

GOVERNOR'S COLUMN



Earth Day Message from the Governor

As we recognize Earth Day on April 22, I cannot help but think about New Hampshire's unmatched natural beauty. From the noble mountains that tower over the North Country, to our beautiful lakes and rivers, to the sandy beaches along our Seacoast, our natural resources are a true treasure.

A newly minted quarter in the "America the Beautiful" series features a birch-tree framed view of Mount Chocorua. I applaud that selection and readily admit it is nearly impossible to select just one of our natural gems to highlight to the entire country.

Such natural resources are critical to the quality of our daily lives, attracting businesses and entrepreneurs to the Granite State and creating opportunities for numerous recreational activities for all of us to enjoy. We must protect New Hampshire's special places.

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COMMISSIONER'S COLUMN

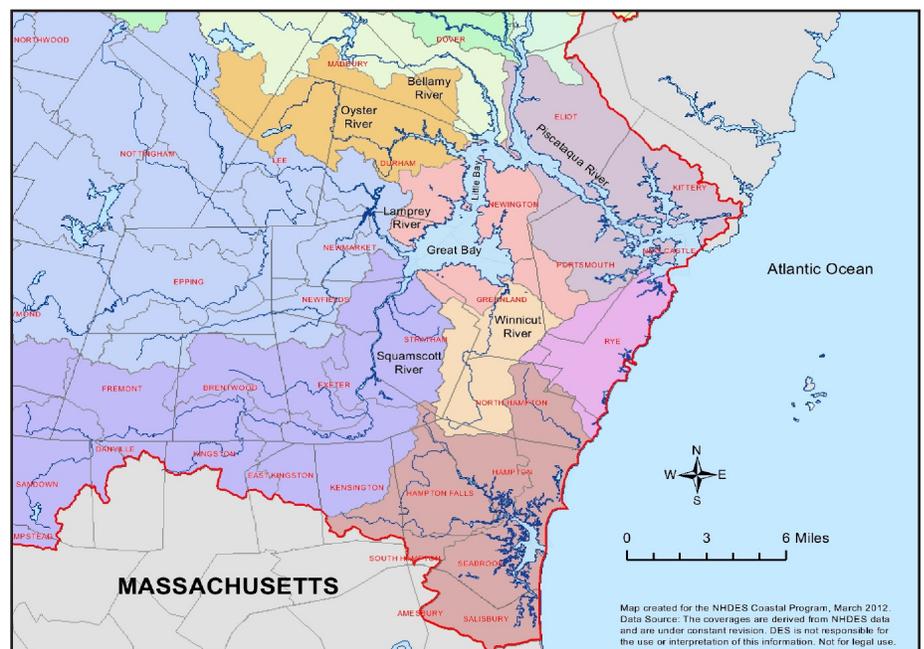
Estuaries – New Hampshire's Hidden Coast

It is commonly known that NH only has 18 miles of ocean coastline. But did you know that this short coast contains two of the most important estuaries in the United States? The Great Bay Estuary and Hampton-Seabrook Harbor contribute more than 200 additional miles to the briny shoreline and have both been designated as "estuaries of national significance" by the U.S. Environmental Protection Agency. The Great Bay Estuary also serves as a National Estuarine Research Reserve for the National Oceanic and Atmospheric Administration. With much of these estuaries located away from highways and roads, they are hidden in plain sight.

As places where rivers flow into the ocean, estuaries are both productive and delicate. They provide food and shelter for a diversity of animals and plants that serve as building blocks for the ocean ecosystem. However, they are also at the receiving end of all the pollution flowing from the land. The Great Bay Estuary is formed by the confluence of seven major rivers that then flow into the ocean. The Hampton-Seabrook Estuary is dominated by the state's largest salt marsh and clam flats. The watershed that drains to these estuaries covers nearly one quarter of the land in the state and is home to about the same percentage of the state's population.

While these estuaries may be veiled from common view, they are certainly not forgotten.

