacteria and nitrate-nitrogen. The Partnership completed a Watershed Protection Plan in 2012 and is now working toward full implementation. The purpose of this newsletter is to inform and engage local stakeholders in helping to improve and protect the quality of water in Geronimo and Alligator Creeks. For more information about the project visit our website: www.geronimocreek.org

Second Annual Clean Up Event

Planning is in full swing for the second annual Geronimo and Alligator Creeks Clean Up event. The event is scheduled for Saturday, April 5th from 9 am till noon, and volunteers can meet at either the Navarro High School parking lot, Parker Lumber Supply parking lot, or the New Braunfels Regional Airport for free breakfast tacos, event T shirts, supplies, and instructions to local clean up locations. An online registration form is available, and we ask that you register in advance in order for adequate supplies to be made available for the event.

Last year's event involved over 100 volunteers cleaning up 8 locations for a total of nearly 3,000 pounds of trash and debris removed from the creek area. Materials collected last year ranged from typical roadside trash like food wrappers, cans, and bottles to large items such as a stove and air conditioner, tires, rolls of carpet, and ironically, a toilet. This year's event is looking to be even bigger and better.

Individual citizens are becoming involved as well as volunteer teams forming from Alamo Group, Continental, HEB's Seguin store, King Ranger Theater, Seguin High School, Spirit of Joy Lutheran Church, TLU, Parker Lumber, and others.

Sponsorships are available, which will go towards advertising, food, and supplies. All financial

In this issue:

The Alamo Group employee team at the 2013 Clean Up.

Volunteers unloading trash removed from the creeks during the 2013 Creek Cleanup Event.

contributions will stay local. If you are interested in being a sponsor, click here to be taken to the information page. Sponsors will be noted in press releases, and depending on level of contribution, can have their name and logo printed on the special event T-shirts. Sponsoring does not have to be a financial donation, but can take the form of a donation of needed supplies (gloves, bags, etc), breakfast food, bottled water, or other necessary items.

To register, click here and for more information visit the project webpage, or contact Ward Ling at 979-845-6980 or wling@ag.tamu.edu

Welcome Joe McIntosh

Joe McIntosh is a newly hired District Technician for the Comal-Guadalupe Soil and Water Conservation District (SWCD). The SWCD was awarded a grant from the Texas State Soil and Water Conservation Board to hire a technician who can assist farmers and ranchers in developing Water Quality Management Plans (WQMP) for their individual operations. The grant also provides financial incentives to help producers implement approved practices.

Nutrient and bacteria loading from agricultural operations are identified in the Geronimo and Alligator Creeks WPP as potential sources of pollution in area creeks. A site specific WQMP is developed by working with a land owner to identify, design, and implement practices that will protect water resources. The plan includes appropriate land treatment practices, production practices, management measures and technologies. Examples of key practices include prescribed grazing, fencing, watering facilities, pipelines, wells, grassed waterways, pasture/hayland/rangeland planting, riparian buffers, filter strips, and others.

There is no cost to the landowner for development of the WQMP. However, there may be costs for implementing certain practices, but financial assistance is available in most cases.

If you need assistance or are interested in learning more, you can contact Mr. McIntosh at (830) 379-0930 x107, or stop by the office at 3251 N. Hwy 123 Bypass in Seguin.

National Groundwater Awareness Week March 9 -15

Just as you check your furnace or smoke detector batteries seasonally, spring is a good season to have an annual water well checkup before the peak water use season begins, according to the National Ground Water Association (NGWA).

An annual checkup by a qualified water well contractor is the best way to ensure problem-free service and quality water, says the NGWA.

Also, preventative maintenance usually is less costly than emergency

A 1 hour training session for private water well owners is scheduled for April 9, 2014 in San Marcos. This is an opportunity for well owners to have their water samples screened for fecal coliform bacteria, nitrates, and high salinity. Go to http://twon.tamu.edu/well-informed/ for more information.

maintenance, and good well maintenance — like good car maintenance — can prolong the life of your well and related equipment. NGWA further recommends you test water whenever there is a change in taste, odor, or appearance, or when the system is serviced.

