



## Idaho Department of Environmental Quality Pollution Prevention Champion

### Weiser Water Quality Protection Project

Weiser, Idaho

2004

## Environmental Commitment

The Weiser Water Quality Protection Project is a community-based partnership designed to protect water quality in the Weiser area by reducing nutrient impacts from local farming operations.

## Pollution Prevention Success

### Community Action

Nitrate is the most widespread groundwater contaminant in Idaho and the most common contaminant found in drinking water. Nitrates in drinking water are a concern because they can affect human health and the environment. It is estimated that 93% of nitrates in Idaho's water are from agricultural operations, where nitrates are added to increase yield and production. However, often plants cannot use all the nitrates that are applied and excess nitrates leach into groundwater or are washed into surface water. The Weiser area is the number one nitrate priority area in Idaho.

The Weiser Water Quality Protection Project is a partnership among government agencies, local farmers, and community leaders. The Soil Conservation District received funding to do a demonstration project. Partners include the Weiser River Soil Conservation District, Idaho Department of Agriculture, University of Idaho-Agricultural Extension Office, Natural Resources Conservation Service and local farmers. This partnership helps local farmers implement best management practices (BMPs) to reduce fertilizer use, conserve water, and minimize runoff. BMPs are then shared with other farmers throughout the area. BMPs include:

### Filter Strips

Filter strips are bands of vegetation planted at the bottom of fields, designed to capture and filter runoff water, thereby reducing contaminant levels in the runoff water. Decreases in suspended solids and phosphorus were recorded for both sugar beet and onion crops where filter strips were used.

### Drip irrigation

Farmers in the Weiser area are experimenting with drip irrigation rather than traditional surface irrigation methods. This allows for greater control of the water application, conserves water and produces less runoff.

### Surge irrigation

Surge irrigation floods different sections of a field at different times, allowing for greater control over the water flow, and reducing runoff and infiltration.

### Monitoring techniques

Monitoring techniques such as lysimeters, moisture sensors, and monitoring wells are used to collect data on the nitrogen content and water present in soils. Farmers use the data to make better decisions on when to irrigate, how much water to use, and when to apply fertilizer. For example, moisture sensors measure soil water content and have shown that adequate moisture may be available even if the area looks dry. As a result, farmers can conserve water and save money. One local farmer reported his highest onion yield since 1993 in the field using the monitoring techniques.

Sediment basins remove 65% to 75% of the sediment that would normally flow into surface water and are being tested by several farmers.

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