



GREEN PURCHASING CASE STUDIES: WATER TANKS GET A GREEN MAKEOVER

CITY OF PORTLAND, BUREAU OF PURCHASES

SEPTEMBER 2008



Water tanks at Vermont Hills freshly painted with "green" MetroPaint.

PURCHASING GREEN

The Portland Water Bureau routinely uses **MetroPaint**, a 100 percent recycled, locally-produced latex paint, for all concrete water tanks. Painting extends the life of these tanks by reducing the amount of salts that are able to permeate the

concrete and by slowing the corrosion of the steel reinforcing rods. In an effort to minimize waste, the Portland Water Bureau uses one standardized color, dark green.

BENEFITS

Recycling paint is far less resource intensive than manufacturing new paint. For example, re-using ten gallons of latex paint saves 1,060 kilowatt hours, enough energy to power the average Oregon household for a month. There are two types of recycled paint: consolidated and reprocessed. MetroPaint is consolidated paint, which means leftover paint is simply rebled and filtered, resulting in less water and no addition of toxic materials (such as heavy metals and petrochemicals) when compared to producing virgin paint.

Many latex paints contain organic solvents, which disperse and bind other paint elements. These organic solvents emit volatile organic compounds (VOCs), which are respiratory irritants and contributors to the formation of smog. Since recycled paint involves minimal processing, no new VOCs are produced during its formulation. Additionally, lab tests show that overall MetroPaint contains modest levels of VOCs.

MetroPaint uses 100 percent post-consumer paint collected from the city's hazardous waste program to produce its recycled paint. This keeps paint waste out of landfills and provides a locally-produced, high-quality recycled product to individuals, governments, and businesses. Currently, MetroPaint represents

AT A GLANCE

WHO

Portland Water Bureau

WHAT

100% recycled, locally-produced latex MetroPaint

COST

💰 Costs 75% less than virgin paint

💰 Initial pilot project saved \$3,500

BENEFITS

- ✓ Conserves natural resources
- ✓ Lessens VOCs emissions
- ✓ Reduces waste
- ✓ Contains 100% post-consumer material
- ✓ Produced locally

five percent of the Portland paint market. Any surplus MetroPaint can be collected and recycled again, creating a closed-loop paint recycling system.

COST

MetroPaint prices vary by color and volume purchased. The Portland Water Bureau paid \$25 for each five-gallon can of dark green paint for a 2006 pilot. By purchasing MetroPaint instead of virgin paint for the pilot, the Portland Water Bureau cut its costs by 75 percent and saved \$3,500 (approx. 200 gallon purchase).

“After I heard that MetroPaint was seeking Green Seal certification, I knew we wanted to test this local product. The fact that five gallons of MetroPaint costs only a few dollars more than a single gallon of new paint makes it a good deal for ratepayers.”

David Shaff
Administrator, Portland Water Bureau

PERFORMANCE

The Portland Water Bureau has been pleased with the quality of MetroPaint for use on its concrete tanks. It has good coverage and performed well during the first winter season after it was applied. Lab tests have shown that MetroPaint rates as well as virgin paint in terms of safety and performance.

MetroPaint is also [Green Seal](#) certified. Green Seal's GS-43 environmental standard for recycled-content latex paint verifies that paint meets applicable Master Painters Institute (MPI) performance standards, the same performance standards used for virgin paint, and also that VOC levels comply with federal and state regulatory limits.

LESSONS LEARNED

There are trade-offs with using MetroPaint. For example, color choices are limited and sheen (e.g. flat, eggshell, semi-gloss, etc.) varies. However, for outdoor applications like Portland's water tanks, these issues are less of a concern, especially when MetroPaint's environmental benefits and competitive cost are taken into account.

ABOUT PORTLAND WATER BUREAU

The Portland Water Bureau manages the water supply system that delivers high-quality drinking water to the more than 800,000 people who live in Portland. The Operations Group operates and maintains the conduits, terminal storage reservoirs, tanks, pump stations, water treatment facilities, pressure regulators, an accredited Laboratory, and the Water Control Center. This group is also responsible for ground maintenance and operation and maintenance of both drinking and decorative fountains.

FOR MORE INFORMATION

Kim Dinan, Sustainability Coordinator, Portland Water Bureau
503-823-4724