Wells can provide high-quality drinking water, and about half the U.S. population receives its drinking water from wells. But with well ownership comes the responsibility of keeping the water well in good working order. A check of your well by a qualified water well contractor may include:

- A flow test to determine system output, along with a check of the water level before and during pumping (if possible), pump motor performance (check amp load, grounding, and line voltage), pressure tank and pressure switch contact, and general water quality (odor, cloudiness, etc.).
- An inspection of all well equipment to assure it is sanitary and meets local code.
- A test of your water for coliform bacteria and nitrates, and anything else of local concern. Other optional tests are those for iron, manganese, water hardness, sulfides, and other water constituents that cause problems with plumbing, staining, water appearance, and odor.

NGWA also recommends that well owners:

- Keep hazardous chemicals, such as paint, fertilizer, pesticides, and motor oil far away from your well, and maintain a "clean" zone of at least 50 feet between your well and any kennels and livestock operations.
- Maintain proper separation between your well and buildings, waste systems, and chemical storage areas.
- Periodically check the well cover or well cap on top of the casing (well) to ensure it is in good repair and securely attached. Its seal should keep out insects and rodents.
- Keep your well records in a safe place. These include the construction report, and annual water well system maintenance and water testing results.

For more information, visit the NGWA website:

http://www.ngwa.org/Pages/default.aspx

or the Texas Well Owner Network website:

http://twon.tamu.edu/

If you want to have your water tested, it is recommended that you use a National Environmental Laboratory Accreditation Conference (NELAC) certified lab, such as the GBRA Regional Lab in Seguin. Click here for a listing of NELAC accredited labs in Texas. For pricing information for your private water well samples at the GBRA lab, go to http://www.gbra.org/lab/drinkingwater.aspx

Do you have something you would like to contribute to the newsletter? Or, would you like to see us provide information on a particular topic? Suggestions can be sent to Ward Ling at wling@ag.tamu.edu or call 979-845-6980.

Newspaper Articles

In our continuing effort to increase public awareness and involvement in implementing the Geronimo and Alligator Creeks WPP, we began publishing monthly educational articles in the Seguin Gazette and New Braunfels Herald-Zeitung last year. With funding from the Texas State Soil and Water Conservation Board, the plan is to provide local readers with information about the watershed and water quality concerns, and recommendations on how to better manage potential sources of pollution such as bacteria and nutrients. So far, articles have touched all three potential pollution source categories: urban, agriculture, and wastewater nonpoint sources. If you have missed any of these articles, you can access them from the project webpage under the Newsletter tab. Through this process, we hope to reach and engage a broader audience across the watershed.

When you see these news articles, please be sure to pass them on to friends and neighbors!

Septic System Workshops

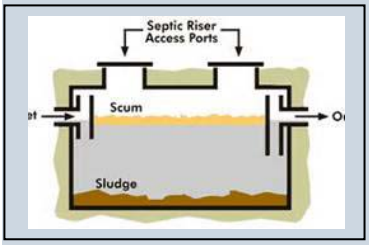
The second round of Homeowner Maintenance Septic System workshops is scheduled for April 28th and 29th. The first classes offered in November of last year were so successful that we are bringing them back with a variety of classes to best fit your needs.

The class on Monday, April 28th runs from 6 pm to 8 pm at the GBRA River Annex at 905 Nolan Street in Seguin and will cover basic operation and maintenance for conventional and aerobic systems, as well as explaining how activities in the home impact septic systems. This 2-hour course provides answers to the most frequently asked septic system questions, including when to pump out a tank and what can and cannot go down the drain.

The class on Tuesday, April 29th runs from 8:30 am to 3:30 pm at the NBU Service Center, 355 FM 306 in New Braunfels. This class will cover much of the same material as the 2 hour class, but will go into more depth on aerobic system operation and maintenance.

The classes are free, however seating is limited. Contact Ward Ling at (979) 845-6980 or wling@ag.tamu.edu to make your reservation.

