**VICTORIAN CIVIL AND ADMINISTRATIVE TRIBUNAL**

**CIVIL DIVISION**

VCAT REFERENCE NO.BP471/2016

**BUILDING AND PROPERTY LIST**

## CATCHWORDS

Claims brought by the applicants under sections 15 and 16 of the Water Act 1989. The applicants own a small farm in Kilmore East Victoria. The respondent managed a large pine plantation on the adjacent property. The pine plantation was completely burned in the Black Saturday fire in 2009. Following the fire, the respondent salvage harvested the pine plantation and planted a blue gum plantation. The applicants bring claims for damages and other relief alleging the respondent caused, or interfered with, flows of water onto their property, and/or the caused pollution (chemical and/or sediment pollution) of water flowing onto their property and into a dam on their property. Claims dismissed.

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| **APPLICANTS** | Catherine Margaret Speechley and Leigh Speechley |
| **RESPONDENT** | Midway Ltd (ACN 005 160 044) |
| **WHERE HELD** | Melbourne |
| **BEFORE** | Senior Member M Farrelly |
| **HEARING TYPE** | Hearing |
| **DATE OF HEARING** | May 29, 30, 31, June 1, 2, 5, 6, 7, 13, 14 and July 3 2017 |
| **DATE OF ORDER** | 17 July 2017 |
| **CITATION** | Speechley v Midway Ltd (Building and Property) [2017] VCAT 1014 |

## ORDERS

1. The applicants' claim in respect of personal injury, being the item numbered 1 in paragraph 5 in the applicants' Points of Claim, is withdrawn.
2. To the extent the applicants bring claims under the *Environment Protection Act* 1970, such claims are struck out.
3. The applicants' claims are, otherwise, dismissed.
4. Costs reserved with liberty to apply. **I direct the Principal Registrar to list any application for costs before Senior Member M Farrelly, allowing a half day.**

**SENIOR MEMBER M. FARRELLY**

**APPEARANCES:**

| | |
|---|---|
| For the Applicants | Catherine Margaret Speechley and Leigh Speechley in person |
| For the Respondent | Mr P Chiappi of Counsel |

## REASONS

### INTRODUCTION

1 The applicants, Mrs and Mr Speechley, bring a claim against the respondent ("**Midway**") under the *Water Act* 1989 ('**the Water Act'**).

2 The applicants own a property of approximately 120 hectares in Kilmore East Victoria. They purchased the property in 1993 and, since that time, have lived there and operated a small beef cattle farm. The property generally slopes from west to east. In addition to a number of small dams, there is one large dam ('**the dam**') covering approximately 2.5 hectares in the south-east corner of the property. The dam is walled at its northern end. Beyond the wall, a well-defined creek falls gently towards the northern boundary of the property. Dam overflow is directed into this creek primarily via the north-east corner of the dam.

3 Adjacent to the property on its southern side is a large property of approximate 516 hectares ("**Midway's property**"). Midway's property, bordered on its eastern side by the Hume freeway, has a landform pattern of crests, steep hills and moderate slopes that fall to well defined drainage or creek lines which generally flow to the north and the east. The steeper slopes are towards the west, and the more moderate slopes towards the north-east. There are four major stream outlets from the property, two of which converge at the moderately sloped north-east corner of the property, just south of the dam on the applicants' property. Water flowing down these two streams flows into the dam.

4 At the time the applicants purchased their property, Midway's property, then owned by 'SCI Forests Pty Ltd', contained a radiata pine plantation covering approximately 400 hectares which had been planted between 1981 and 1986. Most of the plantation was due to reach harvesting age in around 2010. Midway Plantations Pty Ltd purchased the property in 1995 and, since that time, its related entity Midway, the respondent in this proceeding, has managed the property and the plantation operations.

5 On 7 February 2009, a date now commonly referred to as 'Black Saturday', there were a number of fierce bushfires throughout Victoria. One such fire destroyed the pine plantation. The fire took the treetop canopy and all the plantation trees were killed. Save for a few areas at the bottom of gullies, all ground level vegetation/organic matter was also killed.

6 Fortunately, the applicants' home was saved and all but two of their herd of approximately 70 cattle survived the fire. Vegetation and pasture on the applicants' land was burned and they had to use bailed feed for the cattle until the pastures renewed several months later. Most of the 8 km of fencing on the applicants' property was destroyed.

7 A dead pine plantation has some commercial harvest value. Between March and November 2009 Midway harvested the entire plantation. As part of the

logging operations, logging residue or 'slash' – that is branches and smaller commercially unviable tree trunks - were intentionally left scattered over the landscape as a means of lessening the impact of rainfall run-off across the landscape.

8 Midway decided to grow a blue gum plantation on its property, a crop with a shorter lifespan to harvest of approximately 10 to 12 years. The planting of blue gum seedlings across approximately 414 hectares occurred throughout the winter of 2010. Over three days from 30 April to 2 May 2010, just prior to the commencement of the planting operation, Midway used helicopters to spray the plantation site with chemical herbicides, one such chemical being 'simazine'.

9 Prior to 2010, Victoria had experienced an extended period of low rainfall/drought. The drought broke in 2010. Kilmore, like most of the state, experienced heavy, well above average, rainfall in the winter and spring of 2010 and the summer of 2011. The heavy rains swelled the water run-off across the Midway plantation. The two streams flowing to the north-east corner of Midway's property carried debris and sediment onto the applicants' property and into the dam.

10 The applicants say that Midway's harvesting and planting operations, and Midway's general lack of care in maintaining waterways after the fire, caused heavy flows of water, containing sediment and logging debris, to flow onto the property, into the dam and beyond. They say the heavy debris laden flows of water damaged fencing at the southern entry point to their property, and eventually caused the collapse of the dam bridge/overflow at the north-east corner of the dam. They say the increased flows of water caused heavy erosion along the waterways south and north of the dam. They say the dam water was polluted with the chemical simazine and sediment.

11 The applicants' concern as to pollution of the dam were amplified when, on 21 September 2010, they were informed of water test results obtained by the local Shire Council, the Mitchell Shire, which confirmed the presence of simazine in creek water entering the dam. They immediately stopped using the dam water for their farm, or for any other purpose, and have not used it since. Over the following 12 months or so, they also fenced off the dam and the stream south and north of the dam.

12 The applicants aired their complaints as to the pollution of the dam with a number of authorities, including the Victorian Environment Protection Authority (the "**EPA**"). The EPA inspected Midway's property and the applicants' property, and carried out further water sampling tests. The water tests confirmed traces of simazine, albeit at very low levels. Some water tests also indicated high levels of turbidity.

13 In May 2013 the EPA served a 'Clean Up Notice' on Midway requiring it to remove sediment from the dam. Later, in October 2013, the EPA served

on Midway a 'Pollution Abatement Notice' requiring Midway to undertake sediment control works to prevent discharge of sediment into waterways beyond the boundaries of Midway's property. Although Midway challenged the validity of both notices, and in the case of the Pollution Abatement Notice Midway brought its challenge to this Tribunal, Midway attended to:

a) various erosion protection / sediment control works on Midway's property; and

b) the removal and disposal of a very large quantity of sediment from the dam.

Midway says the total cost of such works, including consultants' and legal fees, exceeded $700,000.

14 The EPA approved the works carried out by Midway. In September 2014, the Pollution Abatement Notice was, pursuant to consent orders between the EPA and Midway, revoked. In May 2015, the EPA revoked the Clean Up Notice.

15 By application filed in the Tribunal on 21 April 2016, the applicants commenced this proceeding against Midway seeking compensatory damages and orders requiring Midway to attend to further clean up / erosion protection works.

## The Water Act and the Applicants' Claims

16 The applicants bring their claims under the Water Act, the relevant provisions being:

> **15. Civil liability for unauthorised taking or use of water or for unauthorised works**
>
> (1) A person who—
>
> (a) takes water in an unauthorised manner or in unauthorised quantities; or
>
> (b) uses water in an unauthorised manner or for an unauthorised purpose; or
>
> (c) pollutes water, whether or not authorised to do so; or
>
> (d) constructs, maintains or operates any unauthorised works—
>
> and by that act causes injury to any other person or damage to the property (whether real or personal) of any other person or causes any other person to suffer economic loss is liable to pay damages to that other person in respect of that injury or damage.
>
> (2) Paragraph (c) of subsection (1) does not apply to the discharge of saline matter in accordance with by-laws made under section 160(1)(d) of this Act or regulations made under section 324 of this Act and all other necessary authorisations.

(3) Paragraph (d) of subsection (1) does not apply to any injury, damage or loss to which section 16 applies.

**16 Liability arising out of flow of water etc.**

(1) If—

(a) there is a flow of water from the land of a person onto any other land; and

(b) that flow is not reasonable; and

(c) the water causes—

(i) injury to any other person; or

(ii) damage to the property (whether real or personal) of any other person; or

(iii) any other person to suffer economic loss—

the person who caused the flow is liable to pay damages to that other person in respect of that injury, damage or loss.

(2) If—

(a) a person interferes with a reasonable flow of water onto any land or by negligent conduct interferes with a flow of water onto any land which is not reasonable; and

(b) as a result of that interference water causes—

(i) injury to any other person; or

(ii) damage to the property (whether real or personal) of any other person; or

(iii) any other person to suffer economic loss—

the person who interfered with the flow is liable to pay damages to that other person in respect of that injury, damage or loss.

…

**19 Jurisdiction of Tribunal**

(1) The Tribunal has jurisdiction in relation to all causes of action (other than any claim for damages for personal injury) arising under sections 15(1), 16, 17(1) and 157(1) of this Act or at common law in respect of the escape of water from a private dam.

(3) In exercising jurisdiction conferred by subsection (1), the Tribunal—

(a) may by order, whether interim or final, grant an injunction (including one to prevent an act that has not yet taken place) if it is just and convenient to do so; or

(ab) may make an order for payment of a sum of money awarding damages in the nature of interest; or

(b) may make an order that is merely declaratory.

(3A) Nothing in subsection (3) takes away from or affects the Tribunal's powers under section 123 or 124 of the **Victorian Civil and Administrative Tribunal Act 1998**.

(4) In awarding damages in the nature of interest, the Tribunal may base the amount awarded on the interest rate fixed from time to time under section 2 of the **Penalty Interest Rates Act 1983** or on any lesser rate that it considers appropriate.

(5) The Tribunal may in respect of any works that give rise to a cause of action of a kind referred to in subsection (1) make any order with respect to—

(a) compensation for damage to land; or
(b) the continuation, removal or modification of works; or

(c) payment of the costs of the removal or modification of works—

that it considers appropriate.

(8) Nothing in this section prevents a person from bringing before a court a claim for damages for personal injury based on a cause of action of a kind referred to in subsection (1).

(9) In determining a cause of action arising under section 15(1), 16, 17(1) or 157(1) of this Act the Tribunal must apply to the questions of causation and remoteness of damage the same tests as a court would apply to those questions in an action based on negligence.

(10) Subject to subsection (8), a proceeding based on a cause of action of a kind referred to in subsection (1) must not be brought otherwise than before the Tribunal.