Commissioner's Column, continued on page 2



DES Coastal Program map

Commissioner's Column

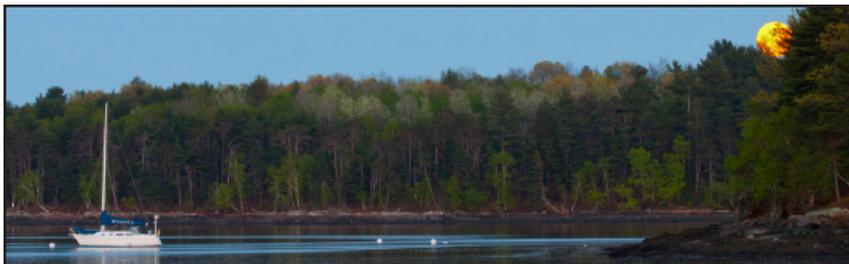
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Every three years, the Piscataqua Region Estuaries Partnership (PREP), in cooperation with DES and UNH, prepares a report on the status and trends of environmental indicators in the estuaries. This year's report shows that stresses like the amount of impervious surface (parking lots, roadways and roofs) and nutrient pollution are impacting the health of the estuaries. Of the 22 key indicators included in the report, 15 were classified as having negative or cautionary conditions or trends. The amount of oysters and eelgrass are in decline and nuisance algae plants are on the rise. These vital signs of the health of our estuaries are showing us that increased efforts to study and restore our estuaries are needed. The full report and guides for citizens and policy makers are available at www.stateofoureestuaries.org.

There is a growing recognition that these estuaries need everyone's help. When the PREP report was released at an event this past December, a full-capacity crowd of 240 people attended. The theme of the conference was "Coming Together for Clean Water Solutions". Twenty-seven presenters, including staff from DES, shared information about conserving natural areas, reducing pollution, restoring habitats, and investing in clean water.

DES has a number of programs working to improve the estuaries. DES staff work closely with PREP to collect and analyze data for the State of Our Estuaries indicators, and help obtain funding for water quality improvement projects. The DES Coastal Program is involved with restoration projects and working with communities to prepare for coastal hazards. The DES Shellfish Program monitors water quality throughout the estuaries to identify pollution sources and determine where it is safe to harvest shellfish. The DES Oil Spill Response Program trains partners and maintains equipment to be ready to respond in the event of an oil spill. The DES Watershed Assistance Section leads restoration projects throughout the Great Bay Watershed to reduce stormwater pollution. And, the DES Beach Program monitors water quality at the popular coastal beaches, some of the cleanest in the nation.

You can let others in on our little secret -- these two nationally-recognized estuaries are right in our backyard. Working together we can protect and restore New Hampshire's estuaries, not just for ourselves but for the whole country. ■



Sailboat and Moon on Great Bay - photo by Chris Keeley

Hampton-Seabrook Harbor Shipping Channels Improved

Hampton-Seabrook Harbor is New Hampshire's largest commercial fishing port, supporting approximately 85 vessels (30 full-time lobster boats, 30-40 part-time lobster boats, and 12-14 finfish boats). The harbor also is home to 12 recreational charter-fishing boats, a 100-slip marina, 235 moorings for recreational craft, 2 boat ramps, and a state-owned pier. The DES Coastal Program recently supported the region's commercial fishing fleet and economy by helping to



Dredged materials being distributed on Seabrook Beach for beach nourishment

coordinate the Hampton-Seabrook Harbor dredging project, which was completed in January 2013. The project is designed to keep the shipping channels open for these boats by providing adequate depth in the harbor.

In addition, the dredged materials from the project were used for beach nourishment at Hampton Beach State Park and Seabrook Beach, helping to maintain these popular recreational areas for residents and tourists alike. ■

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29 Hazen Drive • Concord, NH 03301
603-271-3503

www.des.nh.gov
editor@des.nh.gov

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PSNH Completes Cleanup of Legacy Manufactured Gas Plant Site in Keene

In cooperation with officials from DES and the City of Keene and adjacent landowners, Public Service of New Hampshire (PSNH) and parent company Northeast Utilities (NU) reached the finish line after a multi-year collaborative remediation effort in Keene. The final phase of remediation of the former Manufactured Gas Plant (MGP) site was completed in October 2012. This project reflects what can be done when regulatory agencies and the regulated community work together in a combined effort toward common environmental goals.

