

Agricultural Working Group Control Measures

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Agenda:

- Introductions / Sign-In
- Review of Work Group Responsibilities
- See Table 1 and Table 2 on back page – BMP costs and efficiencies
- Group Discussion / Questions:
 - Based on 2001 land use map and perennial streams. Land Use showed pasture near streams in Almond Creek; is livestock really there?
 - What BMPs exist or are planned in the watershed?
 - **Are there other BMPs that should be explored?** For example, upstream James River segment is now delisted (from Bernards Creek to just above City). Might agricultural BMPs within that area be considered to help reduce the bacteria which this segment contributes to lower impairments? If so, what areas and what BMPs?
 - **Schedule Next Agriculture WG Meeting/Location:** _____

Agricultural Working Group Control Measures

For Your Information

Potential Agricultural Control Measures

Table 1. Potential control measure efficiencies in removing *E. coli*.

Control Measure	Bacteria Removal Efficiency
<i>Direct Reduction Efficiency</i>	
Streamside Fencing	100%
Corrected Straight-pipe	100%
Repaired Septic System	100%
Pet Waste Education Program	75%
Pet Waste Composters	100%
<i>Buffer Efficiency*</i>	
Vegetated Buffer	50%
<i>Runoff Treatment Efficiency</i>	
Improved Pasture Management	50%
Loafing Lot Management.	40%
Manure Incorporation	90%
Retention Ponds	80%

*Buffer efficiencies shown here are applied to runoff from twice the buffer area upstream of the buffer. Additional reductions result from the conversion of land from its existing condition to the buffer area.

Table 2. Agricultural control measure costs.

Agricultural Control Measure	Unit	Cost per Unit
Grazing Land Protection System (LE-1T)	System	\$8,855
Stream Protection System (LE-2T)	System	\$8,855
Streamside Fence Maintenance	Foot	\$3.50
Improved Pasture Management	Acres	\$154
Loafing Lot Management	System	\$10,000
Manure Incorporation	Acres	\$18
Vegetated Buffers - Cropland	Acres	\$360
Retention Ponds – Pasture	Acres – Treated	\$138