🔅 White Bear Lake Chamber of Commerce



Melody Markert Bioproducts & Biosystems Engineering University of Minnesota, Twin Cities

Organization Background

he White Bear Area Chamber of Commerce is



one of the largest business non-profits in the Northeast Metro suburbs, serving 12 communities over an area of 100 square miles. The organization is a dedicated community leader, fostering projects and programs that strengthen business through advocacy, networking, and education. The Chamber continually supports 400 businesses resulting in the prosperity and enrichment of its communities. This project focused on four of these communities: White Bear Lake, White Bear Township, Gem Lake, and Vadnais Heights.

"It was so encouraging seeing the enthusiasm and willingness of the automotive shops to try different, safer products. The small shops participating collectively make a huge impact. I learned so much at MnTAP this summer. Thank you to everyone at the Chamber for creating such an inviting community and helping through this process." ~ MM

Project Background

The objective of the White Bear Lake project was to recommend and promote the adoption of safer cleaning and degreasing products in local automotive shops. Recommendations included safer alternatives for brake cleaners, penetrants, and degreasers, among others. A wide variety of businesses participated, ranging from small one-man auto repair shops to corporate automotive retailers.

The project began with outreach to the auto shops to connect with business owners and spread awareness about the project and the safer products available in the automotive industry. Through this process, 36 vehicle maintenance shops were contacted, with 19 participating in the project. During the same introductory visit, interested owners shared information on the current products they were using. That information was used to conduct an assessment of the cleaning products' safety, followed by researching products available at local auto parts retailers to identify safer alternatives. Businesses were provided with free samples of the alternative products for the technicians to test for functionality and performance. If they were satisfied with the sample and verbally agreed to change products, a starter case of the recommended product was purchased for the

business to try out for a longer period and encourage the continued use of the safer alternatives.

Incentive for Change

Automotive maintenance and repair shops in the White Bear Lake area had the opportunity this summer to switch to safer cleaning and degreasing products to improve worker safety and air quality for the entire community. Many automotive products have high levels of hazardous air pollutants (HAPs) and volatile organic compounds (VOCs) that degrade local air quality and are hazardous to human health. Individually, these small degreasing operations produce relatively small amounts of these harmful compounds. Businesses, especially small businesses, typically do not have the time nor the resources to put towards environmental projects, but when given the opportunity to address the issue of air quality in an accessible and affordable way, many were interested and open to improving their cleaning and degreasing processes to benefit worker and community health.

Solutions

Assessments were made by the intern of the current cleaning and degreasing products used in each facility. When products did not meet the criteria to qualify as a safer product they were provided with recommendations for alternatives. Selection criteria were based on three values: HAPs, VOCs, and air pollution potential. Products were considered environmentally safer if they contained no HAPs, had less than 10% VOCs, and generated less than 1 lb of ozone per pound of product. Additionally, recommendations minimized Chemicals of Concerns whenever possible.

Safer Products

Choosing safer products is not as simple as just looking at product labels. Products can look very similar but vary greatly in levels of safety for health and the environment. Language such as "50-State Compliant," "Ultra Low VOC," "Low VOC," and "Non-Chlorinated" can help consumers identify a safer product, but Safety Data Sheets (SDS) are the best way to know what ingredients are contained in each product and to understand the health and environmental risks.

Results

In total, 74 automotive products were assessed in the White Bear Lake Area communities, and 28 of these already met MnTAP's criteria for safer products. After testing and approving samples of alternative products, 7 substitutions were made, resulting in 35 Ibs of HAPs and 300 Ibs of VOCs eliminated from the community each year. In addition, 10 businesses are still evaluating samples and deciding if they will switch to the recommended alternatives. In cases where products were not adopted, increased cost was the most commonly cited reason.



"What a great and educational experience it was to have a MnTAP intern like Melody reside with us for the summer. She amazed me with her tenacity in taking a project that she knew little about, and then ending up with the empirical data collected from all of her visits and interviews with auto shops. It was an important project that included showing safer products than can be used in their daily business. With White Bear Lake currently dealing with a business that exposed surrounding neighborhoods to high TCE levels, it was timely and well received information.

> ~ Maureen Francis Office Manager White Bear Lake Chamber of Commerce

Recommendation	HAPs Reduction	VOCs Reduction	Ground-level Ozone Reduction	Status
Switch to Safer Automotive Products	35 lbs per year	300 lbs per year	260 lbs per year	Implemented

MnTAP Advisor: Jane Paulson, Senior Engineer