



DPS is gearing up for winter season

By **Hassan A. Saab, Ph.D., P.E.**
Deputy Director, Wayne County DPS

Another summer has passed us very quickly and now we are gearing up our limited resources to provide another round of exceptional services for the coming winter season.

Our award-winning Department of Public Services (DPS) continues to excel in serving residents of Wayne County as highlighted in this edition of the DPS newsletter, including :

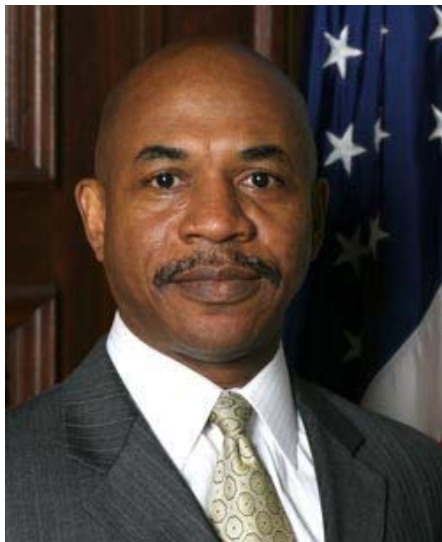
- The inclusion of 22 new snow plow units to our fleet with combination spreaders, and the introduction of anti-icing and pre-wetting procedures will enhance our ability to cover the entire interstate and state trunkline system as well as the county primary road system within 24 hours.
- Parks began the installation of annual lightfest displays. This great event runs from November 18 to December 31 (closed on December 25) and attracts thousands of visitors who enjoy the seasonal festivities.
- The Engineering division has completed another very successful road construction program, including a super size list of projects thanks to the federal stimulus fund. I am proud of the smaller number of project engineers and highway technicians who were able to complete this job successfully.

It is comforting to know that our salt domes are full and our mechanics are busy checking the department's fleet. We have revised the snow route plan and completed the winter maintenance operating procedure and communication plan which will be shared with our communities on November 17 at 10 a.m. in the Canton Township Hall located at 1150 Canton Center Road South.

Let It Snow !



Taking the waste out of wastewater



By **Butler Benton**
Deputy Director, Wayne County DPS

Wayne County owns and operates the second largest wastewater treatment plant in the State of Michigan. The term wastewater treatment facility is increasingly being changed to water reclamation facility, and for good reason. With the global focus on reduction of greenhouse gases and production of renewable energy, gems are being discovered in that dirty old wastewater. Extracting those gems, or reclaiming the valuable products within wastewater, is offering real promise for meeting water, heat and energy needs in a sustainable and environmentally friendly way.

Below are just a few of the developing processes and technologies that hold promise for our energy future:

Biogas – biosolids (the sludge contained in wastewater) can be processed to produce biogas, which is primarily methane. This biogas is then used to produce electricity using micro-turbines. This represents a truly sustainable source of energy, because as long as people exist, so will biosolids.

Phosphorus mining – the world has a finite supply of this very important mineral. That supply has been projected to only last 100 years based on current usage. Processes are being developed and implemented that can extract this finite mineral from wastewater. Those processes will increasingly gain traction as we continue to deplete this finite natural resource.

Water reuse – in this country we extravagantly use drinking water for many purposes that don't require water of such high quality. We wash our cars with drinking water. We water our lawns with drinking water. We even flush our toilets with drinking water. As the cost of drinking water increases, communities are increasingly looking for alternatives to using drinking water for non-consumption water needs. Water reclamation facilities provide an excellent solution to some of those needs. Treated wastewater, though not of drinking quality, is very suitable for many of our non-consumption water needs. Communities, especially in water starved areas, are starting to build facilities to distribute and reuse the effluent from water reclamation facilities. This is called water reuse because it's taking water that would otherwise be discharged into rivers and lakes and reusing it to meet many of our needs. This practice is an excellent way to protect and preserve our water supply, while lowering the cost of water usage. We will see increased water reuse in years to come.

Wastewater and the gems contained within it are no longer a nuisance to be disposed of in ways the burden our environment. It's a commodity to be exploited for the resources that it can provide. Water reclamation is here to stay. And our environment is the unquestioned beneficiary.

New equipment to support snow and ice operations

The Wayne County Equipment Division is preparing its fleet for the upcoming winter season. It will have 22 new combination salt brine/dry material spreaders available along with two newly retrofitted tankers to apply salt brine. In addition, 20 10-Yard Dump trucks have also been added to the fleet to replace older equipment.

This equipment will enable the Roads Division to utilize salt brine for anti-icing operations prior to a winter storm. An effective anti-icing program will reduce the amount of time required to provide safe driving conditions.

This process helps to keep snow and ice from bonding to the pavement, thereby reducing the time and the amount of salt required to complete the operation. In most cases, anti-icing will be used on straight time prior to a storm, further reducing costs.

Anti-icing is a proactive snow and ice control strategy. A small amount of liquid salt brine is applied to the pavement and bridge decks before a storm to prevent ice from bonding to the surface.