Manufactured gas plants such as this one operated by heating coal to produce gas for lighting and heating. Over the course of history [1859 to mid-1950s], this plant was owned and operated by several companies including PSNH. Impacts related to MGP processes were discovered on the site in the 1990s, resulting in numerous site investigations and an approved remedial approach. The Phase I Remedial Action Plan (the land-based cleanup) began in 2003 and included the property that formerly contained the MGP operations. From 2006 to 2009, PSNH conducted several investigations within Mill Creek and the Ashuelot River, which led to the development of the Phase II Remedial Action Plan (water-based cleanup). State/Federal permits were obtained, and 14 access agreements with abutting property owners were secured. The Phase II remediation targeted Mill Creek and select portions of the Ashuelot River in 2010 and was completed in 2012.

The Phase II project team was comprised of DES, City of Keene, True Blue Environmental Services (remediation con-



Removal of coal tar impacted sediments from the Ashuelot River in Keene.

tractor), Weston & Sampson (environmental consultant), Air Logics, LLC (perimeter air monitoring), and NU/PSNH. The Phase II remediation included the diversion/dewatering of Mill Creek (± 900 linear feet) and the Ashuelot River (± 550 linear feet). It also involved excavation and off-site disposal of approximately 21,000 tons of impacted sediments, the treatment/discharge of approximately 6.9 million gallons of remediation waste water, continuous perimeter air monitoring, and the restoration/stabilization of remediated areas of Mill Creek and the Ashuelot River. Impacted materials removed from the site were sent to Environmental Soil Management Inc. located in Loudon, New Hampshire for thermal treatment and recycling. All parties collaborated to ensure compliance with state and federal requirements.

This cleanup is a testament to PSNH's commitment to environmental stewardship within the communities it serves.

For further information, please contact John F. Liptak at DES, (603) 271-1169, john.liptak@des.nh.gov or William J. Hoynack, NU - Manager of Environmental Licensing & Permitting. ■



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NH Stormwater Utility Feasibility Studies - Lessons Learned - Don't Assume Anything

As the challenges and costs of managing stormwater continue to grow, many New Hampshire communities are exploring stormwater utilities as a sustainable option for funding their stormwater management programs.

Stormwater utilities are similar to the dedicated municipal funds for public water and sewer utilities. A stormwater utility generates funding through user fees that are typically based on the impervious surfaces (e.g., roofs, roads, driveways, parking lots) of each property. Revenues generated from the user fees are placed in a dedicated fund to implement a stormwater program that directly supports maintenance and upgrades of existing storm drain systems, development of drainage plans, flood control measures, and water quality programs that serve the users.

There are over 1,200 stormwater utilities nation-wide, and in 2008, municipalities in New Hampshire were given legal authority to form stormwater utilities under RSA 149-I.

To determine the feasibility and appropriateness of stormwater utilities as a funding source for municipal stormwater programs, the DES Watershed Assistance Grants Program funded feasibility studies in Dover, Portsmouth, Manchester, and Nashua. The results of the studies and the experiences of the participants were documented throughout the process and tabulated for other New Hampshire municipalities interested in identifying a funding mechanism for their stormwater programs. Some of the suggestions include:

1. **Involve the Public:** The public must be involved from the very beginning. They should have the opportunity to learn about how a stormwater utility works, to ask questions, and to voice concerns to enable an educated decision to be made about whether they think a stormwater utility is a good option for their municipality.
2. **Ensure Political Understanding and Support:** It is essential that municipal decision-makers fully understand the purpose and function of a stormwater utility to speak ac-

curately about it to their constituents and answer questions that arise. Ensure that all supporters communicate why they support the stormwater utility and invite them to speak at public forums.

3. **Provide Real Numbers and Full Disclosure:** For the public to better understand how they would be personally impacted by a stormwater utility fee, actual examples of rates based on various rate structures should be developed and available for public review.

4. **Identify and Communicate the Need:** It is important to identify and communicate local stormwater needs that could be funded with revenue from a stormwater fee. Highlighting examples of potential fixes to ongoing local stormwater concerns makes the message about solving problems, rather than a message about stormwater.

5. **Don't Assume Anything:** No matter how aware your community is about stormwater and how much support appears to exist, conduct more communication and outreach than you think you will need.



