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NSTC/Farmtec

There is a lot of concern brewing today over the wastewater created when we wash our golf course equipment or golf carts. The concern is a valid one. In today's "environmentally correct" atmosphere, we all need to keep one eye on the ball, and the other eye on our potential environmental liabilities.

The subject of proper handling of our waste products, whether they be used oil, tires, batteries or filters, spent solvents, or wastewater, can be a convoluted issue. Sometimes there is no simple solution.

In this article, I will address the wastewater issue, and hope to impart to you a basic understanding of what's happening in the regulatory arena, and some possible solutions. I hope you will be able to use this information so that you can prepare and comply now, and not wait for the non-compliance axe to fall.

The Federal EPA has a set of laws called the Clean Water Act (CWA) and the Federal Water Pollution Control Act (FWPCA). These acts are the framework for a

standards and permitting program designed to prevent pollution of our precious ground and surface water resources. The standards and permitting program goes by the name National Pollution Discharge Elimination System, or NPDES. In California, the NPDES is referenced by the California Water Code, Title 23. The NPDES

monitoring

- ◆ Prohibition of non-point source discharge to storm-water
- ◆ Underground Storage Tank (UST) monitoring and clean up
- ◆ Higher sewer use taxes to pay for stricter discharge limits achievements that apply to the sanitary sewer districts.

And the list goes on. The various aspects of these programs are administered by a variety of municipal, special district, and county agencies, however, they all eventually answer to the state of California through RWQBC. Therefore, if you need to find out which agency you should be talking to about a specific issue, one call to the RWQBC in Oakland at 510/286-1255 should steer you in the right direction.

## Environmental Compliance

Now, on to the equipment washing issue.

**Q** *How is equipment or golf cart washing a pollution producing issue?*

**A** In most golf course applications, the wastewater created by equipment or golf cart washing will create a wastewater that has relatively little "pollution" in it. One might find these pollutants in trace amounts: hydraulic oil, motor oil, grease, fuel residues, organic matter (grass clippings), fertilizer and pesticide residues, trace metals of concern (Pb, Cr, Cd, Cu, Zn) and chlorinated or hydrocarbon

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and the State Water Code are monitored and enforced through a collection of regional boards called the Regional Water Quality Control Board, or RWQBC. The NPDES program is very far reaching and it is responsible for a multitude of water resources protection and remediation projects, like:

- ◆ Stormwater regulation and

- ◆ Prohibition of discharge directly into the ground
- ◆ Industrial discharger requirements for pre-treatment systems that clean their wastewater before it leaves the facility
- ◆ Prohibition against any water discharge that would have a detrimental effect on any "beneficial use water"



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**ENVIRONMENTAL COMPLIANCE**

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solvents. What is in the water is interesting, but what you do with this water is the larger issue. There are basically four likely paths that this water may take when you wash your equipment. They are:

**1. Allow the wastewater to discharge into an injection well.**

This approach is no longer acceptable. The problem is that any pollutants contained in this wastewater will eventually reach the ground water supply. The State of California, Title 23, Water Code prohibits anyone from impacting beneficial use waters with pollution.

**2. Let the wastewater discharge into the storm drain or a creek or river, etc.**

This approach is no longer acceptable. The problem is that the pollutants will again "impact beneficial use water" and as such is prohibited under Title 23, Water Code.

**3. Let the wastewater discharge into the sanitary sewer which goes to the sewage treatment plant.**

This approach may make a lot of sense. There are allowable pollution discharge numbers that will apply. Typically, the discharge to sanitary sewer allowable limits range from 0.3ppm on Cd to 100ppm on petroleum oils. This is based on the Contra Costa Sanitary Dist-

ric's allowable industrial discharge limits. These discharge limits will vary only slightly from district to district or region to region. These limits are rarely, if ever, exceeded by the typical golf course operation. However, there are exceptions: If the batteries of a golf cart are washed directly, the allowable discharge number for lead (Pb) of 0.5ppm would most likely be exceeded. There are other practices that may cause pollution "spikes"; each operation is different.

