

Lower Umatilla Basin Groundwater Management Area Plan

Introduction

The Oregon Department of Environmental Quality (DEQ) declared the Lower Umatilla Basin a Groundwater Management Area in 1990 because nitrate-nitrogen concentrations exceed 10 mg/liter (the federal safe drinking water standard) in many area groundwater samples. In 1997, DEQ approved an Action Plan to satisfy the requirements to address groundwater contamination under the Groundwater Protection Act.

The Groundwater Management Area Committee has chosen to implement the Action Plan on a voluntary basis – recognizing that individuals, given adequate information and encouragement, will take positive actions and adopt or modify practices and activities to reduce nitrate-nitrogen loading to groundwater.

The technical investigation initially identified five area activities contributing to nitrate contamination of the groundwater:

- 1) Irrigated agriculture;
- 2) Food processing water;
- 3) Confined animal feeding operations;
- 4) Domestic sewage where septic systems occur in high densities; and
- 5) The U.S. Army Umatilla Chemical Depot's washout lagoons.

Recommended Management Practices

Irrigated Agriculture

- 1) Irrigation Management – balance irrigation applications with crop needs and soil characteristics throughout the growing season.
 - Water testing
 - Efficient irrigation systems
 - Irrigation scheduling
 - Maintain irrigation equipment
- 2) Nutrient Management – balance manure and fertilizer applications with crop needs throughout the growing season.
 - Apply when plants can use nutrients
 - Minimize water and soil erosion
 - Account for nutrient value of manure

Rural Residential Development

- 1) Septic Systems – test well water for nitrate and fecal coliform contamination
- 2) Landscaping, Lawns and Gardens – prevent over-fertilizing and over-watering
- 3) Wells – check for proper well casing and seals
- 4) Animal pastures – overgrazing reduces plants ability to utilize nutrients; excess manure allows nutrients to accumulate in soil

Confined Animal Feeding Operations

- 1) Surface Water Management – divert clean water and stormwater from feedyard facilities; divert runoff from waterways
- 2) Waste Water Effluent Management – utilize properly constructed lagoons or holding ponds and apply waste at agronomic rates
- 3) Solid Manure Management – store properly and analyze for nutrient value before applying
- 4) Feedyard Surface Management – direct runoff to proper effluent facilities; ensure and maintain surface seal

For more information please contact:

Tom Straughan-ODA Water Quality Planner 541-278-6721

Ray Denny-Umatilla County SWCD 541-276-8170

Phil Richerson- DEQ 541-278-4604

Ron Rickman - Chairman LUB Advisory Committee 276-1524

It's everyone's job



Overview - Umatilla