**20 Matters to be taken into account in determining whether flow is reasonable or not reasonable**

(1) In determining whether a flow of water is reasonable or not reasonable, account must be taken of all the circumstances including the following matters—

(a) whether or not the flow, or the act or works that caused the flow, was or were authorised;

(b) the extent to which any conditions or requirements imposed under this Act in relation to an authorisation were complied with;

(c) whether or not the flow conforms with any guidelines or principles published by the Minister with respect to the drainage of the area;

(d) whether or not account was taken at the relevant time of the likely impact of the flow on drainage in the area having regard to the information then reasonably available

about the cumulative effects on drainage of works and activities in the area;

(e) the uses to which the lands concerned and any other lands in the vicinity are put;

(f) the contours of the lands concerned;

(g) whether the water which flowed was—

(i) brought onto the land from which it flowed; or
(ii) collected, stored or concentrated on that land; or
(iii) extracted from the ground on that land—

and if so, for what purpose and with what degree of care this was done;

(h) whether or not the flow was affected by any works restricting the flow of water along a waterway;

(i) whether or not the flow is likely to damage any waterway, wetland or aquifer;

(j) in the case of a flow of, or interference with, water caused by the construction, removal or alteration of a levee in accordance with section 32AC of the **Victoria State Emergency Service Act 2005**, whether or not that construction, removal or alteration occurred in response to an emergency within the meaning of section 3 of the **Emergency Management Act 2013**.

(2) In taking account of the matters specified in subsection (1), greater weight must be attached to the matters specified in paragraphs (a), (b), (c) and (d) than to the other specified matters.

17 Section 16(2)(a) of the Water Act is confusing. It has two limbs, the first limb refers to a person's interference with a reasonable flow of water onto land, and the second limb refers to a person's negligent conduct which interferes with the flow of water onto land. The confusion lies in interpreting the qualifying phrase "*which is not reasonable*" which appears at the end of the subsection. Does this qualifying phrase apply to both limbs or only the second limb, and is the phrase intended to qualify "interference" or "flow of water"?

18 The confusion is at least partly resolved by Justice Balmford in *Di Clemente v Small* [1998] VSC 157, at paragraph 22 where she states**:**

> Section 16(2)(a) may be paraphrased, for ease of understanding if not of interpretation, as:
>
> - if a person **interferes with a reasonable flow of water** onto any land; or
> - if a person negligently interferes with a flow of water, which is not reasonable, onto any land…

19 I take it, then, that the qualifying phrase "*which is not reasonable*" applies only to the second limb in section 16(2)(a). It is still open as to whether the qualifying phrase applies to the *interference by negligent conduct* with the flow of water, such that such interference must be not reasonable, or whether the qualifying phrase applies to *flow of water* in the sense that the flow of water, because it has been interfered with by negligent conduct, is not reasonable. I prefer the latter interpretation because it seems to me that *interference by negligent conduct* requires no further qualification as to reasonableness.

20 The Water Act defines 'pollute', in relation to water, as follows:

> **pollute,** in relation to any water, means to alter (directly or indirectly) the physical, thermal, chemical, biological or radioactive properties of the water so as to make the water-
>
> a) less fit for any beneficial purpose for which it is, or may reasonably be expected to be, used; or
>
> b) harmful or potentially harmful to-
>
> i. the health, welfare or safety of human beings; or
>
> ii. animals, birds, wildlife, fish or other aquatic life; or
>
> iii. plants or other vegetation; or
>
> iv. other organisms

## THE APPLICANTS' CLAIMS

21 The applicants allege that they have suffered loss and damage:

a) by reason of the pollution of the dam water with the chemical simazine, and/or pollution of the dam water with sediment, caused by Midway's conduct [section 15 of the Water Act]; and/or

b) by reason of the unreasonable flow of water onto their land caused by Midway's conduct [section 16 (1) of the Water Act]; and/or

c) by reason of Midway's interference with the reasonable flow of water on to their land [section 16(2) of the Water Act]; and/or

d) because the flow of water on to their land became not reasonable as a result of Midway's interference, by its negligent conduct, with the flow of water. [Section 16(2) of the Water Act].

22 The applicants raise a number of claim items identifying the quantum of compensatory damages sought. Having examined the applicants' 'Points of Claim' and their subsequent 'Further and Better Particulars of Loss and Damage' filed in this proceeding, and having heard evidence from the applicants, it is my understanding that the claim items in respect of which the applicants seek compensatory damages are:

a) $10,970 as the cost to repair fencing damaged by logging debris, and to carry out periodical fencing inspections. The cost includes allowance for the applicants own time/labour at a nominated rate of $34 per hour. The applicants say that $34 per hour is the approximate standard labour charge rate for a farm hand. [Claim item 2].

b) $21,266 as the cost to fence off the stream and the dam, approximately 1098 metres of fencing all up, and to plant vegetation in eroded areas that were fenced off. The cost includes allowance for their own time/labour at the nominated rate of $34 per hour. [Claim item 8].

c) $9,757 as compensation for the loss of use of the portion of their land that they fenced off, reckoned by the applicants to be about 12% of the total area of the their property. As I understand it, the sum claimed represents 12% of the municipal rates paid by the applicants since around 21 April 2010, that date being six years prior to the date they commenced the proceeding. [Claim item 9].

d) $18,341 as compensation for the 'loss of water system infrastructure use'. In September 2010, when the applicants ceased using water from the dam, they were well progressed in completing a system to pipe water from the dam to troughs in higher paddocks. A pump and piping had been installed, troughs had been purchased, and the system was close to being finally commissioned and operable. They claim the cost of purchasing and installing the system, including their own time/labour at the nominated rate of $34 per hour. [Claim item 12].

e) $2,927 as the alleged extra cost to access the eastern boundary of their property following the collapse of the dam 'bridge'. Tractor access to the eastern edge of the property, that is the area of land east of the dam and the stream that runs from the dam to the northern boundary of the property, used to be possible via the dam wall. That is, the top of the dam wall on its northern edge was a tractor route to the eastern boundary of the property. At the eastern edge of the dam wall, the applicants had installed three concrete pipes/culverts through which dam overflow was directed to the stream north of the dam. The area above the overflow pipes was "the bridge" to the eastern boundary. The bridge area collapsed in a particularly heavy rain event in early September 2010. Since that time, tractor access to the eastern boundary has been via Saunders Road which runs along the southern boundary of the property. The applicants say that, in order to drive a tractor on Saunders Road, the tractor had to be registered for road use. They claim $2927 as the cost of tractor road registration since September 2010. [Claim item 6].

f) $10,838 made up of :

   i. $9,400 as the cost to repair the dam bridge, referred to above. The applicants estimate the cost to reinstate the bridge, with suitably sized larger pipes/culverts, as $9400. The estimate is made up of $4,900 as the estimated cost of supply and delivery of replacement culverts, and $4500 labour; and

   ii. $1,438 as the cost to reinstall the dam wall sluice gate. The middle of the dam wall contained a 'sluice gate' through which dam water could be released into the waterway north of the dam. The applicants say that the build-up of sediment in the dam clogged up the sluice gate, and Mr Speechley eventually removed it.

   [Claim item 5]

g) $30,000 as compensation for "devaluation of land". The applicants say that because of the simazine pollution of their property, they could not, as they had planned to, obtain certification as an organic beef producer. They say that such certification would have made their beef cattle more valuable, and they estimate their loss of earnings in this regard as $30,000. $30,000 is their estimate apparently founded on the applicants' opinion that organic certification increases the value of beef cattle by around 15% to 55%. No details are provided as to the nature of the organic certification, how such certification is obtained or why the certifying body would refuse certification. [Claim item 13].

h) $16,000 as compensation for loss of the aquatic ecosystem, that is the loss of fish and other aquatic life, in and around the dam. $16,000 is an ambit sum for the alleged loss of enjoyment of use of the dam for activities such as fishing. [Claim item 14].

i) $226,669 as compensation for loss of projected farm productivity. The applicants say that, with the loss of use of the dam water from September 2010, and the loss of use of some of the land that they fenced off, they were unable to fully implement their planned "rotational grazing" farming system. Under that system, paddocks pasture is periodically naturally replenished as stock grazing is rotated through paddocks. They say that had the rotational grazing system not been interrupted, the number of cattle would have increased from around 70, as it was in 2009/2010, to as much as several hundred. Instead, cattle numbers have reduced since 2010. As I understand it, the applicants say also that because of the simazine contamination to the property, and because so much of their time since 2010 has been taken up with pursuing their complaints against Midway, they have stopped producing fruit and vegetables on their farm, at least in the quantities they used to, and

their claim for loss of farm productivity includes an allowance for the lost value of this home produce. They estimate their lost farm productivity as $226,669. They say this calculation is set out in a computer generated spreadsheet prepared by a family member. The spreadsheet has not been produced. [Claim item 15].

j) $210,002 as 'lost opportunity cost' compensation. The applicants claim compensation for all the time they have expended in pursuing their grievances against Midway. They say they have recorded such time, and at the nominated rate of $34 per hour, the total compensation claimed is $210,002. As I understand it, such claim does not include costs they have expended in this proceeding. [Claim item 16].

23 In their Points of Claim and the Further and Better Particulars of Loss and Damage, the applicants raise two further items of potential compensation. The first is compensation for loss of their use of the dam as the primary farm water source [claim item 10]. The second is compensation for loss of topsoil caused by erosion on their property [claim item 11]. In respect of each of these items, no quantum sum is nominated because, as stated in the Further and Better Particulars of Loss and Damage, the quantum is currently unknown as the problem is ongoing.

24 The applicants also seek orders compelling Midway to carry out the following further works:

a) Fully restore the creeks and surrounds in the area between the southern boundary of the dam and the southern boundary fence on the applicants' property [claim item 3]. This area contains a significant amount of vegetation commonly referred to as "spiny rush". The applicants say that the spiny rush markedly increased with the increase of sedimentation deposits onto their land after the 2009 fire. It is not entirely clear what the applicants mean by "fully restore the creeks and surrounds", but I assume the applicants seek the restoration of the area to its vegetative state as it was prior to the fire.

b) Restoration of the eroded stream and surrounds in the area north of the dam wall. Again, it is not clear what such works would actually entail, but I assume the applicants require erosion protection/revegetation works in this area. [Claim item 3].

c) Removal of further sediment from the dam. The applicants consider the amount of sediment removed from the dam by Midway in January 2015 was insufficient. [Claim item 4].

25 As noted above, claim item 5 is the estimated cost to restore the dam bridge and the sluice gate in the middle of dam wall. In their Points of Claim, these works were identified as works the owners required Midway to carry out, rather than works for which a compensatory sum of damages was sought.

Subsequently, in the Further and Better Particulars of Loss and Damage, the applicants provided the cost estimates for these works and, for this reason, I have treated this claim item 5 as a claim for compensatory damages.

26 Midway defends all claims brought by the applicants. It denies it polluted streams and the dam. It denies that it caused, or interfered with, flows of water resulting in the flow of sediment onto the applicants land and into the dam. It says nature, and not any act or omission on the part of Midway, was the cause of the events in respect of which the applicants claim loss, damage and other relief.

