

Agenda Item No. 3(b)

The Punjab Environmental Standard for Irrigation Water

These standards apply to the surface waters that are primarily used for agricultural irrigation and for livestock.

Parameter		Unit	Standard	Remarks
Salinity	Total Dissolved Solids (TDS) mg/L	mg/L	1000	The values depend on 1000 various factors; can be relaxed. See "Conditions of Water Use and Irrigation Water Quality" below for details.
	EC at 25 °C	dS/m	1.5	
SAR			5	
RSC		me/L	1.25	
Boron		mg/L	1.0	
Chloride		mg/L	100	
pH		Units	6.5 - 8.4	
BOD		mg/L	8.0	
Dissolved Oxygen (DO)		mg/L	>4.0	
Coliform bacteria (fecal)		No./100mL	1000	
Aluminum		mg/L	5.0	
Arsenic		mg/L	0.10	
Beryllium		mg/L	0.10	
Cadmium		mg/L	0.01	
Chromium		mg/L	0.01	
Cobalt		mg/L	0.05	
Copper		mg/L	0.20	
Cyanide		mg/L	1.0	
Fluoride		mg/L	1.0	
Iron		mg/L	5.0	
Lead		mg/L	0.1	Livestock

Lithium	mg/L	2.5	
Manganese	mg/L	0.20	
Mercury	mg/L	0.01	Livestock
Molybdenum	mg/L	0.01	
Nickel	mg/L	0.20	
Selenium	mg/L	0.02	
Vanadium	mg/L	0.10	
Zinc	mg/L	2.0	
Toxic substances and organic pollutants	The water should not contain toxic substances and other organic compounds in quantities that can accumulate in the soils to such a level as to result in the uptake by the crop and thus may be detrimental to public health or impair the quality of water for use in agriculture and livestock watering.		

Conditions of Water Use and Irrigation Water Quality

Water Quality Guideline			Conditions of Use
Water Quality Parameter		Guideline Value	
Salinity	TDS or EC	2000 mg/L or 3.0 dS/m	Coarse textured soils
SAR		10	
RSC		2.5 me/L	
Salinity	TDS or EC	1500 mg/L or 2.3 dS/m	Medium textured soils.
SAR		8	
RSC		2.3 me/L	
Salinity	TDS or EC	1000 mg/L or 1.5 dS/m	Fine textured soils
SAR		8	
RSC		1.25 me/L	