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Sustainable grounds care: expanding the role of the business community in reducing NPS pollution

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Abstract Text:

Rugg Brook and Stevens Brook are impaired urbanized watersheds of approximately 21 square miles in St. Albans, VT. These waterways transport excess nutrients, lawn chemicals, and pathogens into Lake Champlain's St Albans Bay. A long history of excess phosphorus in the bay causes seasonal (occasionally toxic) algal blooms that affect aquatic community health, waterfront home values, and recreational use of the bay. Urban and suburban runoff contribute approximately 18% of phosphorus inputs to St. Albans Bay.

The St. Albans Good Stewards Initiative sought to reduce phosphorus and other NPS pollutants from business and institutional properties in the watersheds. The project determined how grounds care contributed to NPS pollution, identified factors influencing property managers' grounds care decisions, and provided assistance to promote adoption or maintenance of sustainable grounds care

Based on parcel size and grounds management, we identified 45 priority businesses and institutional properties. We contacted the property managers to complete a grounds care survey, and to arrange one-on-one meetings to discuss sustainable grounds care. Twenty three surveys (51%) were returned.

Survey results showed fertilizer and pesticide use on business and institutional properties was not widespread. Approximately 190 acres were independently using some form of low-input grounds care. However, 17 of 23 respondents wanted to learn more about improved grounds care practices, were willing to modify current their practices, and made a commitment to adopt, maintain or improve sustainable grounds care. Approximately 124 acres were committed to the project.

Cost, ease of implementation, appearance, water quality, and time required were important constraints to adoption/of sustainable grounds care. Technical assistance resolved many of these issues. Most respondents were concerned with the state of the bay's health, and supported business community participation in actions to reduce NPS pollution in the watersheds.

Impact Statement:

Many business and institutional property managers in Stevens and Rugg brook watersheds use some low input grounds care, a reflection of the effectiveness of water quality awareness efforts. However, most felt that they lacked sufficient information on best practices and were eager to improve grounds care practices to further reduce excess nutrient and other NPS pollutants. The training and assistance provided to property managers lowered barriers to adopting or maintaining BMP for sustainable grounds care on over 128 acres (65%) of priority commercial/institutional lawn area in the watersheds. BMP will reduce stormwater runoff volume; reduce erosion and sediment transport, and ultimately phosphorous loads to the bay.