## JURISDICTION

27 In addition to the Water Act claims set out above, in their Points of Claim the applicants raise 4 "*additional*" matters :

I. Various sections of the *Environment Protection Act* 1970 that deal with pollution of waters;

II. The Code of Practice for Timber Production 2007;

III. Midway's own Plantations Procedures Manual;

IV. The establishment of a plantation without applying for a permit under the Planning and Environment Act 1987 and the Mitchell Shire Council planning scheme

28 Midway submits that the above *additional* matters are not claims that are justiciable before the Tribunal.

29 While the Tribunal has jurisdiction under the *Environment Protection Act* to review certain decisions of the EPA, the Act does not confer jurisdiction on the Tribunal to hear civil suits for alleged loss and damage, such as the applicants have raised in this proceeding, arising from alleged breaches of the Act. It is unclear whether the applicants are raising additional or alternative claims under the *Environment Protection Act,* or whether they are simply referencing the sections in that Act as being relevant to their claims under the Water Act. Not being lawyers, the applicants themselves are not sure. For clarity, I will order that to the extent the applicants bring claims under the *Environment Protection Act,* such claims are struck out.

30 As to the *additional* matters II, III and IV, they are not, in themselves, causes of action justiciable in the Tribunal. They may of course be raised in evidence. That is, the applicants may raise alleged non-compliance with planning provisions, industry codes of practice and practice manuals as factors relevant to their claims brought under the Water Act. In my view this was the intention of the applicants, and I will treat their reference to these additional matters II, III and IV as such.

31 For completeness I note that the applicants' Points of Claim includes one further claim item, namely "*Chemical spray-drift adverse impacts causing illness – unknown health implications*" [claim item 1]. Mr Speechley says

that on 30 April 2010, the first day of aerial spraying by Midway, he suffered headaches and nausea which he believed was caused by chemical spray-drift. As no quantum of damages or any other form of relief is specified in respect of this claim, it is unclear why it has been made at all. In any event, having briefly discussed with the applicants the nature of the Tribunal's jurisdiction, and in particular section 19(1) of the Water Act which provides that the Tribunal does not have jurisdiction under that Act in respect of a claim for damages for personal injury, the applicants confirmed that they no longer pursue the claim in this proceeding. For clarity, I will order that this particular claim is withdrawn.

## LIMITATION OF ACTIONS ACT

32 The respondent submits that the Water Act claims brought by the applicants are caught by section 5 of the *Limitation of Actions Act* 1958, which provides that various claims cannot be brought after the expiration of six years from the date the cause of action accrued. The respondent refers in particular to the types of claim referred to in subsections 5(1)(a) and (d) of the act, namely:

- … actions founded on simple contract (including contract implied in law) or actions founded on tort including actions for damages for breach of statutory duty [section 5(1)(a)];
- actions to recover any sum recoverable by virtue of enactment, other than a penalty or forfeiture or sum by way of penalty or forfeiture [section 5(1)(d)]

33 In my view, the claims brought by the applicants for compensatory sums are caught by section 5(1)(d).

34 As to the claims where the applicants seek orders compelling Midway to carry out works, I consider such claims are caught by section 5(1)(d), and I consider the Tribunal's powers to make orders compelling the carrying out of works is contained under section 19(3) of the Water Act together with the Tribunal's general powers in respect of injunctions under section 123 of the *Victorian Civil and Administrative Tribunal Act* 1998.

35 Accordingly, to the extent the applicants' claims have been brought more than six years after the accrual of the cause of action, the applicants are statute barred from bringing the claims. The applicants commenced this proceeding on 21 April 2016. Accordingly, claims in respect of causes of action which accrued before 21 April 2010 are statute barred.

36 Of course, it is important to note that the applicants may have a cause of action under the Water Act in respect of each act of alleged pollution of water or flow of water.[1] In this case the applicants allege acts of pollution and flows of water both before and after 21 April 2010. The six-year

[1] See *Pellizer v Buckley* [2015] VCAT 1910

limitation period raises potential complexity as to when a cause of action might have accrued, however having regard to my findings discussed later in these reasons, the limitation period is a matter of little consequence.

## THE HEARING

37 The hearing commenced before me on 29 May 2017 and proceeded for 10 days in the period up to 14 June 2007. I conducted a view of Midway's property and the applicants' property on the first day of the hearing. The matter returned on 3 July 2017 for one final day to hear closing submissions. The applicants represented themselves and the respondent was represented by Mr Chiappi of Counsel.

38 Evidence for the applicants was given by:

- Each of the applicants;
- Mr Ross Lee, a Mitchell Shire Councillor from 2001 to 2016;
- Expert opinion evidence from Ms Loris Duclos who has qualifications and experience in forestry and conservation consultancy. Ms Duclos inspected Midway's property and the applicants' property on July 6, 2016, and she produced a report dated 5 August 2016.
- Expert opinion evidence from Dr William Young, an engineer with extensive qualifications and experience in chemical and mining engineering and environmental remediation projects. Dr Young is the brother of the applicant, Mrs Speechley. As the brother of Mrs Speechley, Mr Young has viewed the applicants' property many times, including during the period when the dam sediment removal works were being carried out by Midway in January 2015. He produced a report dated 28 July 2016.

39 Evidence for the respondent was given by:

- Mr Kevin Johnson, Plantations Manager for Midway since 2008;
- Mr Rowan Eyre, employee of Midway since 1999, and Resources Manager for Midway since 2010;
- Expert opinion evidence from Mr Leon Bren who has extensive qualifications and academic and consulting experience in forestry. He has published two books on forest hydrology. Mr Brown inspected Midway's property and the applicants' property on 19 August 2016, and he prepared a report (undated) soon after. That report was produced at the hearing together with a supplementary report prepared by him in March 2017.

- Expert opinion evidence from Mr Ian Tomkins who has extensive qualifications and experience as a forestry pesticides consultant. He has also published a number of papers on pesticides and herbicides. Mr Tompkins produced a report (undated) prepared by him in around late March 2017.
- Expert opinion evidence from Mr Raymond Phillips who has qualifications in agricultural science and extensive experience as a farm management consultant. He inspected Midway's property on 24 April 2017, and he produced a report dated 15 May 2017.
- Expert opinion evidence from Mr James Curtis, an environmental geologist. Mr Curtis is an employee of Douglas Partners Pty Ltd ("**Douglas Partners**"), geotechnical engineering consultants who were engaged by Midway to provide consultancy, reports and supervision in respect of the Clean Up and Pollution Abatement notices served on Midway by EPA. Mr Curtis produced an expert witness report dated 31 March 2017. He is also the author of reports prepared by Douglas Partners during the course of their engagement by Midway.

40 For the reasons set out below, I find that the applicants' claims fail.

## LANDSCAPE

41 There are no records as to the construction of the dam. Both parties accept that the dam was constructed in around the mid-1970s as works associated with construction works on the nearby Hume freeway. There are no records confirming the dimensions of the dam at the time it was constructed.

42 Prior to 1981, the Midway property was, like much of the surrounding local land, used for agricultural purposes including cattle grazing. Mr Phillips describes the characteristics of the soil in the area[2]:

- A high susceptibility to severe sheet and gully erosion particularly under bared surface conditions;
- Acidic throughout the profile and low phosphorus status. Inherent soil fertility is low;
- High recharge to groundwater on the slopes and high salinity at discharge points on the lower slopes;
- Moderate soil permeability with low available water capacity.

43 Photographs of the Midway property taken in the early 1980's[3] show deep erosion gullies amidst surrounding agricultural pastures. Having viewed the

[2] paragraph 2.2 in Mr Phillip's report, respondent's Tribunal book page 367
[3] Annexure KJ2 to the witness statement of Mr Johnson

applicants' property, in my view the stream / gulley on the applicants' property north of the dam is in a similar state today.

44 Mr Bren confirmed his observation that erosion is widespread in the area surrounding the applicants' property. He considers the erosion is consistent with high levels of sodium in the soils leading to "sodic soils" wherein

> …the clay is easily dispersed by interaction with fresh or relatively low – salinity water. This, in turn, leads to a range of erosion phenomena … These include gullying, bank and tunnel erosion, and growth of "spiny rush" (*Juncus acutus*). This behaviour is commonly associated with low to medium concentrations of sodium in the water.[4]

45 The evidence of Mr Phillips and Mr Bren is not contested. I am satisfied that the soil in the general area of the applicants' property and Midway's property is, by nature, particularly susceptible to erosion.

## CODE OF PRACTICE FOR TIMBER PRODUCTION 2007

46 In around 1981 to 1986, SCI forests Pty Ltd (part of the Smorgon Group), the then owner of the Midway property, planted the radiata pine plantation. On 26 February 1986, the Shire of Kilmore (the then local Council **)** issued a planning permit listing conditions for the development and operation of the plantation ("**the 1986 plantation permit**"), including conditions that:

- the spraying of insecticides and pesticides (poisons listed under the Poisons Act) shall be carried out by on-ground spraying units only; and
- preventative measures shall be taken to the satisfaction of the responsible authority in order to prevent surface water run-off from any part of the subject land on to any adjoining land.

47 The applicants purchased their property in 1993.

48 Midway Plantations Pty Ltd purchased the Midway property in 1995 and, since that time, Midway has managed the property and the plantation. Midway takes no issue with the fact that it, alone, is the named respondent in this proceeding.

49 In 2007, the Victorian government issued the 'Code of Practice for Timber Production 2007' ('**the Code**"), which replaced an earlier Code of Forest Practices for Timber Production. As stated in the Code, *'the Code applies to forest management planning and operations on land that is available for timber production… The Code covers all timber production operations on both public and private land in Victoria'*[5]. Chapter 4 of the Code has particular application '*to timber production activities in all plantations*

[4] Bren report at page 186 in respondent's Tribunal book
[5] page 5 of the Code

*except those managed by the Department of Sustainability and Environment*'[6].

50 From around 1993, it became no longer necessary in Victoria to obtain special planning permits for plantations, and the establishment and operating of plantations became governed by the provisions in the Code of Forest Practices for Timber Production.

