



Green Power *Construction*

Landfill Gas pipeline to fuel energy savings for MMSD customers

Construction of a low-pressure pipeline is underway in Milwaukee and Waukesha Counties that will help customers of the Milwaukee Metropolitan Sewerage District (MMSD) save tens of millions of dollars over 20 years with a local source of renewable energy.

“Cleaning wastewater requires a tremendous amount of energy, especially when it rains,” said Kevin Shafer, MMSD Executive Director. “This project creates jobs and is good for our customers’ wallets and the environment. It also reduces air pollution from traditional energy sources such as coal.”

The 19-mile-long pipeline will transport landfill gas from the Emerald Park Landfill in Muskego to MMSD’s Jones Island Water Reclamation Facility in Milwaukee (*see map on page 3*). For most of the route, some 13.7 miles, workers will install

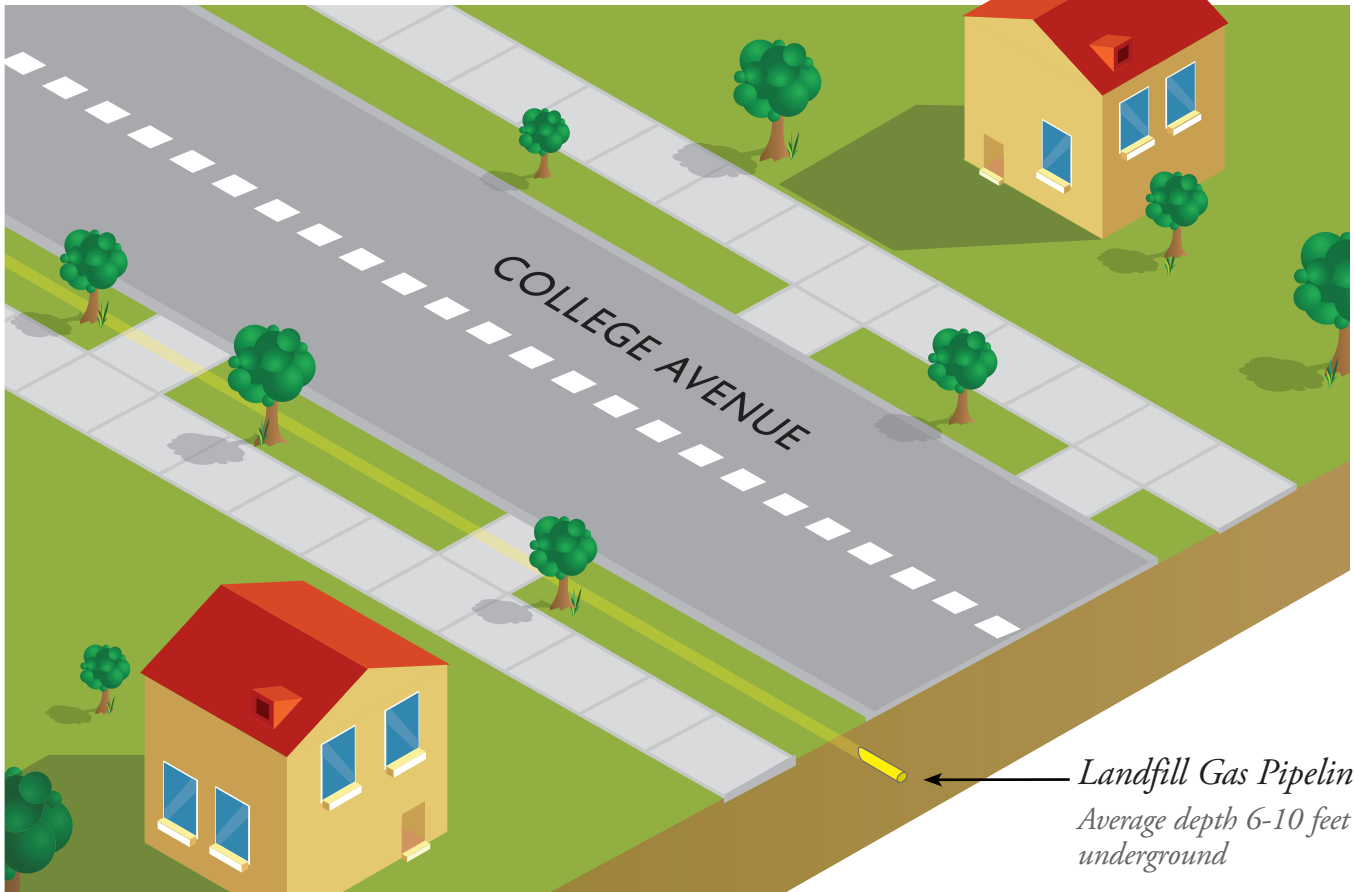
a new pipeline underground. MMSD plans to connect the new pipeline to an existing 6-mile-long pipeline that runs from College Avenue, north to Jones Island.