Anti-icing is commonly used on pavements where a higher level of service is necessary, such as on bridge decks. Specialized equipment is required to apply this brine solution (See photo below). The application of brine onto a roadway at the start of a winter storm, or even prior to the beginning of the snow, inhibits the development of a bond between the snow or ice and the pavement surface.

Furthermore, moderate and periodic reapplications of the brine during the storm can continue this effect. As a consequence, anti-icing has the potential of providing increased traffic safety at the lowest cost. Such preventive operations are the core of the Department of Public Services anti-icing program.

Preventative maintenance is being performed on the rest of the winter fleet. This includes dump trucks, graders, front-end loaders and material stackers. Each piece of equipment goes through a detailed process to inspect each system and repair as needed. Training has also been provided for new equipment for technicians to be successful.

With winter just around the corner, it is necessary that all steps are being taken to minimize equipment downtime and provide reliable equipment to support the snow and ice operations. Wayne County Department of Public Services (DPS) personnel are persistently looking at ways to provide even safer roadways to our residents and motorists.

Anti-icing practices and preventative maintenance are means for maintaining our roads and fleet in the best condition possible during a winter storm. DPS will continually research ways to provide services as efficiently and as cost effective as possible, at the same time increasing safety. SAFETY is our number # 1 priority!



DPS Buildings Division helps develop energy-savings project at morgue

An energy-efficient facelift at one of the busiest morgues in America is expected to save Wayne County taxpayers hundreds of thousands of dollars a year.

Working with the Building Technologies Division of Siemens Industry, the Wayne County Buildings Division helped develop the first of what will hopefully be many energy savings projects. The Buildings Division is a part of the county Department of Public Services.

Improvements at the Wayne County Medical Examiner's Office completed in mid-October include converting the primary source of heating and cooling from steam to natural gas and electricity. The energy savings project also features lighting upgrades and additional cold storage space.

The improvements, which cost \$3,285,000, will help reduce utility expenses by about 58 percent, county officials said. Annual savings of more than \$360,000 are guaranteed, according to the county's contract with Siemens, the technical project manager.

Natural gas is 60 percent less expensive than steam and the new heating equipment is more efficient, officials said. Although electricity is more expensive than steam, electric chillers require 14 percent of the energy to supply the same cooling.

The nine-month project will be repaid in less than 10 years from energy savings.

"These improvements are good for the environment and save money at the same time -- that's the type of outcome everyone should be proud of," Wayne County Executive Robert Ficano said.

More than 3,000 autopsies a year are performed at the 50,000- square-foot morgue, located on East Warren in Detroit. The medical examiner's office also serves as a teaching facility and has the only toxicology laboratory in Michigan accredited by the American Board of Forensic Toxicology.

The project is part of the Wayne County's Green initiative, which won an energy award this year from the Engineering Society of Detroit and DTE Energy. The award recognized the county's energy-savings projects at the Medical Examiner's Office and the Guardian Building; its Green Schools Program, and the county's instrumental role in attracting alternative energy and battery technology to metro Detroit.

"Wayne County is in a position to lead the nation in green energy manufacturing and deployment of green technologies," said Ficano. "The project at the Medical Examiner's Office is a blueprint for what can be achieved throughout the county."

The project will significantly reduce carbon emissions. It will generate annual greenhouse gas emissions savings equal to removing 326 cars from the road, officials said.

"Mr. Ficano has a vision for Wayne County to reduce costs and energy use and Siemens Industry has the tools, experience and knowledge to deliver that vision," said George Taylor, Siemens Area Manager for Energy and Environmental Solutions.

Taylor called the collaboration with Wayne County a "win-win-win."

"Taxpayers win with lower costs and a tax-neutral solution," he said. "Wayne County wins with a more comfortable, energy efficient building and better control over energy expenses. And, everyone wins because the building will have a smaller carbon footprint – a net positive for the environment."

Siemens Industry, Building Technologies Division is a leading provider of energy and environmental solutions, building controls, electrical distribution equipment, fire safety and security systems solutions.

In addition to Siemens and the Buildings Division, county staff from the Medical Examiner's Office, Health and Human Services and Office of the County Executive assisted in the energy-savings project.

Energy Improvements

- New chilled water plant converted from steam to high efficient electric. Although electricity is 50 percent more expensive than steam, electric chillers require 14 percent of the energy to supply the same cooling.
- New heating plant from steam to natural gas. Natural gas is 60 percent less expensive than steam.
- Added cold storage capacity, eliminating refrigerated trailer, saving \$23,400 a year.
- Lighting upgrade with compact fluorescent lamps, using less energy.
- Converted domestic water heater from steam to natural gas.
- Added reflective window film to reduce solar heat gain.
- New basement equipment room ventilation.
- Added electrical emergency generator connection supporting all operations.