51 The parties have differing views as to the applicability of the 1986 plantation permit to the replacement blue gum plantation planted after the 2009 fire. The applicants believe that the 1986 plantation permit may still have been applicable, whereas Midway says the permit applied only to the previous pine plantation. Midway says operations in respect of the blue gum plantation were and are governed by the Code, not the 1986 plantation permit. Having regard to statements in the Mitchell Shire Council minutes dated 27 April 2011, produced below, I find Midway's view is correct. The Council minutes provide[7]:

> In 1986 a planning permit was issued by Kilmore Shire Council for the establishment and operation of a softwood plantation in Saunders Road Kilmore East (the Midway plantation). This permit included a number of conditions including a requirement that no aerial spraying of the plantation was permitted…
>
> Legal advice has been obtained in relation to the applicability of the 1986 permit to the current development [the replacement blue gum plantation]. That advice, in summary, concludes that the 1986 permit no longer applies, for the following reasons–
>
> The former plantation was completely destroyed by fire in February 2009 and has subsequently been cleared in a salvage operation. The significance of this is that the authorisation for the use allowed under the 1986 permit no longer applies. Further, the current plantation has not been established under the 1986 permit, being a hardwood plantation (blue gums), whereas the 1986 permit authorised a softwood (pine) plantation.
>
> This new plantation required a new use permission in order to be established. This process was undertaken in accordance with the current planning controls (discussed below) which required a notice to Council by way of a Plantation Development Notice and a Fire Risk Management Plan approved by the CFA also submitted to Council (in response to the Wildfire Management Overlay requirements). Notification was received on 6 April 2010…
>
> Clause 35. 07-1 of the MPS [Mitchell Planning Scheme] states that a planning permit is not required for the use of land for timber production but the use must meet the requirements of Clause 52.18 of the MPS…
>
> The only trigger for a planning permit in the MPS is when land, for new or existing plantations, is covered by the Wildfire Management Overlay (WMO). Clause 44.06-1 of the MPS states that timber production requires a planning permit unless:

[6] Page 58 of the Code
[7] Respondent's Tribunal book page 387 – 388

*'the works (are) consistent with a fire risk management plan, where the fire risk management plan has been prepared to the requirements of the relevant fire authority and has been submitted to, and is to the satisfaction of, the responsible authority prior to the commencement of building all works'*

Generally where land is covered by the WMO, timber production applicants provide an approved Fire Risk Management Plan, and a planning permit is not required.[8]

The Code of Practice for Timber Production 2007, which is an incorporated document in the MPS, requires that plantation development notices and timber harvesting plans must be lodged with Local Government not less than 28 days prior to the commencement of site preparation or timber harvesting operations. The plans are then assessed by the local government pursuant to clause 52.18 of the MPS, specifically to ensure compliance with the Code and to ensure protection of Council and of environmental and other assets.[9]

52 The Code prescribes a number of mandatory actions in consideration of "environmental values in plantations" including:

- The entry of soil and other pollutants into waterways must be avoided as far as is practicable;
- Plantation operations (including establishment, tending, raiding, harvesting and re-establishment) must be planned and conducted in such a manner as to minimise mass movement or settlement of waterways;
- Machinery activity within 20 m of any waterway must be kept to the minimum necessary, to avoid soil disturbance;
- Tree extraction must not cause disturbance to the bed or bank of permanent or temporary streams. Damage to associated riparian vegetation must be minimised;
- Retained native vegetation along the waterway must be protected from damage caused by ground based plantation operations. Trees accidentally felled into retained vegetation or across a waterway may only be removed with minimal disturbance to vegetation or soil;
- Additional measures to protect water quality and aquatic habitat, including increasing the zone of minimal machinery activity, must be adopted where there is a high local risk due to:
    - the erodibility of soils;
    - rainfall erosivity;
    - steep slopes;[10]

[10] The Code page 60 – 61

53 Under the heading "Guidance", the Code makes a number of suggestions as to how environmental values may be protected, including:

- Water quality and river health may be protected by establishing or maintaining a zone of indigenous native vegetation along the riparian land. The retention of existing native vegetation and re-establishment of indigenous native vegetation along waterways is encouraged. The protection and restoration of the riparian zone is important to assist in the maintenance of healthy rivers and landscapes and the protection of social and cultural values;
- Harvest debris should generally be kept out of waterways but can remain within the buffer to protect soils. The removal of debris from a waterway may cause disturbance, and consideration should be given to the action that has the least impact on water quality.[11]

## THE FIRE AND SALVAGE HARVEST

54 On 7 February 2009 the plantation was destroyed in a 'Black Saturday' fire. It is important to understand the significant impact of the fire on the landscape, in particular the impact on water run-off.

55 The ferocity of the fire was such that all plantation trees were killed, as was ground vegetation save for a few areas deep in gullies.

56 Leaving a plantation of dead trees was not a real option, both from an aesthetic and safety perspective, and from the commercial perspective of Midway. Dead pine trees have a commercial value, albeit significantly reduced.

57 Transpiration of water into trees ceases when the trees are dead. Mr Brown explained how this would have impacted on the landscape. As the pine plantation grew to maturity, and at the time of the fire it was close to maturity, salinity in the water table would have reduced. The trees play an important role in reducing salinity. When the trees were killed, transpiration was lost. This, coupled with the loss of the tree canopy top and ground vegetation, significantly increased groundwater pressures leading to an increased salinity of outflow into the waterways. With the change in salinity comes increased erosion. The impact on the landscape, then, is not just that a greater volume of water finds its way to waterways because of the reduced transpiration capability of the landscape and the loss of the ground vegetation. The impact is exacerbated by the altered salinity levels in the water that finds the waterways.

58 Midway submitted a timber harvest plan to the Mitchell Shire Council in mid-March 2009. Harvesting (logging) of the plantation commenced soon after and was completed by around November 2009.

[11] The Code page 62

59 In her report, Ms Duclos asserts that, in conducting the harvest salvage, Midway failed to put in place vital environmental protection measures in accordance with the Code. It is a sweeping statement, not supported by the evidence.

60 As noted earlier, logging debris was intentionally left scattered across the landscape to provide some barrier /interruption to run-off water. Ms Duclos agrees that such action was appropriate.

61 I accept the evidence of Mr Johnson that machinery activity within 20 metres of waterways was, as far as practicable, minimised. Sawn logs within these areas were collected by machines with 'arms' capable of reaching 5 to 6 meters. Trees close to the waterway edges were hand logged. It is important to note that there is no benefit in leaving dead trees standing close to waterways. The dead trees have no transpiration capability and, in time, they will collapse causing hazards and erosion. The removal of trees close to waterways is not, in itself, damaging to the waterways. Rather it is the impact to the soil of heavy machinery used to log the trees that can cause damage and erosion.

62 I accept the evidence of Mr Johnson that the logging contractors engaged by Midway were instructed to create drainage channels across access tracks as they exited areas logged. Mr Johnson says such instructions were followed, and there is no evidence to contradict this. Examples of such channels were pointed out to me at the view of the property.

63 Ms Duclos says that harvesting a plantation in stages, rather than harvesting a whole plantation in one operation, is far better in terms of environmental impact. That may well be the case for a *living* plantation, but the situation changes when dealing with a *dead* plantation. The dead trees would provide no canopy cover and no transpiration of water. They present a safety hazard as they would, before long, collapse. Quite apart from the aesthetic and safety impact, as I understand it there is no environmental benefit in a dead, collapsed plantation of trees. It is better to remove the dead trees and re-vegetate the landscape. When giving evidence, Ms Duclos conceded the difference when dealing with a dead plantation.

64 Ms Duclos has not specified other environmental measures which Midway failed to take in accordance with the Code in respect of its harvesting operation.

65 On the evidence before me, I find that Midway took appropriate measures to meet the requirements of the Code in harvesting the dead pine plantation.

## NEW PLANTATION AND AERIAL SPRAYING

66 Midway decided to replant the plantation with blue gum. Midway duly provided to the Mitchell Shire Council the required Plantation Development Notice and Fire Risk Management Plan approved by the Country Fire

Authority. By letter to Midway dated 25 May 2010[12], the Council confirmed receipt of the notices and advised Midway of conditions applicable to the new plantation. The conditions ("**the MS New Plantation Conditions**") had general application to a number of plantations in the Kilmore and the Wandon regions being proposed by Midway at that time. The conditions were:

1 The Timber Plantation operations permitted must comply with the Code of Practice For Timber Production (2007).

2 Stream and drainage line crossings by access roads and transport tracks must be provided with suitably sized and designed culverts beneath the roads and tracks. Culvert inlets and outlets are to be lined with beaching to prevent scour and stream erosion.

3 Prior to the commencement of timber planting the forest owner or manager must contact Council to arrange for an inspection of infrastructure that may be damaged by the previous timber harvesting.

4 The forest owner or manager must advise the Responsible Authority when plantation operations are completed. After receiving this advice, the Responsible Authority, in consultation with the forest owner, must establish the condition of any roads which were used as a transport route.

5 During transport periods, should any deterioration in the condition of Council Roads beyond Council's maintenance intervention standard be attributed to the transport activity, the damage must be repaired by re-sheeting and grading so as to restore these roads to their pre-transport condition to the satisfaction of the Responsible Authority.

6 Any additional road access will be subject to a road opening permit and possibly a planning permit for native vegetation removal.

7 No polluted and/or sediment laden run-off is to be discharged directly or indirectly into any street, drain, watercourses or other private land *during construction*. To this end, pollution or litter traps must be provided on site. Refer to the Department of Sustainability and Environment publications, Guidelines for minimising soil erosion and sedimentation for construction sites and 'Control of soil erosion for construction sites'.

[Italics added]

67 Midway also intended to spray the proposed new plantation area with chemicals to control weed growth and protect the new plantation seedlings. The Code recognises the use of fertilisers to promote tree growth, and the use of chemicals to limit competition from weeds. It also provides that:

[12] annexure KJ 19 to the witness statement of Mr Johnson

> Chemical use must be appropriate to the circumstance and conducted with due consideration given to the maintenance of water quality, soil. Potential off-site, non-target impacts must be minimised.[13]

68 Midway notified neighbouring property owners, including the applicants, of their intention to carry out chemical spraying using helicopters towards the end of April 2010. The applicants, and other local residents, had concerns as to the aerial spraying and contacted the Department of Primary Industries ("**DPI**") and the Mitchell Shire Council. On 22 April 2010 a meeting was conducted at the Shire offices. The meeting was attended by representatives from Midway, Mitchell Shire, the DPI, the Minister of Agriculture's office and the local MP Mr Hardeman. The outcome of the meeting was that the Shire Council agreed to assist in notifying residents by letter of the upcoming aerial spraying, and the DPI agreed to monitor the spraying operations.

69 Helicopter spraying of the new plantation area was undertaken on 30 April and 1 and 2 May 2010. A DPI observer was present on two of those days. The chemicals sprayed were:

- Weedmaster Duo (glyphosate 360g/L)
- Associate (metsulfuron methyl 600g/kg)
- Pulse (polyether modified polysiloxane 1020 g/L)
- Liase (ammonium sulphate 417 g/L)
- Simazine 900DF (simazine 900 g/kg)

70 I heard much evidence about the methodology of the helicopter spraying and the precautions taken to avoid wind drift. Much of this evidence has no relevance to the main issues in this proceeding because it is not in dispute that the chemical simazine was subsequently detected in water samples taken from waterways on Midway's property and the dam.

71 The primary issue, in relation to the chemical simazine, is whether the applicants prove their claim, under section 15 of the Water Act, that Midway polluted the water in the dam and, by that act, caused the damage or economic loss claimed by the applicants. I discuss that claim, including Mr Tomkins evidence as to the toxicity of simazine, later in these reasons. I note at this point that, after completion of the aerial spraying, Midway took water samples from the four main waterways on its property on 3 May 2010 and also on 6 May 2010. The samples were stored in plastic bottles in a freezer at Midway's head office in Geelong. The samples were subsequently sent for laboratory analysis in September 2010. I discuss this later when considering the simazine pollution issue.

72 For present purpose, I am satisfied that Midway took appropriate measures to limit, as far as practicable, the aerial spraying of chemicals to the

[13] page 64 of the Code

intended plantation areas, which excludes a 20 metre buffer zone either side of main waterways and a 10 metre buffer zone either side of minor waterways. I reject the assertion by applicants, and Ms Duclos, that the aerial spraying constituted a breach of the 1986 planning permit. As discussed above, the 1986 planning permit has no application to the blue gum plantation.

73 I also note my observation on viewing Midway's property that, save for a few particular problem areas of erosion where Midway has carried out erosion protection works, the banks of waterways on Midway's property, including the 2 major streams which flow on to the applicants' property, showed significant natural vegetation growth including grasses, wattle trees and various other vegetation. Such vegetation growth was, on my observation, more significant and abundant than the vegetation growth along the banks of the stream on the applicants' property north of the dam.