New equipment at Jones Island will transform the landfill gas into electricity, allowing us to significantly reduce the amount of electricity and natural gas we purchase to clean wastewater at the District’s downtown facility.

Low Pressure Pipeline

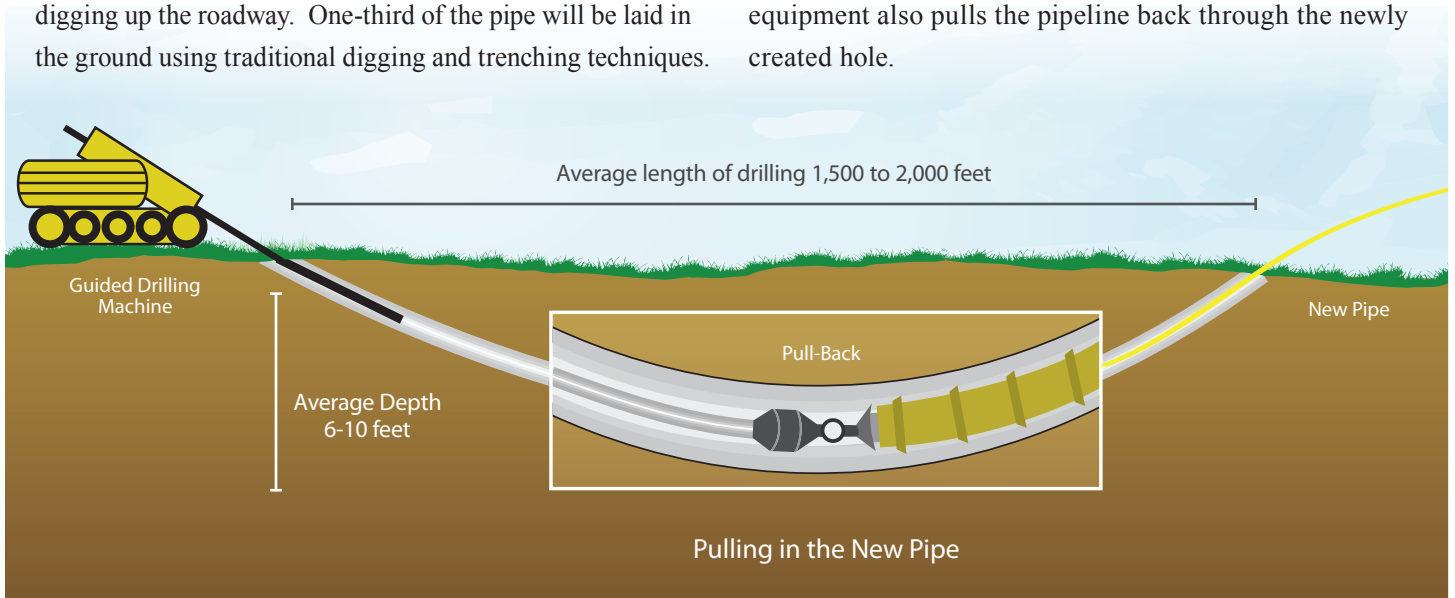
The green power pipeline will move landfill gas to Jones Island with a pressure under 100 pounds per square inch (PSI). By comparison, tires for on-road bicycles are inflated to 95–135 PSI. Gas grill tanks hold propane at a range of 60–120 PSI. Water comes out of your shower or faucet at a range of 50–60 PSI.

Benefits of Directional Drilling Vs. Digging a Trench



To minimize disruptions to neighborhoods and traffic, construction crews will install two-thirds of the new pipeline using a technique called directional drilling—a common method for installing underground utilities without disturbing the ground above. It's ideal for getting under streets without digging up the roadway. One-third of the pipe will be laid in the ground using traditional digging and trenching techniques.

