

The City of Albany's *Biosolids Quarterly*



www.cityofalbany.net/biosolids

Winter 2007 Edition

Albany's Pretreatment Program - What Does it Mean for Biosolids Quality?

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Typical wastewater treatment plants (WWTPs) produce biosolids, an organically stabilized but beneficial waste product formed at the end of the treatment process. However, prior to the treatment process, biosolids quality can ultimately be affected by different types of pollutants in the waste streams entering the WWTP including metals, cyanide, volatile organic compounds, pH, and others.



Environmental Services Staff samples local industry waste.

Passage of the Federal Water Pollution Control Act by Congress in 1972 paved the way to establish the National Pretreatment Program whose primary goal is to reduce the amounts of pollutants discharged to publicly owned treatment works (POTWs) – a city's wastewater collection system that includes sewer pipes, pump stations, and the treatment plant itself. The Pretreatment Program as administered by the Environmental Protection Agency (EPA) requires all POTWs that process wastewater flows greater than 5 million gallons per day to establish a local program to meet pre-

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2006 Application Season

Total Acres: **377**
Total Dry Tons: **681**

The City of Albany's application season went as planned which left the storage bins empty as the winter rains arrived. Although with the rains coming in early November this year, the City is hoping the spring will offer an opportunity to get out on the fields earlier than normal.

The City applied on nearly 380 agricultural acres from Dever-Conner down to Crawfordsville with nearly 300 acres residing in the Tangent-Shedd area.

Once again, the City of Albany beneficially reused 100% of its biosolids produced from November 2005 to November 2006 as a nutrient rich soil amendment for local farmers.

The biosolids are primarily used on fields used to grow grass seed.

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treatment standards set forth in 40 CFR 403, the federal government publication regulating how these standards are achieved. For biosolids, the regulatory counterpart is 40 CFR 503 which addresses its management and application.

Much of Albany's Pretreatment Program focuses on area industries since their discharges are significant and can potentially have the largest impact on the POTW. Discharge permits are issued for those industries whose waste streams contain certain pollutants, are greater than 25,000 gallons per day, or can adversely affect the POTW. The discharge permit is a legal document tailored to the industry which governs how the industry controls pollutants in its waste stream. Through the use



Environmental Service Technician, Terri Ayres, checks the automated sampler from a city waste stream.

and enforcement of discharge permits, the POTW can reasonably expect to achieve the following goals:

- Prevent introduction of pollutants into the POTW which interfere with the operation, use, or disposal of sludge
 - Prevent introduction of pollutants which "pass through" or exit the WWTP as untreated waste
 - Improve recycling and reclamation of wastewater and sludges
- Two of the above goals directly relate to biosolids (also referred to as sludge) quality. To realize these goals, Albany's Pretreatment Program works with the permitted industries to ensure compliance and address any non-compliance issues or events that may occur, such as accidental spills. To successfully meet requirements stated in the permit, some of the following tasks must be performed by the permitted industry and/or the City:
- Continuously monitor waste streams for pH and flow
 - Periodic sampling and analysis of the waste stream
 - Inspections of the facility
 - Review of procedures used to control/contain accidental spills or discharges
 - Calibration and maintenance of monitoring equipment and other devices

- Submission of periodic reports, analytical data, and other documents

As part of the City's regulatory requirements through the Oregon Department of Environmental Quality, biosolids are also tested on a quarterly basis for regulated pollutants and must be below the EPA's clean sludge level. The City has set a goal of keeping biosolids pollutants at least 10% below this level. Albany's Pretreatment Program, though permitting and coordination with area industries, is an essential program that will help maintain a biosolids quality that will meet or exceed regulatory requirements set forth in 40 CFR 503. Preventing or limiting pollutants from entering the POTW at their sources (i.e., source control) achieves a higher degree of success.

DID YOU KNOW?

In 1972, only a third of the waterbodies in the United States were fishable/swimmable. Today almost two thirds are fishable/swimmable.

(Source: NJDEP)

The Pursuit of Platinum

In May, one year following the National Biosolids Partnership's (NBP) Certification of the City of Albany's EMS for biosolids, the City will be audited once again to achieve "Platinum Level" status for their EMS.

According to the NBP's Steering Committee, "The **Platinum Level**



designation represents the highest achievement of biosolids management and environmental stewardship." A Platinum Level agency has "been successfully certified and [has] successfully met the 'interim audit' requirements to maintain NBP certification in its EMS program."

There are currently ten agencies in the country that have reached this level of achievement. The City of Albany is confident that there will be no problems in achieving this milestone as well. In order to do so, the City must complete an "interim audit" which will concentrate on three elements of the EMS rather than the entire system with the idea to fine tune the EMS on a smaller scale.

"Interim audits" are to be conducted every first and third year followed by an audit of the entire EMS in year five. Once the City has achieved "Platinum Level" status, the City will strive to maintain that level by continuing to produce a quality product and managing their product as environmental stewards.