74 The new plantation, the blue gum seedlings, were hand planted across approximately 414 hectares during the winter of 2010.

75 The applicants say that the condition number 7 of the MS New Plantation Conditions, referred to above, was not met by Midway.

76 The respondent says that the Mitchell Shire had no power to make the MS New Plantation Conditions because, as discussed above, since around 1993 plantations no longer required special planning permits, but were operable 'as of right' subject to compliance with the Code and the provision of an approved fire risk management plan where the land is covered by a Wildlife Management Overlay.

77 Condition 7 refers to pollution and/or sediment run-off *during construction.* What is meant by "*during construction*" is not clear. As the conditions were prescribed for proposed new plantations, I do not think they were intended to apply to the harvesting operation in respect of the old pine plantation. The *construction* of the new blue gum plantation consisted of little more than the hand planting of the blue gum seedlings. It might also include the aerial herbicide spraying. In my view condition 7 was more likely intended to cover major construction works involving heavy machinery.

78 I consider Midway's submission that the Mitchell Shire had no power to make the MS New Plantation Conditions has merit, but whether or not the Mitchell Shire had the power is of little significance to my decision in this case. As discussed later, I find that sediment run-off onto the applicants land was the inevitable result of the forces of nature, and not the result of Midway's actions or inaction. As also discussed later in these reasons, I find that the applicants have failed to prove loss and damage arising from the low levels of simazine detected in the dam water.

## MAINTENANCE WORKS

79 I accept the evidence of Mr Eyre, uncontested, that in 2009 and 2010 Midway attended to a number of maintenance works throughout its property. These included repair and maintenance of roads damaged by logging trucks, road and drainage grading following the salvage harvest, and the cleaning and armouring (with rocks) of various waterway inlets/outlets.

## RAIN

80 Victoria experienced an extended period of drought, around 10 years, prior to 2010. In winter and spring of 2010 and summer of 2011, it rained abundantly. In his report, Mr Phillips produces rainfall data taken from the Bureau of Meteorology site at the Kilmore racecourse, located approximately 6 km from the applicant's property. In the period 2002 to 2015, the average annual rainfall for the region was 653.9 mm. In 2010 there was 1099 mm of rain, of which 770.5 mm fell from June to December. In 2011, 936.5 mm of rain was recorded, of which a startling 276.5 mm fell in January and February.[14]

81 Rainfall records collected by the applicants on their own property show similar results.[15]

82 During the hearing the applicants produced video footage they had taken of heavy rainfall events. Each piece of footage shows brown coloured water thundering along the stream entering their property from the Midland property, and over the dam overflow at the north-east corner of the dam. The applicants are not sure of the exact dates of the video footage, however they believe the videos were taken in around September 2010, the summer of 2012 and a further occasion in 2016.

83 I note that the video footage from the different years is similar. The flooding and volume of water flow in 2010, when the blue gum plantation was just planted, is similar to the flooding and volume of water flow in 2016, when the blue gum plantation was well established. It indicates to me that in very heavy rain events, a well vegetated landscape will not hold back thundering flows of water down streams.

84 The applicants say that the dam bridge was battered by heavy rain events after the fire, and that it eventually collapsed during a heavy rain event in September 2010.

85 Having seen the video footage, one can readily understand that wire fencing at the entrance to the applicants' property and the dam bridge might be

[14] In his report, Mr Phillips produces the Bureau of Meteorology figures for the years 2009, 2010, 2011 and 2012, and the average rainfall for the period since 2002, when records commenced at the Kilmore Racecourse site.
[15] Applicants' Tribunal book page 910

damaged to the point of collapse. The issue is whether such flows were caused by Midway's conduct.

## SIMAZINE AND 'AUSTRALIAN DRINKING WATER GUIDELINES' AND 'STATE ENVIRONMENT PROTECTION POLICY (WATERS OF VICTORIA)'

86 The *Australian Drinking Water Guidelines* ("**ADWG**") is a substantial publication produced by the Australian National Health and Medical Research Council to provide the Australian community and the water supply industry with guidance on what constitutes good quality drinking water. The ADWG is revised from time to time to keep pace with the latest scientific evidence on good quality drinking water.

87 The ADWG provides 'health guideline values' for various chemicals including simazine. The health guideline value for simazine is 0.02 mg/L (milligrams per litre).[16] This is equivalent to 20 parts per billion or 20 "ug/L". Included within the ADWG are numerous "fact sheets" on various chemicals, including simazine. The simazine fact sheet[17] includes, amongst others, the following statements:

- If present in drinking water as a result of a spillage or through misuse, simazine would not be a health concern unless the concentration exceeded 0.02mg/L…
- Simazine is a pre- and post-emergent herbicide for the control of annual grasses and broad-leaf weeds in a range of agricultural crops… It is also used as an algicide in swimming pools…
- There are registered products that contain simazine in Australia. The products are intended for professional and home garden use and are available as concentrated solutions to be applied in diluted form using ground and aerial sprays weekly onto soil, or added to swimming pools…
- Agricultural use of simazine may potentially lead to contamination of source waters through processes such as run-off, spray drift or entry into groundwater…
- ***Poisons Schedule***: Simazine is considered not to require control by scheduling due to its low toxicity…

88 Mr Tomkins says that, for agricultural purposes across the State of Victoria, the accepted safe level for simazine in water is the ADWG health guideline value, namely 20ug/L. He says that simazine has very low toxicity, and if ingested it is rapidly metabolised and excreted in urine. He says the ADWG health guideline value for simazine is very conservative (safe) having regard to the chemical's low toxicity.

[16] health guideline values from the ADWG, 2011 version, produced in annexure KJ 40 of the witness statement of Mr Johnson
[17] in Part V of the ADWG, the 2011 version produced in the annexure KJ 40 of the witness statement of Mr Johnson

89 The *State Environment Protection Policy (Waters of Victoria)* ("**SEPPWOV**") is a publication produced by the EPA which sets a framework for the protection of uses and values of Victoria's fresh and marine water environments, called *beneficial uses*. Beneficial uses include:

- aquatic plants and animals;
- water suitable for aquaculture;
- water based recreation;
- water suitable for human consumption;
- cultural and spiritual values;
- water suitable for industrial and shipping;
- water suitable for agriculture.

90 The SEPPWOV sets out a series of environmental quality objectives and indicators to measure whether *beneficial uses* are being protected. As noted in the SEPPWOV:

> It is recognised that some objectives will take longer to meet than others. In these cases, the SEPP provides a framework to develop targets that will help to drive environmental improvement so that we can ultimately meet the objective.[18]

91 The SEPPWOV details the environmental quality objectives for toxicants in rivers and streams.

> The value for non-metal toxicants in the cleared hills and coastal plains segment is set at 99% ecosystem protection level as specified in the Guidelines for Fresh and Marine Water Quality (2000)… The 99% ecosystem protection level for simazine, specified in the guidelines, is 0.2 micrograms per litre.[19]

92 This SEPPWOV guideline value, in relation to simazine, is 100 times more stringent than the ADWG health guideline value for safe drinking water. Mr Tomkins says that the SEPPWOV guideline level is "aspirational" and is not practically achievable in situations involving legal use of simazine.

## MITCHELL SHIRE

93 On 27 August 2010, the Mitchell Shire collected four samples of water from waterways just inside the applicants' property, adjacent to the Midway property, for analysis. The samples were analysed by the National Measurement Institute which produced an analysis report dated 10 September 2010.[20] The report identifies the presence of simazine in the four water samples as follows:

- Sample 1, creek water, 19ug/L;

[18] Page iii of the SEPPWOV 2003 accessed on Victorian Government Publications website.
[19] statement taken from EPA incident summary sheet 5 July 2011, annexure KJ 49 to the witness statement of Mr Johnson
[20] Applicants' Tribunal book page 537

- Sample 2, creek water, 20ug/L;
- Sample 3, creek water, 20ug/L;
- sample 4, Saunders Road, 9.8ug/L

94 As discussed later in these reasons, the samples of water collected by Midway in May 2010, shortly after the aerial spraying, and further water samples collected by the EPA in in October 2010, December 2012 and July 2013 also reveal the presence of simazine, but at lower levels than the samples collected by the Mitchell Shire on 27 August 2010.

95 On 21 September 2010, the applicants were informed of the test results for the water samples collected by the Mitchell Shire on 27 August 2010. As noted earlier in these reasons, after receiving the results the applicants immediately ceased using the dam water for farming or any other purpose, and they have not used it since. A short while later they also commenced fencing off the dam and the stream to the south and north of the dam.

96 In 2010, the Mitchell Shire Council engaged a forestry consultant, Mr Poynter, to prepare an audit report on the Midway plantation re-establishment following the fire and salvage harvesting. Mr Poynter provided his report dated 13 December 2010 to the Mitchell Shire. In the introduction to the report, Mr Poynter states, amongst other things:

> This audit makes observations from an independent forestry perspective of the overall plantation establishment operation. Although it is not normal procedure, the sensitivity of this operation in the background of neighbour disquiet, dictated that the independence of the audit process would be best maintained by not contacting Midway during the conduct of the audit. However, the Mitchell Shire has provided the auditor with access to documentation that has provided background and records of the plantation re-establishment operations…
>
> In this case, the very large size of the plantation area has dictated that the audit approach has been more of an overview where the auditor traversed the whole plantation by vehicle stopping at the accessible areas to view examples that comprised a sub-section of the total operational result.
>
> It should also be recognised that this plantation site is atypical because it has been severely fire affected and so is devoid of the organic matter that normally provides a protective covering to soil and so is subject to a higher than normal erosion hazard given the increased run-off which is initially typical of burnt sites. This threat has been substantially exacerbated by the well above average rainfall during 2010.[21]

97 Mr Poynter's report goes on to make a number of assessments. Having read the report, I consider the main assessments, relevant to the issues in this proceeding, to be:

[21] Page 1 of Mr Poynter's report. Mr Poynter's report at annexure KJ 36 to the witness statement of Mr Johnson

- that the waterways were well protected by the plantation re-establishment operation with no signs of machine operation in close proximity to waterways;
- that major waterways were protected from herbicide application by wide buffers which were not sprayed, and those areas are regenerating back to grass, wattle, eucalypt and other vegetation;
- that the waterways had been subject to historical and recent erosion;
- that condition number 2 and condition number 7 of the Mitchell Shire New Plantation Conditions had not yet been met by Midway, but that this was not surprising having regard to the wetness of the site, since the conditions were issued, by reason of well above average rainfall;
- sediment from several minor tracks had made its way into major waterways which then flowed on to the applicants property;
- that remedial works to some tracks and drains should be carried out once the site dries out;
- *"that the level of simazine recorded* [in the water samples taken by the Mitchell Shire Council on 27 August 2010] *of between 10 to 20 parts per billion is below or equivalent to the 20 parts per billion concentration nominated in the Australian Drinking Water Guidelines 1996 as a 'health-related guideline' which 'based on present knowledge, does not result in any significant risk to the health of the consumer over a lifetime of consumption"*[22]

98 Mr Poynter was not called to give evidence and, as such, it was not possible to question him on the commentary in his report.

