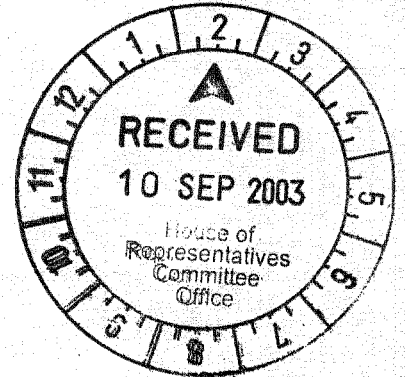


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SUBMISSION NO. 499



RECYCLED WATER RESOURCE

FOR

FIGHTING BUSH FIRES

IN

FIRE PRONE AREAS

SUCH AS CANBERRA & BLUE MOUNTAINS

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(A.R.Wake)
Author

RECYCLED WATER RESOURCE FOR FIRE FIGHTING

BLUE MOUNTAINS AND OTHER

FIRE PRONE AREAS

Introduction.

When fighting any fires, the main resource required to fight the fire is WATER - and in great quantity and a reliable source.

The reliable resource is untreated Sewerage Effluent in the townships, villages etc in mountainous and difficult terrain.

Proposal

May I propose that recycled Sewerage Effluent be treated and made available in storage resevoirs in all areas subject and prone to the bushfire problem - and for uses as follows:-

1. Treat the effluent to a high standard and store in strategically sited resevoirs with high pressure lines to the townships, villages etc or to wherever the homes are sited. Pathogens and nutrients are removed prior to storage.
2. Fire hydrants strategically sited in the fire prone areas, giving firefighters higher pressure as is required.
3. Filling of resevoirs would be on going.
4. Nutrients and Pathogens would need to be removed prior to storage of the treated effluent in resevoirs.
5. Other uses of the recycled water would be:-
 - (a) Hosing down driveways
 - (b) Automatic high pressure Fire Sprinklers on household roofs to be activated when fire alerts are notified
 - (c) Use recycled effluent for flushing toilets.
 - (d) Use recycled water for gardening, lawns etc instead of potable water which is in short supply.

Availability of Recycled Sewerage Effluent

Sewerage Treatment plants are located in townships, villages and cities etc and effluent from those plants could be treated by a system which is:-

- (1) designed by Australian scientists
- (2) is very economical and a fraction of cost of imported systems - in fact a system treating one million litres is being installed in a N,S,W, venue at a cost of \$200,000-larger systems can be built.
- (3) Does not use any chemicals
- (4) Requires very little maintenance,
- (5) Has a predicted lifespan of at least 20 years
- (6) Carries manufacturers guarantee of five (5) years

For instance I understand the Blue Mountains population is served by a number of sewerage plants producing from 10 to 12 million litres of effluent daily -what a great resource for fire fighting and for other uses if this resource was recycled ?.

I have obtained information on the system where the effluent is treated by this economical system without chemicals to a standard where *Escherichia coli* is reduced to "less than 10 per mL". Nutrient levels are reduced to a level of the approved standards of National and State Water Quality Guidelines and Policies.

Current Water Resources on all Fire Situations for Fire Fighting

Television reports of the fires - one could see that large quantities of water- preferably recycled - is an absolute necessity to fight and prevent fires developing and, devouring homes.

Experience in Blue Mountains Fire Storm

Some years ago my family and I experienced the trauma of a fire storm on the Blue Mountains - luckily our home was spared.

Nothing could have been done to control that fire at the time and obviously such fires will return in two, three, four or five years when climatic circumstances will emulate the weather pattern of recent times and I am hopeful that we will have time to be well prepared for the next fire storm.

Heavy Lift Water Bombing Helicopters and Recycled Water Reservoirs

The Recycled Water Reservoirs, which can be of concrete construction or earth pond reservoirs, would be ideal for the large helicopters to hover while drawing up a full load and then deliver the water within a few minutes on any nearby fire. Saving of aircraft travel time to and from fire targets is very important in such situations. Fire is really the only target of the water bombing machine.

A number of large helicopters are now available for fire fighting one of which is the Bell 214 - this machine has the ability to draw up and carry 2800 litres from any type of recycled reservoir and deliver to the fire within a few minutes. We now have smaller machines - with less carrying capacity but still able to make an impact on any fire.

Continuous Supply of Recycled Water

As is mentioned previously, the filling of the re use reservoirs would be on-going with the operation of the Sewerage systems, Pressure on the potable water reservoirs would be reduced and this potable water would not be used for fire fighting except in absolute emergencies.

Continuos Supply of Recycled Water (Continued)

I look forward to consideration being given to recycled effluent resevoirs being strategically located where the need is greatest to provide high pressure recycled water and pipelines for uses as detailed in this brief- not only in the Blue Mountains area but in townships which may be subject to the ravages of bushfires.

I have reports of potable water resevoirs running dry during both the Blue Mountains and Canberra fire storms. This would not generally be a problem with recycled effluent resevoirs.

Further information

Please call me on telephone number (07) 4771 - 3419- Facsimile (07) 4721 - 4404 or to my address 6 Scully Street, West End, TOWNSVILLE QLD 4810 If further information is required. My Email is awake@Getonit.net.au.

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