If you intend to go the route of sanitary discharge, it would be wise to discuss your intent with your local Sanitary District before you hook up. There are a variety of permit fees and mechanical requirements that will apply; some district policies are costly; some, are not. And if I only had a crystal ball, maybe I could tell you if the allowable pollution discharge numbers for sewage authorities will come down in the near future or not. Probably will...

**4. Employ some type of wastewater treatment/recirculation system.**

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**WELCOME TO THE GREEN**

Welcome to the following new GCSANC members:

**Bob Boldt**

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Aetna Springs GC  
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**Lisa Maule**

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**Jeff Roberts**

Blackhawk CC  
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**Dana Waldor**

Hidden Valley Lake G&CC  
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Incline Village Golf Resort  
Class A

*Applications have been approved for membership for the listed classification pending the 30-day waiting period, verification of status, or passage of any required tests.*



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**NAUMANN'S NORCAL NEWS**

**Chris Gose** has elevated to the position of Senior Groundskeeper for the City of Sunnyvale. Chris is in charge of the maintenance operations at the city's two golf courses: **Sunnyvale Muni** (18-hole) and **Sunken Gardens** (9-hole), which are approximately five miles apart. Chris was working for the City of Sunnyvale at the Muni prior to his promotion... With **John Lloyd's** recent retirement from **Marina Golf Complex** in San Leandro, his

assistant **Ken Schwark** has assumed the position of Superintendent... **Mike Phillips**, Superintendent at **Almaden Country Club**, is in the middle of rebuilding greens and putting in new cart paths... **Brian Bagley**, Superintendent at **The Villages G & CC** in San Jose, has recently completed rebuilding and lining all nine lakes on the golf course. **Cook and Solis** of Escondido was the contractor.

**FYI***Continued from page 5*

In addition to food and beverage, meeting rooms, golf and education, there are other costs that must be covered on a monthly basis. For these additional fees are assessed as follows:

- \$2.00 fee to cover administrative costs, ie: printing, envelopes, postage and me.
- \$3.00 for tournament prizes. This pays for the gift certificates for the tournament winners and can be redeemed at the pro shop of any course. Therefore, the money goes back to support the industry which employs you.
- \$2.00 goes directly back to the Scholarship and Research Fund maintained by the Association.

The monthly meeting locations and costs are dictated by the superintendents willing to allow the Association to use their facilities for our meetings. If you can offer your club at a lower cost, by all means, contact the Program Chairman Randy Gai, CGCS, or the Assistant Program Chairman, Bill Kissick, CGCS, and let them know you would like to contribute

to the Association by holding a monthly meeting.

**Environmental Compliance***Continued from page 4*

There are very few laws that affect you in this approach. The most significant ones would be the hazardous materials laws. Any treatment unit will produce some waste by-product -- dirty filters, waste oil, waste sludge or sediment. If the pollutant concentrations of this waste by-product are of a certain level or quantity, and if this waste by-product can be classed as hazardous, then the State Department of Toxic Substance Control will regulate you.

**BUYER BEWARE!**

Wastewater treatment is an applied science that has been around since the early 1940s. Most of the technology in use today has been focused at industry or government, not small scale. There have been many technological improvements in recent years that simplify the scaling down of these tried and true methods.

**FOR SALE**

**The Island Club Golf Course**  
**Superintendent Jim Adams** at 510/684-9580

1. 1990 John Deere 855 86" tractor mower; good condition; \$10,500 or BO
2. John Deere 280S 88" Fairway Aerifier/Slicer; little used; \$2600 or BO
3. Jacobson H-F 15-gang mower; many new parts, needs some work, \$2,300 or BO

**Employment Opportunity**

The Sharon Heights Golf and Country Club is seeking a qualified Assistant Superintendent. Requirements include a degree in Turfgrass Management, 3-5 years experience, and a Q.A.C. license. Compensation will be based on experience. Send resumes to:

Sharon Heights Golf and Country Club  
 2900 Sand Hill Road  
 Menlo Park, CA 94025  
 Attn: Ross Brownlie

In the golf course small-scale application there are a lot of choices, hardly a one of them alike. Some work better than others. One would have to take a college course in basic wastewater treatment technology to understand and appreciate the technological differences between the choices in

treatment equipment and the methodology.

In the next article I will explain in some depth the different techniques and technologies that are currently offered on the market for wastewater treatment and recycling.

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