99 As discussed further later in these reasons, in September/October 2010 the applicants received assurance from a number of authorities to the effect that the levels of simazine detected in the water samples was very low and not harmful to their cattle.

100 By letter dated 25 October 2012, the Mitchell Shire Council made it clear to the applicants that the Council considered it had properly addressed its responsibility in respect of the applicants' complaints concerning Midway's aerial herbicide spraying, and that the Council would be taking no further action on those complaints.[23]

[22] final paragraph on page 8 of Mr Poynter's report
[23] Annexure 38 to the witness statement of Mr Johnson

## EPA

101 The applicants raised their complaints as to simazine and sediment 'pollution' of their property with the EPA.

102 The EPA collected samples of water for analysis on 14 October 2010. The test results, provided by the National Measurement Institute on 4 November 2010, indicated the presence of simazine at 13.6ug/L in a sample of water taken from the dam.[24]

103 In March 2011, Midway provided to the EPA, at the EPA's request, documentation as to the aerial spraying carried out between April 30 and May 2, 2010.

104 At a mediation in July 2012, arranged at the suggestion of the EPA, the applicants and Midway failed to resolve the applicants' complaints.

105 Further water samples taken by the EPA in December 2012, analysed in January 2013, produced no result for simazine.

106 In February 2013, the EPA notified Midway that it intended to serve on Midway draft notices – a draft Pollution Abatement Notice and a draft Clean Up Notice - in respect of the sediment flowing from Midway's property onto the applicants property and into the dam. As I understand it, the intention was to allow Midway an opportunity to comment on the draft notices. The draft notices were served in March 2013.

107 While not accepting that it had any liability in relation to the sediment issue, Midway agreed to undertake works on its property aimed at stemming the flow of sediment down the streams which flowed onto the applicants' property. The works, carried out in April 2013, included installation of beaching rock and rock runouts at various cross drains, and the installation of water bars on various tracks.

108 In mid-May 2013, the EPA served on Midway a Clean Up Notice ("**CUN**") dated 16 May 2013[25]. The CUN included a number of '*observations*' as to erosion and sediment deposition in the streams which flow into the dam, including the observation that:

> …this sediment had changed the waters in the dam to make them detrimental to the beneficial use, the waters could no longer be used for drinking by the livestock.[26]

109 As discussed later in these reasons, it is unclear why the EPA concluded that the dam water was unsuitable for livestock.

110 The CUN required Midway to *remove the sediment that has deposited on the farm and in the farm dam* by 23 September 2013[27]. The CUN, under the

[24] test results exhibited at annexure KJ 45 to the witness statement of Mr Johnson
[25] Annexure RE 2 to the witness statement of Mr Eyre
[26] page 3 of the CUN
[27] page 5 of the CUN

heading "AN EXAMPLE OF HOW YOU CAN COMPLY"[28] states, amongst other things:

- The removal of the sediment in the farm dam… should be to the level most practicable; photographic evidence indicates the most appropriate level in the farm dam is approximately 30 cm below the surface…
- Using a NATA accredited laboratory test sediment prior to it being removed…
- …ensure that all works are undertaken during appropriate weather conditions and not when high levels of rainfalls are predicted for the catchment area…

111 Although maintaining it was not liable for the sediment in the dam, Midway engaged geotechnical engineering consultants, Douglas Partners to assist them to implement the CUN.

112 Over the ensuing 20 months, Douglas Partners:

- carried out inspections,
- took samples of water and sediment,
- prescribed and supervised dam sediment removal works
- prescribed and supervised sediment control works on a Midway's property, and
- produced a number of reports setting out their observations, the test results of water and sediment samples, scopes of recommended works and observations on completed works.

113 Due to seasonal rainfalls and the time required for Douglas Partners to inspect and prescribe a scope of works, Midway sought an extension of time to comply with the CUN. The EPA agreed to the time extension, which was effected by a revocation of the CUN on 24 October 2013 and the simultaneous issuing of a new CUN dated 24 October 2013. The replacement CUN was similar to the initial CUN, although it included further "*observations*" as to herbicide analysis and turbidity analysis derived from test results on water samples taken by the EPA itself in July 2013. I discus those observations later in these reasons. The replacement CUN extended the date for the removal of the sediment to 30 April 2014.

114 Also on 24 October 2013, the EPA served on Midway a Pollution Abatement Notice ("**PAN**") which included similar observations to those set out in the CUN, and required Midway to:

> …install sediment controls at the premises [Midway's property] to prevent any further discharges of sediment laden water into waterways occurring beyond the boundaries of the [Midway] property[29]

[28] Page 6 of the CUN
[29] Page 6 of the PAN, at page 605 of the applicants' Tribunal book

115 Midway challenged the PAN in a proceeding issued in this Tribunal. Ultimately, that proceeding was settled by consent orders filed 15 September 2014 which provided that the PAN was revoked. The consent orders were the result of agreement between the EPA and Midway in respect of various sediment control works, as prescribed by Douglas Partners, carried out and to be carried out by Midway on its property. Such works included:

- replacement of some culvert pipes
- installation of crushed rock at some drain sites, the intended purpose being to counter erosion and decrease the velocity of water flow into and out of the drains;
- installation of a sediment control fence at one particular problem spot;
- installation of 6 rock weirs in streams, the intended purpose being to stem water flow velocity and capture sediment.

116 In July 2014 Midway again requested an extension of time to comply with the CUN. The EPA agreed and on 24 July 2014 a new CUN, similar to the previous CUN, was issued extending the date for the dam sediment removal works to 31 January 2015.

117 In December 2014, Midway commenced the major task of emptying the dam and removing a large quantity of sediment. The works included:

- water diversion works to divert flow of water around the dam;
- installation of authorised traffic control safety measures to monitor the movement of machinery and trucks into and out of the dam site;
- removal of in excess of 0.5 metres of sediment across the dam footprint and removal in total of around 15,000 to 16,000 cubic metres of sediment from the dam and the inlet areas to the dam [30];
- dumping of the removed sediment on the Midway property. Wet sediment was dumped at a specially created containment area on the eastern side of Midway's property adjacent to the Hume Freeway. Dry sediment was spread across the firebreak area adjacent to the freeway.

118 I heard much evidence as to the sediment sampling methodology adopted by Douglas Partners and whether the depth of sediment removed was sufficient. Most of this evidence is not relevant to my decision in this case because, as discussed later in these reasons, I find that Midway did not

[30] Douglas Partners report dated 27 February 2015 at annexure RE 26 to the witness statement of Mr Eyre

cause the sediment run-off into the dam. For completeness, I briefly set out matters leading to the eventual revocation of the CUN by the EPA.

119 It was the EPA's expectation that Midway would remove the sediment built up in the dam after the Black Saturday fire on 7 February 2009.[31]

120 Before the dam was emptied, Douglas Partners obtained samples of sediment taken from around 26 locations across the dam. The samples were analysed and Douglas Partners estimated the average depth of sediment deposited after the 2009 fire to be 0.35 metres, and they recommended that 0.5 metres of sediment be removed across the dam bed.[32]

121 The applicants considered the sampling methodology adopted by Douglas Partners to be inadequate. Mrs Speechley's brother, Mr Young, purported to give expert evidence in this regard, but I found his evidence was mostly made up of sweeping statements lacking the thoroughness and substance of a truly independent expert witness. For example, in his report Mr Young states "Their [Midway's] precipitous withdrawal left the site in an exposed and vulnerable condition; it remains contaminated and unsuitable for purpose, refer appendix 3"[33]. Appendix 3 to his report consists of a number of photos of the dam and surrounds shortly after Midway completed the sediment removal works. The photos do not explain to me why the dam remained contaminated and unsuitable for purpose.

122 I found Mr Young to be well-qualified and earnest, but I consider his independence as an expert witness was seriously compromised by the fact that he is the brother of one of the applicants, and I found I could not rely on his evidence.

123 The EPA considered the scope of work proposed by Douglas Partners, which prescribed removal of 0.5 metres of sediment across the dam, to be comprehensive and satisfactory to satisfy the CUN.[34]

124 After Midway had completed the sediment removal works, the EPA approved the works and the CUN was revoked on 27 May 2015.

125 The applicants remained dissatisfied with the works carried out by Midway. On 21 April 2016, the applicants commenced this proceeding.

## POLLUTION CLAIMS UNDER SECTION 15 OF THE WATER ACT

### SIMAZINE

126 Much of the loss and damage claimed by the applicants depends on a finding that the loss and damage is the consequence of the dam being

[31] The EPA's expectation confirmed in an email from the EPA to Midway dated 16 January 2015, the email being annexure RE 18 to the witness statement of Mr Eyre
[32] Pages 4-5 of Douglas Partners report dated 23 December 2014, the report at annexure RE 17 to the witness statement of Mr Eyre
[33] Second paragraph, page 4 of Mr Young's report, at page 229 of the applicants' Tribunal book
[34] see EPA email to Midway dated 16 January 2015, annexure RE 18 to the witness statement of Mr Eyre

polluted with simazine, thus making the dam water unsuitable for farm use. In my view, the evidence does not support such a finding.

127 Since 2010 there have been a number of sample tests of water in the dam or in the creeks that flow into the dam:

a) samples taken by Midway on 3 and 6 May 2010, analysed in September 2010, exhibited simazine levels up to a maximum of 0.8 ug/L[35];

b) samples taken by the Mitchell Shire on 27 August exhibited simazine levels between 9.8 and 20 ug/L[36];

c) samples taken by the DPI in September 2010 exhibited simazine levels up to 2.7ug/L[37];

d) samples taken by the EPA in October 2010 exhibited simazine levels in the dam water of 13.6 ug/L. (A sample of a dam on the Midway property exhibited simazine level 16.2ug/L)[38];

e) samples taken by the EPA in December 2012 produced no result for simazine[39];

f) samples taken by the EPA in July 2013 exhibited simazine levels up to 0.04 ug/L[40];

g) samples taken by Douglas Partners on 8 and 30 October 2014 exhibited no simazine detected above the laboratory testing limits of 0.7 and 0.2 respectively.[41]

128 For completeness, I note also that samples of sediment taken from the dam by Douglas Partners in November 2013 indicated no simazine above the minimum laboratory reporting limit of 0.01 mg/kg.[42]

129 None of the results exceed the ADWG health guideline value for simazine of 20 ug/L. The applicants, however, point to the fact that a number of the results exceed the SEPPWOV guideline value.

130 It is understandable that the applicants would point to the SEPPWOV guideline value because it is referred to by the EPA in the CUN and PAN notices served on Midway by the EPA.

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[35] results at annexure KJ 44 to the witness statement of Mr Johnson
[36] results at annexure KJ 41 of the witness statement of Mr Johnson
[37] Mr Johnson witness statement paragraph 101
[38] results at annexure 45 of the witness statement of Mr Johnson
[39] Statement in attachment B to EPA Clean Up Notice dated 16 May 2013. Annexure RE2 of the witness statement of Mr Eyre
[40] Results in attachment B to EPA Clean Up Notice dated 24 October 2013. Page 620 – 621 applicants' Tribunal book
[41] results reported at page 9 of the Douglas Partners report at annexure RE 17 to the witness statement of Mr Eyre
[42] paragraph 8.2 in DP Dam Sediment Assessment Report 5 February 2014, annexure RE7 of the witness statement of Mr Eyre

131 In my view, however, the ADWG value is the more relevant measure. I accept the evidence of Mr Tomkins that the ADWG value is the value generally applied in agriculture across Victoria. His evidence in this regard is not contested. I found Mr Tomkins to be a helpful expert witness who answered questions directly with a confidence founded on many years of relevant experience.