A bioretention cell being installed in Portsmouth's Pannaway Manor Neighborhood

Watershed Assistance Grant funding for the feasibility studies was provided with

Clean Water Act Section 319 funds from the U.S. Environmental Protection Agency.

More details from the municipalities' experiences are documented in the Stormwater Feasibility Studies' Final Reports: <http://des.nh.gov/organization/divisions/water/stormwater/utilities.htm#feasibility>

Contact: Barbara McMillan at barbara.mcmillan@des.nh.gov, (603) 559-1517, or Jillian McCarthy at jillian.mccarthy@des.nh.gov, (603) 271-8475. ■



A rain garden installed in Windham near Cobbett's Pond

Municipal Wastewater Infrastructure Investment Demands Keep Growing

DES recently completed New Hampshire's 2012 Clean Watersheds Needs Survey (CWNS). This survey of municipal wastewater facility investment needs is performed by DES every four years for the United States Environmental Protection Agency (EPA) which, in turn, compiles data from all 50 states to develop a national picture of projected wastewater investment needs. The CWNS provides a complete picture of the future capital investment needs of municipal wastewater facilities required to meet the public health and water quality goals of the federal Clean Water Act and ensure system capacity for sustainable economic development.

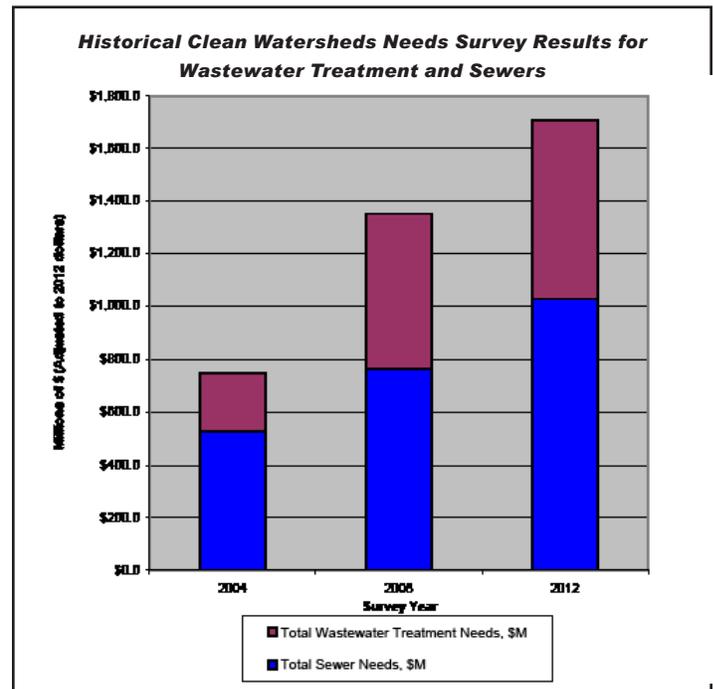
New Hampshire's 2012 CWNS results are summarized in the table below:

Facility Category	Required Investment
Wastewater Treatment	\$680,992,038
Sewer System Rehabilitation/Replacement	\$183,679,847
New Sewers	\$239,474,322
Combined Sewer Overflow Correction	\$605,803,850
Total	\$1,709,950,057

In 2012, New Hampshire municipalities estimated that the future investment needed was about \$1.71 billion to upgrade or expand municipal wastewater collection and treatment facilities. And, significantly, the majority of these needs must be addressed within the next 10 years.

Most of the required investment is needed to improve wastewater treatment facilities (about \$681 million) and combined sewer overflow remediation (about \$606 million). Wastewater treatment facility improvements are typically required to address new federal permit limits, increase capacity, and replace aging equipment. Combined sewer overflows (CSOs) exist in our larger, older cities where sewer systems, typically constructed in the late 1800s, carry both domestic sewage and stormwater flow in the same sewers. CSOs must be separated to eliminate discharges of untreated sewage to surface waters during storm events.

New Hampshire's wastewater investment needs have increased dramatically in eight years as summarized in the graph below based on the last three needs surveys.



The reported needs for municipal wastewater infrastructure investment are up almost 50% since 2008 and 300% since 2004.

