

# Livestock Watering FACTSHEET



BRITISH  
COLUMBIA  
Ministry of Agriculture and Lands

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## SOURCES FOR LIVESTOCK WATER

This Factsheet compares water sources and the development methods, advantages and disadvantages.

### Water Sources

Water for livestock is usually provided by low cost systems using ground or surface water. These systems can allow water use either at the source or by moving water to stock troughs. Water sources can vary from simple dugouts to springs with gravity distribution or pumped systems, or to streams or lakes. The following table looks at the three types of water sources and briefly compares access methods, as well as advantages and disadvantages of each method.

Refer to other *Livestock Watering Factsheets* in this *Handbook* series for details on developing these water sources.

### Water Distribution

Although livestock may graze a mile or more from water, good management of forage is usually combined with water distribution. Most surface water sources can be used by livestock at or near where the water occurs. Ground water sources require the water be pumped to the surface for use. Water harvesters (precipitation collectors) can usually be located near the livestock area.

Water can be lifted to higher areas by pumping, although energy sources in remote areas are limited. Gas or diesel pumping is expensive and alternate energy (wind & solar) may be economic only for low power systems. Other pumping options include stream-powered or livestock-powered pumps.

Refer to other *Livestock Watering Factsheets* in this *Handbook* series for details on constructing a distribution system. This information should be used when comparing water sources to get a complete comparison of the installed systems.

### Water Pollution

Unrestricted access to a watercourse may cause contamination. In low density grazing situations, such as in many cattle range areas, concerns are generally low. With concentrated access, manure buildup will cause problems. For this reason, care must be used in designing direct water access systems. Fenced off surface water with the use of stock troughs should be considered where practical.

Refer to other *Livestock Watering Factsheets* in this *Handbook* series for details on direct access to [watercourses](#) by livestock when considering this type of system.

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## COMPARING SOURCES FOR LIVESTOCK WATER

Concern ?		Water Access	Advantages	Disadvantages	
Ground Water Factsheet #590.303-2	water source not usually impacted by livestock use	well	all <ul style="list-style-type: none"> <li>● quantity usually more reliable than surface water</li> <li>● quality usually not affected by surface contaminants</li> </ul>	<ul style="list-style-type: none"> <li>● wells require power to pump</li> </ul>	
			shallow, dug well <ul style="list-style-type: none"> <li>● water sources are somewhat more reliable than surface water</li> </ul>	<ul style="list-style-type: none"> <li>● somewhat more risky to find than surface water</li> </ul>	
			deep, drilled well <ul style="list-style-type: none"> <li>● water source often very reliable</li> <li>● least likely to be affected by surface contaminants</li> </ul>	<ul style="list-style-type: none"> <li>● often risky to find and expensive to develop</li> </ul>	
Surface Water Factsheet #590.303-3	water source may be impacted by direct livestock access to water source	dugout	bulldozed or excavated <ul style="list-style-type: none"> <li>● inexpensive</li> <li>● livestock can use water directly</li> </ul>	<ul style="list-style-type: none"> <li>● usually seasonal use only</li> <li>● supply may be variable year to year</li> <li>● if directly used, livestock can impact water quality and damage earthen sides</li> </ul>	
		spring	seep	water collection <ul style="list-style-type: none"> <li>● little surface impact on water quality</li> </ul>	<ul style="list-style-type: none"> <li>● water must be collected</li> <li>● flow may be difficult to measure</li> <li>● possible seasonal flow variation</li> <li>● need to use via a trough</li> </ul>
			point	single water point <ul style="list-style-type: none"> <li>● little surface impact on water quality</li> <li>● flow easy to measure</li> <li>● collection is simple</li> </ul>	<ul style="list-style-type: none"> <li>● expect some seasonal variation</li> <li>● usually need to use via a trough</li> </ul>
		creek	controlled access, pump, or diversion <ul style="list-style-type: none"> <li>● historic creek flows may be available to determine reliability of water</li> </ul>	<ul style="list-style-type: none"> <li>● livestock can impact water quality - fishery &amp; pollution concerns</li> <li>● freshet flows may deteriorate water quality &amp; impact intake works</li> </ul>	
pond, lake	controlled access or pump <ul style="list-style-type: none"> <li>● water supply is known</li> <li>● water can be used where its needed</li> </ul>	<ul style="list-style-type: none"> <li>● pollution concerns</li> <li>● pumping energy required</li> <li>● added costs</li> <li>● frost protection difficult</li> </ul>			
Precipitation Factsheet #590.303-4	water source not impacted by livestock	water harvester	catch and store precipitation <ul style="list-style-type: none"> <li>● can locate where needed</li> <li>● can water otherwise dry sites</li> </ul>	<ul style="list-style-type: none"> <li>● cost per gallon is high</li> </ul>	