132 As discussed below, the applicants raised their concern as to possible simazine contamination of their cattle with the DPI. In responding to the complaints, the DPI referenced the ADWG value. The DPI did not reference the SEPPWOV guideline value.

133 I accept Mr Tomkins' evidence that the ADWG value is a conservative measure having regard to the low toxicity of simazine, and that water with a simazine level of 20ug/L would be safe for humans and animals to drink. There is no expert opinion evidence before me to the contrary.

134 As noted earlier, in September 2010 when the applicants were informed of the simazine test results in the water samples collected by the Mitchell Shire in August 2010, they immediately ceased using the dam water and fenced off the dam. In my view, their actions in this regard were reactionary and unnecessary, particularly having regard to the advice they received from the DPI.

135 In response to correspondence sent by the applicants to the DPI, the DPI responded with a letter dated 27 September 2010 to Mr Speechley. The author of the DPI letter was Dr George Downing, Acting Director Chemical Standards Biosecurity Victoria. Amongst other things, that letter states:

> You have expressed concern that your cattle may be contaminated with simazine following positive tests for simazine in water that was sampled from a creek that runs through your property. You have advised that you intend to sell the cattle at the end of September 2010…
>
> …it is not clear to DPI whether the cattle you propose to sell are going for slaughter or are to be grown out on another property or how many cattle you say are involved. Based on the information we have reviewed to date, we consider that the levels of simazine detected in the water are very low and unlikely to result in residues in your cattle.
>
> However, in order to assist you…. DPI would be prepared to undertake the sampling and testing (which can only be done on those you advise are intended for slaughter) to determine whether the cattle contain residues of the chemical simazine. We will provide the results to you and, in the event residues are detected, the results will be forwarded to the appropriate agency.
>
> Please let us know whether you would like us to assist you with the sampling and testing before you proceed to sell the cattle. [43]

[43] Applicants' Tribunal book page 1332

136 The applicants did not take up the offer from DPI. In his response letter to the DPI dated 30 September 2010[44], Mr Speechley states, amongst other things:

> Your offer to blood test at an abattoir is not satisfactory in that the animals will be arriving there as a special consignment and the meat would have to be segregated until tests prove whether it is suitable for human consumption. This method of testing would no doubt incur a cost as would selling them on, to be grown out with either known or unknown residue status. I am sure that either way I would make a significant loss, especially it would damage my reputation as a seller, which I cannot afford.
>
> I request that the DPI arranged to have blood and biopsy tests undertaken on my property…

137 As I understand it, the DPI was not prepared to test the cattle at the applicants' property as Mr Speechley requested. In any event, no testing of the cattle for simazine residue was ever carried out. The applicants say the cost of arranging blood tests for the cattle was prohibitive.

138 On 6 October 2010, Mr Speechley received an email from Mr Raj Bhula, Program Manager, Pesticides at the Australian Pesticides and Veterinary Medicines Authority (APVMA)[45]. Amongst other things, the email states:

> I am responding to your enquiry which Michelle received last week. I understand that you have cattle on your property which have been drinking water containing levels of simazine at 10 to 20 ppb [parts per billion].
>
> On the basis of the information that you provided to Michelle, including bodyweight details, any cattle that you send to slaughter should be acceptable in terms of meeting the appropriate legal standards for simazine in meat and meat products.

139 On 7 October 2010, Mr Speechley sent a response email to Mr Bhula expressing, amongst other things, his concern that the simazine test results were taken from water samples collected four months after the simazine aerial spraying. On 11 October Mr Bhula sent a reply email to Mr Speechley in which Mr Bhula states, amongst other things:

> Noting that the water tests are for samples taken some months after the spraying had occurred, my previous advice for simazine still stands. I also give the same advice for glyphosate and metsulfuron-methyl. Your animals if sent to slaughter, would meet the legal standards for all three chemicals in meat and meat products…
>
> You indicate that you use organic farming practices on your property. If you are concerned that your livestock should not contain any residues at all, in other words that they should be residue-free and below the legal standards, then the best solution would be to have one or two animals tested before they are all sent for slaughter. [46]

[44] Applicants' Tribunal book page 1340
[45] Applicants' Tribunal book page 1343
[46] Applicants' Tribunal book page 1342

140 As noted above, the applicants did not have any of their cattle tested for chemical residue.

141 In response to further correspondence received from Mr Speechley, the above-mentioned Dr George Downing from the DPI sent a letter to Mr Speechley dated 11 October 2010 wherein he states, amongst other things:

> I am advised by the Australian Pesticides and Veterinary Medicines Authority (APVMA) that the levels of simazine detected in the water are well below the acceptable level for cattle drinking water and will not result in unsafe residues in your cattle. Similarly the other chemicals used on the plantation will not result in unsafe residues. You may not be aware that simazine is registered for use in cleaning algae from cattle drinking troughs, at levels 100 times greater than those detected in the Sunday Creek [Sunday creek being the creek from which the Mitchell Shire water samples were taken in August 2010]. [47]

142 The applicants say that the simazine contamination prevented them from obtaining certification as an organic beef producer, apparently something they intended to do. There is no evidence as to the nature or provider of any such certification, no evidence that the applicants have been refused some form of organic certification, and no evidence that their cattle farming would not have met criteria for the intended organic certification.

143 The definition of "pollute" contained in the Water Act, set out earlier in these reasons, is broad. I am satisfied that the detection of simazine in the dam water can be said to have altered the chemical properties of the water, however minor the alteration. I also accept that Midway created the source of the simazine in that Midway carried out the aerial spraying of simazine on 30 April and 1 and 2 May 2010.

144 Accordingly, it might be said that Midway "polluted" the dam water with simazine within the definition of the Water Act.

145 However, I find that the applicants have failed to prove, on the balance of probabilities, the requisite causal connection required under section 15 of the Water Act between the act of simazine pollution and the loss or damage claimed. The applicants have failed to prove on the balance of probabilities that the simazine "pollution" of the dam or creek water has caused the loss and damage they claim.

146 The evidence, such as there is, is that the simazine levels found in the dam water was not harmful. That is the evidence of Mr Tomkins, which I accept. There is no expert evidence to the contrary.

147 The EPA appears to have reached a similar conclusion. It served notices on Midway requiring remedial action in respect of sediment (the CUN and the PAN) but it served no notices in respect of simazine.

[47] Applicants' Tribunal book page 1359

148 The DPI reached a similar view, at least in respect of the applicants' cattle. It is noteworthy, in my view, that the applicants declined the DPI's offer to test their cattle for simazine residue, yet they have subsequently pursued claims for damages in respect of alleged simazine contamination without supporting expert opinion.

149 On all the evidence, I find that the applicants' claim, in so far as it alleges loss and damage arising from simazine pollution of the dam or creek water, fails.

## SEDIMENT/TURBID WATER

150 There is no dispute that turbid water carrying sediment flowed from Midway's property onto the applicants' property and into the dam.

151 In terms of the definition of "pollution" under the Water Act, it can be said that the sediment that entered the dam "altered" the physical or biological properties of the dam water, however minor that alteration might have been.

152 The CUN issued by the EPA on 24 October 2013 includes the following statement:

> Sediment from the premises has discharged onto a neighbouring farm at [the applicants' property]… and into a dam on the farm, causing pollution i.e., detriment to a beneficial use of waters by making the dam water unsuitable for drinking by stock[48]

153 It is unclear how the EPA drew the conclusion that the sediment in the dam made the water unsuitable for drinking by stock. No one from the EPA was called to give evidence.

154 The EPA did test the turbidity of water samples taken in July 2013[49]. Four samples were taken. The unit of measure for turbidity is 'NTU', which is a measure of light penetration/scatter in water. The higher the NTU, the more turbid the water.

155 Of the four samples of water, two had very high values of 3200 NTU, one had a high value of 600 NTU, and one had a low value of 33 NTU. It is not entirely clear where the different samples were taken, but I understand from the description provided in test results that the two very high result samples were taken where small weirs had in the past been constructed on waterways. The high result of 600 NTU was taken from the dam near its overflow outlet and the low result of 33 NTU was taken from a creek on Midway's property.

156 It is not surprising to me that the high NTU results were from water samples taken from weir sites, because the collection of sediment is one of the functions of a weir.

[48] page 5 of CUN dated 24 October 2013, applicants Tribunal book page 611
[49] the turbidity test results are found in the attachment C to the CUN dated 24 October 2013, applicants Tribunal book pages 620 – 622

157 In any event, the water sample taken from the dam produced a high turbidity test result.

158 The following statement, apparently written by the EPA representative responsible for collecting the water samples and arranging the turbidity tests, is found in an EPA memo accompanying the test results. The statement is also reproduced in both the CUN and the PAN:

> The turbidity of the sample collected from the uppermost site (33 NTU at southern creek catchment) is typical of a creek in a disturbed agricultural catchment. The turbidity of the remaining samples is extremely high and suggests erosion or sediment disturbance upstream. In my opinion, the turbidity levels recorded would be detrimental to aquatic life (macro-invertebrates, fish), even if they only occurred for a brief period. The turbidity levels would have caused physical abrasion and damage to aquatic animals. The sediment in the water column would be expected to affect the ability of aquatic animals to breathe…[50]

159 Mr Young makes reference in his report to turbid water, but he provides no expert opinion as to turbidity test results or the suitability of turbid water as drinking water for cattle.

160 Mr Bren says that turbidity readings are unreliable, in that results from the same sample of water will produce different NTU readings from different testing machines. He says also that NTU results are not of much use once the NTU reading exceeds 300. He says NTU is a relatively accurate unit of measurement at low levels of turbidity, but once you pass 300, NTU readings lose accuracy and are of little use.

161 Mr Phillips says that he is unaware of any water turbidity testing relevant to farm animal safety. He says that sediment/turbidity in dams is commonplace and he considers turbidity to be relatively harmless matter made up of very fine particles which does little else than colour water. He says turbid water can be cleared up using chemicals, however most farmers don't bother with chemicals because they are not concerned that their cattle are drinking water coloured by turbidity. Mr Phillips says he viewed the creek inlets just south of the dam when he inspected the Midway property in April 2017. He says he observed the water to have turbidity, but that he would have no problem with cattle drinking such water.

162 I found Mr Phillips to be a helpful expert witness who answered questions in a confident manner, founded on many years of relevant experience in farming operations consultancy. If there exists a testing methodology used in farming to test the turbidity of dam water in terms of its suitability as drinking water for farm animals, I am confident that Mr Phillips would be familiar with it.

[50] Found under the heading "EPA OBSERVATIONS" in both the PAN and the CUN, and in the attachment C to the CUN notice. See applicants Tribunal book page 602, 609 and 620 in the applicants' Tribunal book.

163 It is unfortunate that no one from the EPA was called to give evidence. On the evidence before me, I can see no sound basis for the EPA's conclusion, stated in the CUN notice, that the sediment in the dam water made the water unsuitable for drinking by stock.