For more information about septic systems, visit the project webpage septic system tab for helpful fact sheets and for a link to the online modules that cover proper operation of septic systems and factors that can contribute to system failure.



Pumping out a septic tank should be a regular part of your maintenance activities.

Smart Growth Workshop

A Smart Growth Workshop has been scheduled for Tuesday, March 25th from 8:30 am to 3:00 pm at the GBRA River Annex at 905 Nolan Street in Seguin. The goal of the workshop is to help decision makers minimize the impacts of nonpoint source pollution in their communities.

Topics addressed in the workshop will include:

- Linkages between land use types, water quality, and community character.
- Reducing storm water runoff volume and improving water quality through use of Low Impact Development (LID) techniques such as use of permeable pavements, rain gardens, vegetated swales, "curbless" streets, and others to enhance flood control.

The workshop will be a combination of in-class presentations and outdoor demonstrations.

Dr. Fouad Jaber, Texas A&M AgriLife Extension Specialist in Integrated Water Resources Management, will explain how different Smart Growth techniques can help mitigate the harmful effects of urbanization on stormwater volume and water quality. The workshop is hosted by GBRA and AgriLife Extension as part of implementation of the Geronimo and Alligator Creeks Watershed Protection Plan.

The workshop and catered lunch are free, however, capacity is limited and you are asked to register in order to reserve your seat. Also, please feel free to pass this invitation to others who might have an interest in attending.
If you have any questions about the workshop or want to register, contact Ward Ling at 979-845-6980 or wling@ag.tamu.edu

Lawn Fertilization

Fertilizer Selection

To grow properly, all plants need essential nutrients. Those that are typically needed in the greatest amounts are nitrogen, phosphorus, and potassium. While many different types of fertilizers are sold, the best fertilizer for your lawn is the one that contains the ratio of these nutrients recommended by your soil test results. Remember that each different area (lawn, garden, flower beds) needs a separate soil test.

All fertilizer packages must have a label indicating the nutrient levels the product contains. The numbers listed—known as the guaranteed analysis—represent the percentages (by weight) of primary nutrients (nitrogen, phosphorus, potassium), secondary nutrients (calcium, magnesium, sulfur) and micronutrients (boron, copper, iron, manganese, zinc) in the fertilizer. Some bags display the primary nutrients in large numbers separated by a dash, such as: 15-5-10. This indicates the product contains 15% nitrogen, 5% phosphorus, and 10%

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potassium. However, it is always important to carefully read the full written label to know and understand all the product contains. Label information will allow selection of the best product and enable calculation of the appropriate rate of application.

Depending on the soil type and fertilization history of an area, some soils already may have an adequate supply of some nutrients. Soils often have a natural supply of many nutrients due to the minerals they contain, such as calcium, magnesium, and potassium. Routinely fertilized lawns and gardens often accumulate phosphorus over time. Thus, fertilizers should be carefully selected to provide only those nutrients that are recommended by the soil test. Excess levels of some nutrients, particularly nitrogen and phosphorus, can create nutrient imbalances in the soil that are harmful to plants. In addition, excessive nutrient levels in the soil can move off lawn, landscape, and garden areas in runoff and pollute area creeks and rivers. Elevated levels of nitrogen are a concern in Geronimo and Alligator Creeks, and fertilizer is one of the potential sources.

Soil test results include a recommendation for the number of pounds of each needed nutrient to apply per 1,000 square feet. The number of pounds of fertilizer needed will depend on the product's guaranteed analysis and the recommended application rate. For example, if your soil test recommends applying 1.0 pound of nitrogen per 1,000 square feet and the fertilizer bag nitrogen analysis is 15%, then you would apply 6.6 pounds of fertilizer per 1,000 square feet (1.0/ 0.15 = 6.6). Alternatively, if the nitrogen analysis on the fertilizer bag is 29%, 3.4 pounds of fertilizer would be needed per 1,000 square feet to achieve the 1 pound of nitrogen applied. As you can see, the nitrogen content of the fertilizer greatly influences the rate of application. For more information, and access to a rate calculator go to http://aggie-turf.tamu.edu/answers4you/fertilization.html.

