

**From:** [bill\\_jen](#)  
**To:** [Water Inquiry](#)  
**Subject:** A National Water Authority (concept paper)  
**Date:** Wednesday, 30 September 2020 1:46:13 PM  
**Attachments:** [WATER - FINAL.docx](#)

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Dear ACCC,

I was unaware at the time I prepared this submission to the Royal Commission into Natural Disasters that you were conducting an enquiry into water trading on the Murray-Darling Basin. I see you have released an interim report which implies a final report is in progress. I submit my paper to you because I hold strong views (like many others) about the imbroglio concerning the MDB Scheme and how water generally is not treated wisely, equitably or, particularly, with an eye to the future in the face of advancing climate change. I notice it is reported (*Weekly Times*, 5/08/20) that your organisation has said "... there are scant rules to guard against the emergence of conduct aimed at manipulating market prices and no particular body to monitor the trading activities of market participants." This is just one element contributing to a complete fracturing of water availability across this continent; trading water is a concept with which I totally disagree.

I hope someone there will read my paper, consider the reasons behind the argument and acknowledge my transmission of it to you.

Yours sincerely,

Bill Robertson.

# National Water Authority

## A Concept

W.H.G..ROBERTSON

MARCH, 2020.

*‘All great questions will be dealt with in  
a broad light with a view to the interests  
of the whole of the country.’*

Sir Henry Parkes

Tenterfield, 1889

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# A NATIONAL WATER AUTHORITY

*Water, water everywhere, nor any drop to drink.*

*Samuel T Coleridge*

1772 - 1834

## Introduction

And that's the problem! Water is *not* everywhere and our people, towns, crops, stock, native flora, fauna, the environment, industry and economy are suffering. Moreover, without change, it *will* become worse under current political policy/ideology. We are in dire need of a *national water strategy*.

This paper presents a concept for administering Australia's water resources in the national interest. As a concept, it is not bristling with detail rather, it is an armoury of ideas. It suggests that our water be divided into *primary* and *secondary sources* with the former managed nationally, the latter by states. Paramount to national interest would be removal of primary water sources from all political control, influence or interference in favour of a powerful, new, independent and national body. How that might be done is explored.

Also considered is foreign ownership of Australian agricultural land and water and consequences for farmers and graziers of the Murray Darling Basin. A brief look at the Foreign Investment Review Board was required.

The rationale for establishing an independent body is presented through the prism of three recurring features of Australia's climate and geography: drought, flood and fire. This body could be called a *National Water Authority* (NWA) or revert to the name of a former body, the *National Water Commission*.

Implicitly, this paper is also about leadership. There is a need for preparedness enabling rapid, responsive and skilled action in times of disaster and emergency.

Finally, two important and supportive legislative changes are considered which, in the author's opinion, would materially assist functionality of a National Water Authority. These are a *National Integrity Commission* and strengthened whistle-blower protection.

## Drought

From the earliest days of Australia's colonisation drought was problematic. Lieutenant General Watkin Tench, a marine officer with the First Fleet in 1788, said of the 1790 - 91 drought, "*Vegetables are scarce ... owing to want of rain. I do not think that all the showers of the last four months put together, would make twenty-four hours of rain. Our farms, what with this and a poor soil, are in wretched condition. My winter crop of potatoes, which I planted in days of despair (March and April last), turned out very badly when I dug them about two months back. Wheat returned so poorly last harvest.*" Lieutenant Governor and Deputy Judge Advocate David Collins wrote, "*... at Sydney the thermometer stood in the shade at 105°F, (heat) was so excessive (being much increased by the fires in the adjoining woods), that immense numbers of the large fox bat were seen hanging at the boughs of trees, and dropping into the water ... in several parts of the harbour the ground was covered with different sorts of small birds, some dead, and others gasping for water.*"<sup>1</sup>

In 1865, George Goyder, Surveyor-General for the Colony of South Australia mapped rainfall areas for that state. Goyder's "line" crosses South Australia (east/west) joining points where average annual rainfall is ten inches (250mm). North of the line was considered potential drought country while south was rated arable. Goyder's Line has proven remarkably accurate but, with the bite of climate change becoming ever more ominous, migration of that line further south is likely. Even so, Indigenous people of that time proficiently grew and harvested grains across a huge area north of the "line." Admittedly, these grains were native to Australia but in the years since colonisation, their commercial viability could have been explored to potentially shepherd in new opportunities for successful dryland agriculture.

According to the federal Department of Energy and Environment, "about 81% of Australia is broadly defined as rangelands." These include "...low rainfall and variable climates, arid (250mm of rain p.a. or less) and semi-arid (250 – 350mm of rain p.a.) and some seasonally high rainfall areas north of the Tropic of Capricorn." These factors have led our country to become known as the world's driest inhabited continent.

