

## 2 Quality Management System

### 2.1 Water Treatment

The following table provides a summary of the water treatment process for each water sampling locality and chemicals added during the water treatment process.

**Table 2-1: Water Treatment Process**

Water Treatment Plant Location	Water Sampling Locality	Treatment Process					Added Substances							
		Clarification	Filtration	Taste / odour / algae toxin removal	pH correction	Disinfection	Alum / alum chlorhydrate	Polyelectrolyte	Activated Carbon	Ozone	Lime/soda ash/caustic soda Carbon dioxide Sulphuric Acid	Chlorine	Ammonia	Fluoride
Axedale <sup>1</sup>	Axedale		✓		✓	✓	✓	✓			✓	✓		
Bendigo	Bendigo Northern		m	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
	Bendigo Southern													
	Bendigo Spring Gully													
	Epsom - Huntly													
	Big Hill													
	Junortoun													
	Maiden Gully - Marong													
	Strathfieldsaye													
Boort	Boort	✓	✓		✓	✓	✓	✓			✓	✓		
Bridgewater	Bridgewater	✓	✓	✓	✓	✓	✓		p		✓	✓	✓	
	Inglewood													
Castlemaine	Castlemaine		m	✓	✓	✓	✓		✓	✓	✓	✓	✓	
	Fryerstown													
	Guildford													
	Harcourt													
	Maldon													
	Newstead													
	Taradale - Elphinstone													
Cohuna	Cohuna (Rural)	✓	✓	✓	✓	✓	✓	✓			✓	✓		
	Cohuna (Urban)													
Echuca	Echuca	✓	✓	✓	✓	✓	✓	p	p		✓	✓		✓
Elmore <sup>3</sup>	Elmore				✓	✓					✓			
Goornong	Goornong	✓	✓		✓	✓	✓				✓	✓		
Gunbower	Gunbower		m			✓						✓		
Heathcote	Heathcote	✓	✓		✓	✓	✓	✓			✓	✓	✓	
	Tooborac													
Korong Vale	Korong Vale	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	
	Wedderburn													
Kyneton	Kyneton		m	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
	Malmsbury													
	Tylden													
Laanecoorie	Bealiba	✓	✓	✓	✓	✓	✓	✓	p		✓	✓	✓	
	Dunolly													
	Laanecoorie													
	Tarnagulla													
Leitchville	Leitchville (Rural)	✓	✓		✓	✓	✓		p		✓	✓		
	Leitchville (Urban)													
Lockington	Lockington	✓	✓		✓	✓	✓	p		✓	✓			
Pyramid Hill	Pyramid Hill	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			

Water Treatment Plant Location	Water Sampling Locality	Treatment Process					Added Substances							
		Clarification	Filtration	Taste / odour / algae toxin removal	pH correction	Disinfection	Alum / alum chlorhydrate	Polyelectrolyte	Activated Carbon	Ozone	Lime/soda ash/caustic soda	Carbon dioxide Sulphuric Acid	Chlorine	Ammonia
Raywood <sup>2</sup>	Raywood	✓	✓		✓	✓	✓				✓	✓		
Rochester	Rochester	✓	✓		✓	✓	✓	p			✓	✓		
Serpentine	Serpentine	✓	✓	✓	✓	✓	✓	✓	p		✓	✓	✓	
Trentham	Trentham		m	✓		✓	p		✓	✓		✓	✓	

Legend: p = periodic as required,  
m = micro filtered

- Note:
1. Axedale WTP has also received water supplied from Bendigo (Junortoun & Strathfieldsaye) during 2006/07.
  2. Raywood WTP has also received water from Bendigo (Northern) during 2006/07
  3. Elmore has an UV disinfection process

## 2.1.1 Issues

### Salinity

High salinity or Electrical Conductivity (EC) is an ongoing concern for water treatment and water quality in North Central Victoria and the Coliban Water region.

Projects to address elevated EC levels at Bridgewater/Inglewood, the Laanecoorie system, Goornong and Serpentine will be included in the next Water Plan.

### Water Treatment Improvements

Following the Water Quality Risk Assessments undertaken as part of the Safe Drinking Water Act 2003's Water Quality Risk Management Plans, Coliban Water has identified an extensive list of opportunities for improvements to all our Water Treatment Facilities.

A Water Quality Improvement Project commenced in March 2006 to upgrade or replace the following water treatment plants: Axedale, Boort, Bridgewater/Inglewood, Cohuna, Echuca, Elmore, Goornong, Gunbower, Heathcote, Korong Vale, Laanecoorie, Leitchville, Lockington, Pyramid Hill, Raywood, Rochester, Serpentine, & Trentham.

Treated water quality will be enhanced by upgrading of facilities and assets and managing risk by increasing control over treatment processes. Plants expected to be decommissioned include Bridgewater, Goornong, Gunbower and Axedale Water Treatment Plants. It is planned that Gunbower will be supplied from Leitchville Water Treatment Plant, Axedale, Bridgewater & Goornong will be serviced from the Bendigo water supply system.