

PROTECTING WATER QUALITY



WHAT WE DO TO PROTECT WATER QUALITY

- **Salinity:** Depending on the type of crop grown and the farm soils, salinity can play a role in crop-yields. We monitor the salinity of the water in our canals, drains, and in the well-water that is pumped into EBID facilities. Real-time data from those monitoring sites is sent via remote telemetry units (RTU) installed throughout the District.
- **Bacteria:** Many District farmers produce crops that are consumed raw. Highly publicized incidents of E. coli contamination have resulted in costly recalls and restrictions on interstate transport. The financial consequences of such contamination events are severe and can be devastating for producers. In response, the New Mexico Environment Department has imposed limits on new sources of E. coli within the District. Although bacterial monitoring is costly and time-consuming, EBID conducts routine sampling of streams, canals, and drains, with particular emphasis during periods of stormwater and flood runoff.
- **Sediment:** The District is dedicated to providing the best possible water quality. With grant funding, EBID is developing innovative retention facilities to capture and store clean stormwater runoff in selected drains. These systems allow sediment to settle before the water is either reused by the District or absorbed into the aquifer. This approach creates a new, environmentally friendly water source for the District.

SHOULD FARMERS USE MANURE?

The answer is YES!



- **Benefits:** The right animal wastes can be a valuable source of organic matter that improves soil quality and reduces soil erosion and runoff. The use of manure is a means of recycling essential nutrients for crop production, reducing the use of energy-intensive fertilizers and providing a means of recycling and sequestering carbon in the soil.
- **Proper Use and Storage:** Farmers should order, store, and use manure carefully as it is a source of bacterial pathogens that may limit the use of surface water. Bacteria present in a soil-water mixture, can survive for extended periods and migrate dozens of feet downward potentially contaminating groundwater. Manure is also a source of nutrients comprised of excess nitrogen and phosphorus compounds which can degrade both surface and groundwater quality. Don't forget your neighbors, as manure, particularly when fully decomposed or originating from certain animal sources, can produce objectionable odors.
- **Prevent Contamination:** In our climate, spring winds can carry manure thousands of feet resulting in pollution of water in District canals and drains. Flies can also become a nuisance with "ripe" newly deposited manure. Both can pose a health concern to area homes.
- **Precautions:** Farmers who grow vegetables should be particularly careful. Most bacteria in water die within three to four days, but once incorporated in farm soils they have the ability to re-grow for weeks and sometimes months. We recommend that vegetable farmers not accept animal wastes unless composted and heat-treated. Pecan farmers should also use care in selecting and applying manure, as pecans are often handled and consumed in ways that may involve direct contact with the mouth.



PROTECTING WATER QUALITY

WHAT FARMERS CAN DO TO PROTECT WATER QUALITY

The District needs your help in protecting the bacterial quality of the water supply we all share. Listed below are recommended best practices, including key DOs and DON'Ts.

<p>DO:</p> 	<ol style="list-style-type: none">1. DO apply any animal wastes to your farm soils as soon as possible after delivery so the material will not be spread by winds.2. DO wind-row, mix, or otherwise stack manure when you are unable to use it soon after receiving it.3. DO notify EBID if you know of any potentially harmful uses of animal waste products.
<p>DO NOT:</p> 	<ol style="list-style-type: none">1. DO NOT order or accept very wet manure that will flow across your property and onto roadways and drains.2. DO NOT accept wastes that have noticeable amounts of animal parts, bones, or feathers.3. DO NOT order or accept raw or ripe manure as it will attract flies.4. DO NOT allow truck drivers to discharge manure onto District right-of-ways, particularly on the ditch banks along canals and drains owned by EBID. Ensure that animal wastes are off loaded onto the property you own, not that of the County, the District, or a neighbor.

GOOD MANAGEMENT PRACTICES

USING ANIMAL WASTES ON FARMS:

The following management practices are intended to protect water quality, enhance soil fertility, improve soil structure, and conserve valuable resources for beneficial use.

1. Do not use more waste than the water budget allows, particularly where a shallow groundwater table is present or in areas prone to runoff.
2. Limit manure-water application to the volume of liquid that can be stored in the root zone.
3. Minimize the impact of odors from land-applied wastes by making application at times when temperatures are cool and wind direction is away from neighbors.
4. Animal wastes contain pathogens and other disease-causing organisms. Utilize wastes in a manner that minimizes their disease potential.
5. Priority areas for land application of wastes should be on flat-lands or gentle slopes located as far as possible from waterways.
6. Apply wastes on pastures and alfalfa lands soon after cutting or grazing, before re-growth has occurred.
7. Minimize environmental impact of land-applied wastes by limiting the quantity of high nitrogen animal wastes.