Wayne County Parks to open Lightfest Nov. 18

WESTLAND- Wayne County Parks will host the Lightfest Opening Ceremony on November 18 at 6 p.m. on Hines Drive in Westland, Merriman Hollow Area, featuring fireworks, music and light refreshments.

This year's event features 17 new displays for everyone to enjoy, including a sports themed area, dinosaur displays and much more! Lightfest features more than 35 giant animated displays and more than one million lights; it is the Midwest's largest and longest light show.

The complete Lightfest route is over four miles of Hines Drive. Bring the family to see this wonderful holiday light display from 7 p.m. until 10 p.m. Lightfest is open from November 18 until December 31, 2010 (closed on Christmas Day). There is a \$5 donation per car.

December 7, 14 and 21 will be Toy Nights. Wayne County will be lending a hand to provide toys to disadvantaged children in Wayne County. On these three nights, the community is invited to bring a new, unwrapped toy in lieu of the suggested \$5 donation fee. Visitors are also welcome to contribute the recommended donation. Wayne County considers the donations an opportunity for the people of the community to partner with the County in an effort to make a difference in children's lives.

Don't forget to visit Santa's Workshop at Warrendale Park at the end of the Lightfest. Santa will be there from Thanksgiving until December 23. Don't forget to bring your letters to Santa! Outside of Santa's workshop there will be a giant mailbox where kids of all ages can drop off their letters to Santa. Santa's elves will pick up the letters each night, so make sure to get your wishes in early!

Although Lightfest begins at 7 p.m., Hines Drive will be closed to traffic beginning at 5:45 p.m. nightly. Visitors enter Wayne County Lightfest at Hines Drive and Merriman, 2 ½ miles south of I-96 in Westland.

Lightfest is brought to the public in partnership with Fox 2 News, the Friends of Wayne County Parks, DTE Energy, ITC Holdings, DBT Marketing and Promotional Group, McDonald Modular, Entertainment Express Luxury Limousine, Michigan Mountain Biking Association, Total Runner, Beatthetrain.com and Trails Edge store.



Engineering Construction List

[updated 10/28/2010 12:49 AM]

DPS Engineering Division - Construction List		
Road Construction Activity	Project Type	Construction Year
Cherry Hill / Haggerty Intersection In progress.	Intersection Widening	2010
Harris / Martinsville Intersection Completed	Resurface Road	2010
Millde Belt / Smith - Van Born Paving complete. Back of curb work to be done.ARRA "Stimulus" Project	Resurface Road	2010
Wayne Road Ramps to Michigan Ave August 2, 2010 start date.ARRA "Stimulus" Project	Reconstruct Road	2010
Cherry Hill / Canton Center Intersection Pavement complete. Back of curb work remains.	Intersection Widening	2010
Warren / Wayne - Merriman In progress.	Resurface Road	2010
Cherry Hill / Lilley Intersection In Progress.	Intersection Widening	2010
Allen / Pennsylvania - North Line In Progress	Resurface Road	2010
Middle Belt / Five Mile - Seven Mile In Progress.	Resurface Road	2010
Five Mile / Greenfield - Schaefer In Progress.ARRA "Stimulus" Project	Resurface Road	2010
Seven Mile / Gratiot - Hayes In progress.ARRA "Stimulus" Project	Resurface Road	2010
Warren / Lilley Intersection In Progress.....ARRA "Stimulus" Project	Intersection Widening	2010
Judd / Haggerty Intersection August 2, 2010 start date.ARRA "Stimulus" Project	Resurface Road	2010
Inkster / Corona - Ford Sidewalk and back of curb work.	Resurface Road	2010
Lake Shore Dr / Moross - Vernier In progress.ARRA "Stimulus" Project	Resurface Road	2010
E.N. Hines Dr / Ann Arbor Trail - Merriman Ramp August 9, 2010 start date.ARRA "Stimulus" Project	Resurface Road	2010
Toledo / Eureka - North Line In Progress.	Resurface Road	2010
Van Born / Lilley - Haggerty In Progress	Resurface Road	2010
Middle Belt / Cherry Hill - Warren In progress.ARRA "Stimulus" Project	Resurface Road	2010

Schaefer / Dix - Greenfield Reconstruct existing road with new concrete. One lane open in each direction.	Reconstruct Road	2010
Joy / Inkster - Beech-Daly In progress.ARRA "Stimulus" Project	Resurface Road	2010
Van Born / Telegraph - Monroe In progress.ARRA "Stimulus" Project	Resurface Road	2010
Canton Center / Palmer - Cherry Hill In progress. One lane of traffic open in each direction. Widen to five lane roadway.ARRA "Stimulus" Project	Reconstruct Road	2010
Merriman / Ann Arbor Trail - Joy Paving Complete. Back of Curb work to be done.ARRA "Stimulus" Project	Resurface Road	2010
Goddard Extension / Merriman Bridge In progress. Goddard Extension closed to traffic. Merriman Road has lane shifts.ARRA "Stimulus" Project	Bridge Rehabilitation	2010

Contact Us

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