Calculate the Total Amount of Fertilizer Needed

To determine the total amount of fertilizer needed for each management area (yard, beds, garden), the size of each area must be calculated. For example, if your lawn is square or rectangle in shape, simply multiply the length times the width to determine total area (e.g., 30 feet x 50 feet = 1500 square feet). Be sure to subtract out all non-vegetated areas (sidewalks, driveway). If your lawn is odd-shaped, you may need to divide it into sections, calculate the square footage of each, and add these together. Keep and use the calculations for each area to determine the amount of fertilizer that will be applied there.

Divide the total square feet for a management area by 1,000, then multiply that number times the pounds of fertilizer needed per 1,000 square feet. For example, for a 5,500 square foot lawn requiring 6.6 pounds of fertilizer per 1,000 square feet approximately 36 pounds of fertilizer will be needed for the entire lawn (5,500/1,000 = 5.5; then 5.5 x 6.6 = 36.3 pounds of fertilizer). If the front yard represents 2,500 square feet then 2.5 x 6.6 = 16.5 pounds of the fertilizer will be applied there. The remaining 19.8

Upcoming events

- ***Smart Growth Workshop March 25 from 8:30 am till 3 pm at the GBRA River Annex.***
- ***Second Annual Geronimo and Alligator Creeks Clean Up on Saturday, April 5 from 9 till noon.***
- ***Homeowner Maintenance of Septic Systems Workshops April 28 and 29.***
- ***First Feral Hog Workshop in the Alligator and Geronimo Creeks Watershed May 23 at the Big Red Barn in Seguin.***

pounds (36.3 – 16.5) will be applied in the other yard areas.

Spreader Adjustment

Poor fertilizer distribution due to an improperly adjusted spreader is a common problem, and can result in uneven color, poor plant growth, and water pollution. There are two options to ensure proper application rate. The simplest method is to reduce the spreader application rate to a low level that will require several passes (3-4) across the area. Make alternating passes perpendicular to each other to ensure uniform distribution. The second and most accurate option is calibrate the spreader using catchments to capture samples of test passes. Adjust the setting on your spreader to apply fertilizer at the recommended number of pounds per 1,000 square feet. This can be difficult to determine sometimes, depending on the spreader manufacturer. If you are having difficulty determining the rate, a detailed description of this method can be found at http://aggie-turf.tamu.edu/aggieturf2/calibration/calibration.html. Alternatively, some companies provide spreader settings that match their products. Remember, different management areas may require different fertilizers and proper spreading rate must be considered for each one.

Application Timing

The best time to fertilize depends on the type of plants that will be grown. In most all cases, it is best to wait to fertilize until the plants are actively growing and able to use the fertilizer. For warm season lawn grasses, the first nitrogen application should be made after the grass has greened up and has required mowing at least two times. If you fertilize too soon, you'll just be feeding the weeds and wasting fertilizer.

A few final words of advice: don't fill the spreader while on the lawn—spills can burn the grass; always be moving when you open the spreader gate and close the spreader gate when making sharp turns to avoid over application; sweep up any over-spread that lands on sidewalks or driveways; and, don't apply right before a rain—heavy rainfall can wash the fertilizer off your landscape and into the storm drain and creek.

Next Partnership Meeting

The Geronimo and Alligator Creeks Watershed will not meet this quarter, but instead invites everyone to participate in the Second Annual Geronimo and Alligator Creeks Clean Up on Saturday, April 5th from 9 am till noon. Come out for a great time of community service, free breakfast tacos, supplies, and special event T-shirts. Your contribution of time and energy will result in cleaner creeks and a good feeling inside.

Be sure to use the online registration form in order for us to plan accordingly.

Come find out how you can get involved. We hope to see you there! For more information contact Ward Ling at 979-845-6980 or wling@ag.tamu.edu