The wastewater investment needs identified by New Hampshire's municipalities through the CWNS are already significant and are expanding rapidly. Addressing the challenges will require careful planning and engineering, project phasing and, whenever possible, partnerships with state and federal funding agencies through low interest loans and grants to keep the costs as affordable as possible for sewer users. Investments, such as those identified by the CWNS, are important to ensure sustainable wastewater infrastructure that is critical to ensuring a high quality environment and healthy economy for New Hampshire.

The 2012 CWNS was the most comprehensive to date. DES staff would like to thank all the N.H. municipalities who took the time to provide information for DES to complete this survey. Under Sharon Rivard's leadership, James Tilley, Gloria Andrews, and Laura Weit-Marcum accomplished extraordinary work collecting, analyzing and entering the reported information into the EPA CWNS database. For more information about EPA CWNS, visit: <http://water.epa.gov/scitech/datatit/databases/cwns/index.cfm>. For questions about the New Hampshire Wastewater Needs, contact Sharon Rivard at sharon.rivard@des.nh.gov or 271-2508. ■

Uncovering a Piece of Petroleum Transport History

On November 20, 2012, while working on a petroleum remediation project at the former Kennett Oil Bulk Storage Facility in Conway, an excavator unexpectedly scraped on a metal object a few feet below the surface. The operator carefully removed more soil to discover what appeared to be two underground storage tanks.



Excavated tank -DES photo

Further inspection revealed riveted seams and a flat bottom indicating that one of the tanks was likely from a horse-drawn wagon used to transport oil in the late 1800s. The remediation project continued, but this is believed to be one of the oldest tanks discovered in New Hampshire. ■



Photo source: Private Family Archive



Photo courtesy of Jim Murry, Anchor Creek Farm, PA

Notice: Underground Storage Tank Proposed Hearing

DES is proposing to readopt with amendment the rules currently identified as Env-Wm 1401, Underground Storage Facilities, and renumber them as Env-Or 400. A public hearing on the proposed rules is scheduled for Thursday, March 14, 2013 at 9:00 a.m. in Room 112 of the DES Offices at 29 Hazen Drive, Concord, NH. The deadline for submission of written comments is 4:00 p.m. on Thursday, March 28, 2013.

The Initial Proposal, a fixed text of the Initial Proposal, and the Rulemaking Notice (including the Fiscal Impact Statement) for the rules are available at <http://des.nh.gov/organization/commissioner/legal/rulemaking/index.htm#poil>.



Discover

WILD

NEW HAMPSHIRE DAY
APRIL 20, 2013

Frisbie Memorial Hospital first in New Hampshire with Anti-Idling Technology

For the past two decades, truck stops around the country have been equipped with electrical outlets and heating/air conditioning connections to prevent long-haul truckers from idling their engines and emitting dangerous diesel fumes for extended periods. Now, Frisbie Memorial Hospital in Rochester has implemented this same technology for ambulances – the first hospital in New Hampshire to do so.

After patient delivery or before patient transport, ambulances often idle for extended periods of time, sometimes an hour or more, to keep medical equipment charged and to keep vital medications at the proper temperature. Ironically, ambulances often idle directly outside emergency room doors where their exhaust emissions can easily travel into the emergency room itself.

Ambulance anti-idling kiosks look similar to gas pumps but, instead of fuel, they provide a power cable that connects to the ambulance, keeping the motor battery and medical equipment charged. They also offer a window-mounted duct that supplies heated or cool air to the ambulance. These allow the ambulance to wait for long periods of time with the engine turned off.

Marc Tetreau, Frisbie Memorial Hospital Senior Director of Facilities Services and Safety, is proud of his role helping

Frisbie to become New Hampshire's first hospital to install this anti-idling technology. "We recognized the danger represented by extended ambulance idling" he said, "and considering the 'at risk' nature of our customers, we knew we had to do all we could to protect them."



Ambulance anti-idling station at Frisbie Memorial Hospital in Rochester

Frisbie Memorial Hospital is a pilot facility for installation of the ambulance anti-idling kiosks manufactured by Craufurd Manufacturing called "MediDock" kiosks. The hospital received a \$19,000 grant from DES to partially cover the purchase and installation of two MediDock kiosks outside the emergency room. Funding originated from the federal Diesel Emissions Reduction Act (DERA) of 2008 that appropriated funds for diesel emissions abatement efforts throughout the U.S. The DES Air Resources Division identifies opportunities to reduce diesel emissions, identifies eligible applicants, distributes DERA funds through a grant process and helps to coordinate the projects.