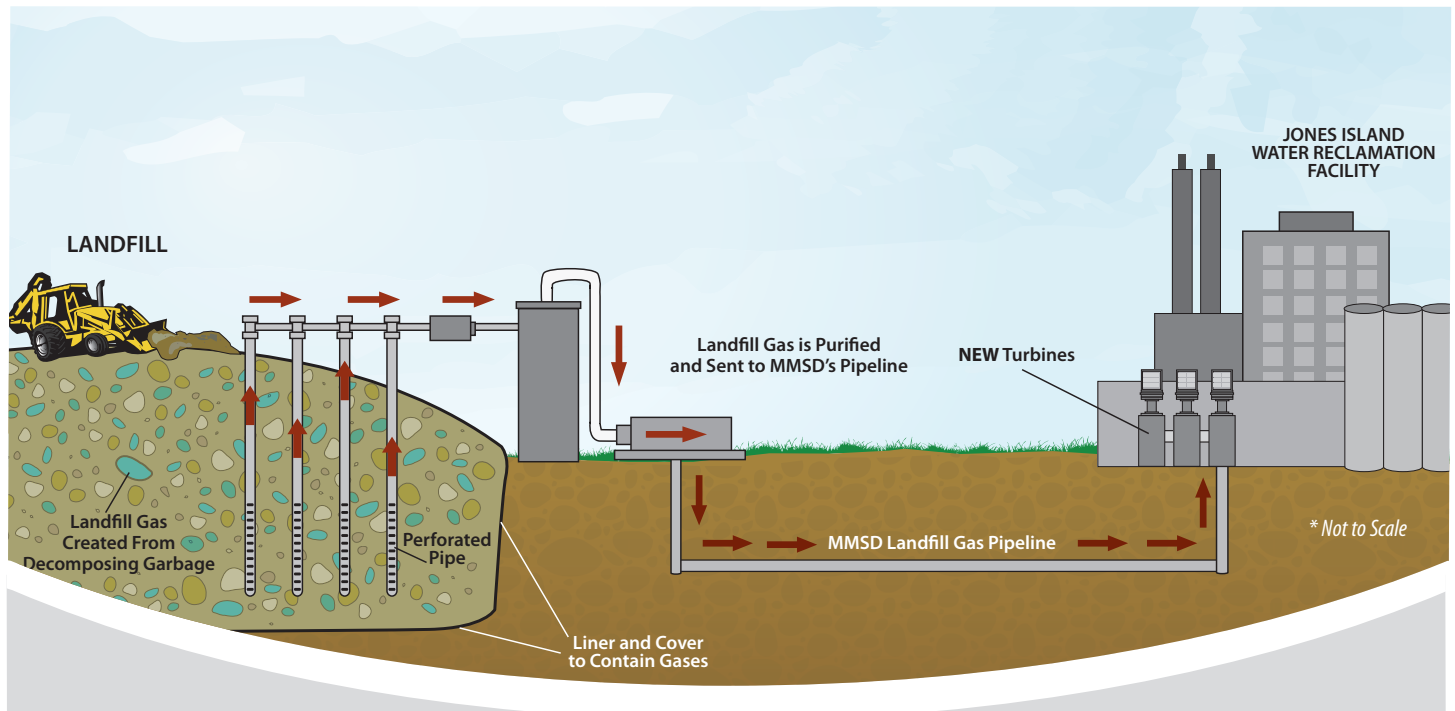
Directional drilling machines use a drill to cut horizontal holes underground for various utilities. Electronic sensors help guide the drill and monitor its location. Once the drill gets to its destination, a larger drill bit is attached to pull back toward the machine. That same piece of equipment also pulls the pipeline back through the newly created hole.



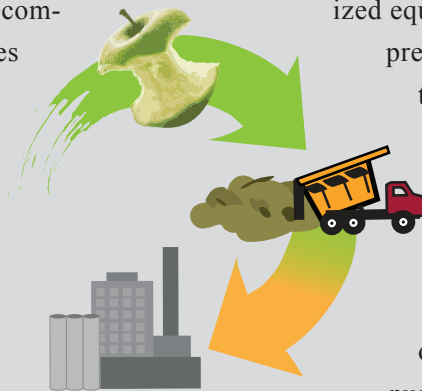
Proposed Landfill Gas Pipeline Route



Landfill Gas to Energy



Landfill gas is created when garbage decomposes. The gas is captured using a series of pipes or wells and a vacuum system. It should also be noted that landfill gas has about half as much energy output as natural gas. Currently, landfill gas from the Emerald Park Landfill is burned off into the air. In the near future, the landfill gas at Emerald Park will instead go to special-



ized equipment that will clean the gas and prepare it for a 19-mile-long journey through MMSD's soon to be constructed, low-pressure pipeline to the Jones Island Water Reclamation Facility. At Jones Island, three new turbines will convert the gas into energy, reducing the amount of electricity and natural gas MMSD purchases to clean water.

Public Open Houses

MAY 17TH 5PM-7:30PM

MATC OAK CREEK

Lecture Hall A (main hall)
6665 South Howell Avenue
Oak Creek, WI 53154

MAY 24TH 5PM-7:30PM

FRANKLIN PUBLIC LIBRARY

Fadrow Room A
9151 W Loomis Rd
Franklin, WI 53132

Contact Us

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