164 In any event, even if I was satisfied on the evidence that sediment washed into the dam from Midway's property made the dam water unsuitable for use, causing loss and damage to the applicants, to find Midway liable under section 15 of the Water Act for the loss and damage, I must also be satisfied, on the balance of probabilities, that Midway, either directly or indirectly, *caused* the pollution. On the evidence before me, I find that that is not the case.

165 As noted earlier in these reasons, the landscape/soil where the applicant's property and the Midway property are located is, by nature, susceptible to erosion. The deep gullies formed by waterways, common to the area, are testament to that.

166 Creeks and waterways carry sediment. As Mr Bren said when giving evidence, every stream is busy eroding its landscape. Dams which collect water from streams will collect sediment that comes with the water. In a landscape susceptible to erosion, the amount of sediment carried down streams will be greater than in a landscape less susceptible to erosion. Erosion, turbidity of water and sediment go together.

167 As discussed earlier in these reasons, the fire on 7 February 2009 significantly impacted the Midway landscape. Loss of vegetation and the killing of the plantation trees results in greater volumes of water, with greater salinity level, running into waterways causing greater erosion. The problem is exacerbated with heavy rainfall, such as the rain that fell in 2010 and 2011.

168 It is no surprise that the volume of sediment in the applicants' dam increased following the fire.

169 Mr Brown and Ms Duclos agree that the best way to combat the erosive impact of such a fire is to revegetate, or encourage the revegetation of, the landscape.

170 Midway decided to salvage harvest the whole of the dead plantation and replace it with a new plantation of blue gum. Midway is in the business of tree plantations, and its decision in this regard made commercial sense. Mr Bren says that such decision was also entirely appropriate from the point of view of minimising the erosive impact of the fire. As Mr Bren says in his report:

> .. the best single ameliorative strategy is to get the new plantation growing as fast as possible to reduce slope recharge, thereby reducing the outflow of saline water from substantial depths in the slopes into the stream.[51]

171 When it comes to turbidity control, Mr Bren doubts the value of 'settling' or 'surge' ponds and other rock structures installed at intervals along streams. He says the erosive impact associated with constructing the structures may outweigh the limited benefit they provide when constructed.

172 I accept Mr Bren's evidence. Mr Bren's qualifications and experience in forest hydrology are vast. He is eminently qualified to provide expert opinion evidence on the matter, and I found his evidence helpful.

173 As discussed earlier in these reasons, I am satisfied that Midway took appropriate measures to meet the requirements of the Code in harvesting the dead pine plantation.

174 Mr Bren notes in his report that, six years after the planting of the new blue gum plantation, the sides of the streams on the Midway property are well vegetated.[52] As noted earlier in these reasons, on my inspection of Midway's property I observed good natural vegetation growth along the sides of the streams, save for a few particular problem areas where Midway has carried out protective works. On my observation, the vegetation growth along the streams on Midway's property was more noticeable and pronounced than along the stream on the applicant's property north of the dam.

175 Having regard to the matters discussed above, I am not satisfied that Midway caused, directly or indirectly, the flows of turbid water and sediment into the dam. In my view, nature - fire and rain- was the cause. All Midway could do was take action to ameliorate the erosive impact, and on the evidence before me, I am satisfied that Midway took appropriate action.

176 The applicants point to the fact that the EPA served the PAN and the CUN requiring Midway to take action to remove sediment from the dam and to stem the flow of sediment into the dam.

177 Just as it is unclear how the EPA reached the conclusion that sediment in the dam made the dam water unsuitable for drinking by livestock, so too it is unclear as to how the EPA reached the apparent conclusion that Midway *caused* sediment 'pollution' in the dam.

178 The PAN and the CUN record the observations of the EPA including the observation of a high volume of turbid water flowing from the Midway property onto the applicants' property and into the dam. As discussed above, the notices also make statements in respect of the water turbidity test results. On the basis of the observations, and the test results, the EPA appears to have concluded that Midway, through its action or inaction,

[51] page ix, paragraph 11 in Mr Bren's report, at page 182 in the respondent's Tribunal book
[52] page ix, paragraph 10 in Mr Bren's report, at page 182 in the respondent's Tribunal book

*caused* the flow of sediment and turbid water into the dam. On reading the PAN and CUN notices, it appears to me that the conclusion was reached primarily for the simple reason that the turbid water and sediment that flowed into the dam came from Midway's property. Unfortunately, no one from the EPA was called to give evidence, leaving me with little other than the EPA notices themselves to understand the conclusion the EPA reached.

179 That turbid water and sediment flowed onto the applicants' property and into the dam is not disputed. But that is not reason enough for me to find that Midway *caused* the flow of turbid water and sediment.

180 Nor does the fact that Midway undertook considerable works at considerable expense, including removing a very large quantity of sediment from the applicants' dam, lead to a finding that Midway caused the flow of sediment into the dam. Midway has never accepted that it is liable for the alleged sediment "pollution" of the creeks and the dam as asserted by the EPA. Midway's undertaking of substantial remedial works is not an admission of wrongdoing. Rather, in my view it is an indication of a preparedness to resolve disputation.

181 On the evidence before me, I find that Midway did not cause the flow of turbid water and sediment on to the applicants' property and into the dam.

182 For the above reasons, the applicants' claims against Midway under section 15 of the Water Act fail.

## SECTION 16 WATER ACT CLAIMS

### SECTION 16(1)

183 To find Midway liable under section 16(1) of the Water Act for any of the loss and damage claimed by the applicants, I must find that Midway *caused* an unreasonable flow of water on to the applicant's land.

184 For the reasons discussed above, I find that Midway did not cause the flows of water on to the applicants' property. The flows of water were the work of nature.

185 The applicants say that Midway's activities, in particular the harvesting of the dead pine plantation without taking adequate erosion protection measures, has caused the unreasonable flow of water. As noted above, on the evidence before me I find that Midway's actions contributed to ameliorating the erosive impact of the increased flows of water caused by the fire and exacerbated by the subsequent heavy rains.

186 On the evidence before me, I find that the claims against Midway under section (16)(1) of the Water Act must fail because Midway did not *cause* the flows of water which resulted in the damage alleged by the applicants.

## SECTION 16(2)

187 As discussed earlier in these reasons, section 16 (2)(a) of the Water Act has two limbs. To find Midway liable under the first limb, I must find that Midway interfered with the reasonable flow of water onto the applicants' property, and that as a result of that interference the applicants suffered loss and damage.

188 As discussed above, as a means of countering the run-off of water across the scorched and denuded landscape, Midway intentionally left logging debris scattered across the landscape. Mr Bren and Ms Duclos agree that such action was appropriate. One of the consequences of such action is that some of the debris would be washed into and down waterways, particularly in periods of heavy rain. Having regard to this, can it be said that Midway, by distributing logging debris across the landscape, *interfered* with a *reasonable* flow of water?

189 Midway submits that, having regard to the matters to be taken into account under section 20 of the Water Act when considering whether a flow of water is reasonable, the conclusion to be reached is that, in all the circumstances, the flow of water, including the logging debris, was reasonable.

190 Having regard to the erosive nature of the landscape, the impact of the fire on the landscape, the heavy rains in 2010 and 2011 and having regard also to the actions taken by Midway after the fire, which I have found were appropriate and in accordance with the Code, I am not satisfied that any interference with the flow of water as a result of Midway's actions has caused the alleged loss and damage. The applicants' loss and damage, such as there is any by reason of a change to the flows of water onto the applicants property, was caused by the forces of nature.

191 As to the second limb of 16(2)(a), it follows from the matters discussed above that I do not consider Midway has, by negligent conduct, interfered with a flow of water causing any of the damage alleged. I have found that Midway's conduct was appropriate and in accordance with the Code. On the evidence before me, Midway was not negligent.

192 Although it is not necessary for the purpose of determining liability, I make the following further comments in respect of the applicants' claims for damages related to logging debris damage.

193 The sum claimed for the damage to fencing is $10,970 (claim item 2). Mr Speechley gave evidence that the cost of materials to repair the fencing was around $300. No source documents, such as invoices, were produced to verify the cost of materials. Most of the quantum of the claim is made up of the applicants' own time, charged at a farm hand's apparent going rate of $34 per hour, to repair fencing and to carry out numerous subsequent so

called "*forced fencing inspections*".[53] The applicants' evidence as to *when* the fencing was damaged and repaired is unclear, but it seems likely that the damage may have occurred prior to 21 April 2010[54], that is, more than six years before they commenced this proceeding. And, in my view, the claim for compensation for time spent *inspecting* fences on their farm, calculated at the apparent standard hourly rate for a farm hand, is indicative of the unrealistic nature of many of the applicants' claims for compensation.

194 The sum claimed to reinstate the collapsed dam bridge is $9400 (claim item 5). The bridge was designed and constructed by the applicants. The construction included three concrete culvert pipes, each pipe approximately 400 mm in diameter, through which overflow water would be directed away from the dam to the stream north of the dam wall.

195 There is no engineering evidence in respect of the structural integrity of the dam bridge for its intended purpose, however the respondent says there is evidence that the culverts installed by the applicants were inadequate.

196 The water flowing from Midway's property onto the applicants' property passes through 2 large culverts under Saunders Road, just south of the applicants' property boundary. The two culverts are approximately 1.8 metres in diameter. I observed them on my view of the properties. The respondent says that the size of these culverts is indicative of the capacity required to meet potential heavy flows of water. The respondent says that, as the flow of water through these culverts would be similar to the flow onto the applicants' property and into the dam, one might reasonably conclude that the significantly smaller culverts installed in the dam bridge were inadequate. The dam bridge collapsed but Saunders Road, above the two large culverts, did not.

197 While I appreciate the logic in the respondent's submission, in my view there is insufficient evidence for me to conclude that the dam bridge, as designed and constructed by Mr Speechley, was or was not structurally adequate for its purpose. What I do accept is that the dam bridge collapsed under the onslaught of an extremely heavy water flow. I have seen video footage of such a flow. As discussed above in these reasons, I have found that Midway has not caused the flows of water. There is insufficient evidence for me to find that, but for the logging debris in the water flow, the bridge would not have collapsed.

198 In conclusion, for the reasons set out above I find that the applicants' claims brought under sections 16(1) and 16(2) of the Water Act fail.

[53] The applicants use the term "forced fencing inspections" in their 'Further and Better Particulars of Loss and Damage' filed in the proceeding.

[54] See applicants letter to SAI Global at page 1036 in the applicants' Tribunal book, where they state in the third paragraph that "We contacted Midway… In September 2009 to advise them that our fences were being damaged by timber and other debris from their plantation…"

## CONCLUSION

199 For the reasons set out above, I find that the applicants' claims under the Water Act fail, and I will order that the claims be dismissed. As noted earlier, I will also order that, to the extent the applicants bring claims under the *Environment Protection Act*, such claims will be struck out. Also as noted earlier, I will order that the applicants' claim in respect of personal injury, being claim item number 1 under paragraph 5 in the applicants' Points of Claim, is withdrawn.

200 I will reserve costs with liberty to apply, and in so doing I refer the parties to sections 109 to 115 in the *Victorian Civil and Administrative Tribunal Act* 1998.

**SENIOR MEMBER M. FARRELLY**