Several other hospitals have expressed an interest in ambulance anti-idling kiosks. If the experience at Frisbie Memorial Hospital is positive,

emissions from ambulance idling at hospitals may soon become a thing of the past. ■

Expiration Date for Emergency Generators gets Extended

DES has extended the expiration date of the General State Permit for Internal Combustion Engines Used As Emergency Generators (GSP-EG) to April 30, 2014. DES chose to extend the expiration date to allow for the recent changes to Federal regulations pertaining to Reciprocating Internal Combustion Engines (RICE) to be finalized. In addition, the extra year enables NH facilities to register as online providers with the DES OneStop Data and Information online registration system. Current GSP-EG facilities do not need to submit any paperwork at this time to continue coverage under the GSP-EG. The extended GSP-EG is viewable online at: http://des.nh.gov/organization/divisions/air/pehb/apps/permit_air_emissions_gsp_eg.htm.

Federal regulations have been finalized by EPA, which are applicable to all RICE in some way regardless of size, age or state permitting threshold levels. Because of the complexity of these rules and the vast number of devices that are subject to their requirements, DES has developed a webpage to aid facilities in determining what requirements apply. Visit the Stationary Engines: Prime Power and Emergency website at: www.des.nh.gov/organization/divisions/air/pehb/apps/stationary-engines.htm.

DES recommends that facilities review the website and familiarize themselves with the federal requirements as they pertain to their specific device(s). For more information contact Cathy Beahm at (603) 271-2822 or catherine.beahm@des.nh.gov. ■

Tales From the Field - Carefully Raising the M.V. Kearsarge

Despite a routine morning check by the owner on January 10th, the 66 foot long M.V. Kearsarge sank in Sunapee Harbor at the dock three hours later. The initial assessment by the Sunapee Fire Chief revealed that no petroleum had been discharged but, because the lake is a public water supply, the Chief called DES for immediate assistance. Ray Reimold of the DES Spill Response and Complaint Investigation Section instructed one of the boat's owners to hire a contractor with experience at oil spill contamination booming to address the most vulnerable features: the boat's engine and gas tanks. The M.V. Kearsarge's engine held approximately five gallons of oil, and two gas tanks each having a 100 gallon capacity - estimated to be half full.



The M.V. Kearsarge in Sunapee Harbor

A larger concern than the possibility of environmental impact was the safety of those acting to retrieve the sunken M.V. Kearsarge. The two day project developed into collaborative efforts from divers, regulators, emergency responders, environmental consultants, volunteers, and local entities. Three pumps were used to bail out water in the hull while at the same time air bags were inflated to lift the boat. The majority of the water within the boat was collected in a containment area comprised of hard and sorbent booms. Water from within the engine room was then pumped out by Clean Harbors Inc. with a vacuum truck for proper disposal. Divers strapped the MV Kearsarge amidst rain and extremely icy conditions to allow for a tow truck to drag it to shore.

Once the M.V. Kearsarge was floated, responders were able to plug up the hole in the coupling from a sea valve which caused the water inflow. Part of the damage to the boat was to the rudders due to its contact with the lake floor. Everyone's efforts may allow the owners to have the vessel ready for the upcoming 2013 seasons. ■

Governor's Column

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A healthy environment and economic development go hand in hand, and supporting our rapidly growing green economy in order to preserve our natural beauty and create good jobs is an important aspect of my "Innovate NH" jobs plan.

But to truly seize the promise of an innovative green economy, we need to develop a 21st century energy strategy. It will give businesses the framework they need to innovate, create jobs and reduce energy costs, while ensuring that we keep sight of our responsibility to protect our natural resources.

As we move New Hampshire forward, we must roll up our sleeves and, together, do everything we can to be good stewards of our natural resources for future generations.

Our state is at its best when we include the talent, spirit and energy of all its citizens.

I encourage all Granite Staters to actively participate as we strive to protect our natural resources and grow the green economy of the future.

With every good wish,

Maggie Hassan

Governor



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