Tom's Garden Tips

With: Tom Krupicka

IT'S TIME TO PRUNE AND SPRAY

It's that time of year, just like clockwork, that homeowners, landscapers, arborists and orchardists alike take advantage of every dry day, climb trees and ladders to prune and thin their fruit, nut and flowering trees including both bush and climbing roses along with cane berry and grape vines as well.

It is also at this time of year that these same people apply winter dormant sprays to these same trees and vines to help guard against disease and insects that could cause havoc on fruits and flowers this next season.

Pruning is beneficial in several ways, pruning allows the grower to maintain a certain height to allow ease of spraying and harvesting. Most all growers and orchardists are getting away from what we call "standard" or large growing trees to reduce liability from falling off ladders and to make harvesting easier. Smaller home and lot sizes, new growing techniques and dwarf root stacks combines with trellising or growing on wires to have improved yields thus reducing the calls for the tall, older style of trees.

Pruning also allows homeowners and growers alike to remove dead, storm damaged or diseased wood that if left could further weaken a tree's structure and possibly result in failure or collapsing of limb or branches which could be a hazard.

Spraying throughout the winter months with what we call "DORMANT SPRAYS" which could be a combination of Lime Sulfur "Calcium Polysulfides" mixed with a spray oil and water or several different formulations of coppers or "Copper Hydroxides" and some form of sticker mixed with water are most commonly used.

We call these "dormant" sprays because they are sprayed during the dormant or winter, non growing, stage of the plants and are of a stronger formulation than those that we would normally spray during the spring and summer growing season.

Knowing what types of tree, shrubs and vines need to be pruned, when and how to prune each is all very important to know when it comes to the overall long term health and structural stability of the plant you are growing.

The proper pruners, handsaws and spray equipment will also help your job go smoother and easier and will result in less human damage to the plant you are trimming.

Please consult your local garden center or nursery professional, City Forester, local Extension office, or arborist for specific pruning or thinning techniques. Always check for overhead power lines before you prune or spray and contact your local power company before attempting any pruning around those trees.

Happy New Year!

For more information on *Pruning and Spraying*, general questions or concerns relating to your garden or to pick up any needed gardening supplies, visit Tom at "Tom's Garden Center" located at 350 NW Hickory St. in North Albany.

Construction on the City of Albany's new Wastewater Treatment Plant continues, though the rainy season has dampened ideal working conditions.



View of the new Chlorine Contact Chamber being erected on the North end of the treatment plant property.

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www.cityofalbany.net/biosolids



Join the Department of Animal Sciences and the Department of Crop and Soil Science June 1-2, 2007 in celebrating 100 years of excellence in education and outreach.

Centennial Celebration activities include:

- Family-friendly campus, community and local farm tours
- Golf Tournament at Trysting Tree Golf Course
- Educational workshops and live demonstrations
- Current student presentation, posters and displays
- Keynote lecture, Addresses by President Ed Ray and Dean Thayne Dunston
- Social reception(s)
- Special breakfast and luncheon events
- BBQ Social Banquet
- And more!

An evening series of 4 lectures will take place between January and May, 2007 followed by the main event on June 1-2. Details are available on the website at:

<http://cropandsoil.oregonstate.edu/alumni/centennial/index.html>



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postage

Check it Out

Clackamas County's Water Environment Services Department just produced a fantastic biosolids video. *"The Grass is Greener"*

You can find it on their website at:
http://clackamas.granicus.com/ViewPublisher.php?view_id=3#edu

Biosolids Quarterly is published quarterly by the City of Albany for the benefits of the Biosolids Program's *interested parties*. Please address all correspondence to **Public Works Department, 310 Waverly Drive NE, P.O. Box 490, Albany Oregon 97321-0144** or call **(541) 917-7600**. The City of Albany's website is www.cityofalbany.net

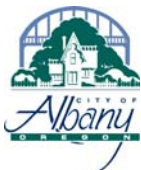
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The Oregon Department of Environmental Quality (DEQ) requires that the City test their biosolids each quarter for regulated pollutants. The City must remain below the United States Environmental Protection Agency's (EPA) Clean Sludge Level. Additionally the city has set as a goal to remain at least 20% below the federal clean level.

Units are measured in **mg/kg dry**

| Quarterly Biosolids Analysis | Cd | Cu | Pb | Ni | Zn | As | Se | Mo | Hg |
|-------------------------------|-----------|-------------|------------|------------|-------------|-----------|------------|-----------|-----------|
| November 14, 2006 | 1.8 | 428 | 43.5 | 19.9 | 967 | ND@5.0 | ND@12.5 | 22.4 | 1.8 |
| EPA Clean Sludge Level | 39 | 1500 | 300 | 420 | 2800 | 41 | 100 | 75 | 17 |
| % of EPA Clean Sludge Level | 5 | 29 | 15 | 5 | 35 | 12 | 13 | 30 | 11 |

EMS Goal 1, objective 1.3: Maintain biosolids 20% below EPA Clean Sludge Level. ND = Not Detected



The City of Albany is committed to maximum beneficial use of biosolids; compliance with all federal, state, and local regulations; open and meaningful communication with interested parties; and continuous improvement of the biosolids management process in accordance with the National Biosolids Partnership's Code of Good Practice.