



Government of Western Australia
Department of Health

EHB-00978
Richard Theobald (9388 4967)

Mr Keith White
Chief Executive Officer
Busselton Water
P O Box 57
BUSSELTON WA 6280

MIB ✓ March 2010

BUSSELTON WATER			
No Resp. Req'd	Actioned	B/Fwd	(circle)
File: <u>OL3</u>			
10 MAR 2010			
Responsible Officer: <u>KW</u>			
Initials of Resp. Officer:			
Record Number: <u>1003145</u>			
Transit Officer:			

Dear Mr White

DISINFECTION OF BUSSELTON'S DRINKING WATER SUPPLY

The most common health risk associated with drinking water is the presence of microorganisms that can cause disease. If drinking water is not adequately tested and treated, any microbiological contamination will rapidly disperse throughout a town or city's drinking water distribution system.

Historically, there have been many examples of large-scale drinking water contamination events, almost all resulting in death and great suffering. On every occasion the cause has been either poor or inadequate disinfection or treatment.

It is appreciated that in response to community views Busselton Water Board has been restricted in the selection and use of disinfection systems within its drinking water distribution system.

Currently the Busselton Water Board is able to use ultraviolet light disinfection systems to control any microbiological contamination. This has been possible as the source of water has been microbiologically sound and the distribution system has been extremely short (from bore to consumer).

However, the growth of Busselton has now changed the water distribution system. It is now likely that water will be held in distribution mains for extended periods of time and in some areas it is possible for water to circulate around the network. As growth continues the increased complexity of the distribution system will place additional pressure on the integrity and safety of your community's drinking water supply.

Throughout the world, health and water authorities who maintain complex drinking water distribution systems have developed and applied a series of barriers designed to prevent contamination events from occurring. An essential part of the barrier approach is the disinfection system.

Environmental Health
All Correspondence: PO Box 8172 Perth Business Centre Western Australia 6849
Grace Vaughan House 227 Stubbs Terrace Shenton Park WA 6008
Telephone (08) 9388 4999 Fax (08) 9388 4955
wa.gov.au
ABN 28 684 750 332

The most commonly used disinfection system used around the world, including Australia, is chlorine. Chlorine provides the most lasting and effective protection from the treatment plant to the customer's tap. This protection is particularly important in Western Australia where long pipelines and high water temperatures create the potential for the growth of harmful microorganisms within the distribution system. The Department of Health supports and requires the use of chlorine or an equivalent residual drinking water disinfectant in all complex drinking water distribution systems. Alternative disinfectants such as ozone and ultra violet light do not provide an ongoing protection from possible recontamination after treatment.

The Busselton Water Board is reminded that it has a duty of care to ensure that an effective barrier is maintained to prevent the potential for the entry or transmission of micro-organisms throughout your community's drinking water distribution system from bore to consumer. It is now requested that the Busselton Water Board demonstrate how in system contamination and transmission of micro-organisms will be prevented and what form of chemical barrier treatment system will be used.

If you would like any discuss this matter further please do not hesitate to contact me on 9388 4967.

Yours sincerely

A handwritten signature in black ink, appearing to read 'R. Theobald', with a long horizontal flourish at the end.

Richard Theobald
Manager
Water Unit
Public Health Division
5 March 2010

S:\EHD\Water Unit\DRINKING\Typing\General Correspondence\0304tr1a.doc