With Australian droughts so well-known, comprehensively recorded and written about, the question has to be asked: why, in 231 years of white

settlement, has there not been a national water strategy developed to cope with the recurring problem of drought?

## **Floods**

The contrary challenge to drought is floods.<sup>2</sup> As a thirteen-year old I filled sandbags to help save the Red Cliffs pumps in 1956 and later, for growers to save crops at Nangiloc/Colignan. Flood damage and dislocation can run to billions of dollars, cause death and injury to people, stock and wildlife, destroy crops, increase food prices, devastate homes, buildings, equipment and sometimes, prompt the imposition of damage levies. Some of this damage could be prevented by discontinuing adverse building practices. According to Professor Jonathon Nott of James Cook University, despite known history, we “... continue to build in the path of floods ... and allow populations to increase in low-lying flood plains.”

A more useful method of flood mitigation would involve harvesting the waters. Possibly the first attempt at devising a national water strategy was proposed by Dr John Bradfield (1867 – 1943) in 1938. A civil engineer, Bradfield envisaged the use of pipes, tunnels and dams to divert waters from “the upper reaches of the Tully, Herbert and Burdekin Rivers ... to the Thomson River” west of the Great Dividing Range.<sup>3</sup> Ultimately, waters would flow to Lake Eyre. It was anticipated the scheme could service some 7,800 square kilometres of agricultural land, generate 370 megawatts of power, or more, substantially curtail natural erosion and assist with drought mitigation. Other potential benefits were a reduction of flood risk in the lower flood plains of the Herbert River and the creation of areas suitable for making bio-fuel from algae.

Like many visionaries, Bradfield had his detractors. They argued his scheme would deliver substantially less water than estimated, was impractical, too costly, contained flawed land height calculations and seepage amounts and provided “no clear evidence” to demonstrate supply exceeded evaporation rates, especially in the interior. With only sporadic support, the plan has languished.

However, on March 3, 2019, Barnaby Joyce, Former Nationals leader was reported saying, “*Here in Victoria. Bushfires and drought. We must be a nation of vision. The one thing we can do to drive a solution to reduce the effects of drought is build the Bradfield Scheme.*” Earlier that year he also said, “...if that water was to come down, we would have irrigation through western Queensland towns, through western NSW. You’d be able to fill up Menindee Lakes and deal

*with your problems basically at the lower lakes.*” In February 2019, the NSW Nationals offered \$25 million to kick start a modern version of the Bradfield scheme but thus far, little seems to have occurred.

A concept proposed in April 2014 suggested “... harvesting monsoonal rainfall in the Gulf of Carpentaria to help drought-proof Queensland, re-invigorate the Murray-Darling River system, re-charge The Great Artesian Basin and help green Australia.” The scheme could also lead to greater development in outback Australia, a population shift, security of water supply, flood mitigation and clean (hydro) energy. The author made clear that “...for significant infrastructure projects to succeed, there (has) to be a vision, political will, and funding.”

The failure to devise and develop a national water plan does not rest with any single government. For example, in 2018 the CSIRO spent \$15 million formulating “... detailed blueprints for new dams and other water infrastructure in Queensland, the Northern Territory, and Western Australia. None of those jurisdictions showed serious interest in making it happen.” This lethargy is curious. Not only did the CSIRO’s work identify 128 development opportunities that would create jobs, attract people and expand agricultural opportunities, it was also welcomed by the National Farmers Federation. Money, talent, potential employment, infrastructure expansion and time appears wasted. Who should be held to account?

We know that construction of a major northern catchment as part of drought-proofing the country is achievable. Hydraulic engineering has been around for centuries and Australia has progressed significantly since construction of the Snowy Mountains hydro scheme. Perhaps a water conservation and distribution scheme on par with China’s Three Gorges Dam, is not an impossible dream provided problems of inconsistent water levels harm neither the environment nor the people. Leadership, courage, vision, political will and funding would make it happen.

## Primary Water Sources

In this paper primary water sources are those which meet the bulk of Australia's need for water across almost endless activities in primary, secondary and domestic fields. The principal source of this water is rainfall held by streams, rivers, lakes, wetlands and major dams where diversion is primarily controlled by licence. The use of groundwater, such as the Great Artesian Basin, is another primary water source where licences are required by all states.

## Water disharmony

The entire country has seen, and in many parts experienced, the present crippling drought. Almost daily we hear of appalling hardship. Farmers selling their stock to survive, years of exacting genetic breeding and experience sacrificed to overseas buyers, stock deaths from thirst or destruction, tons of topsoil dispersed across the country from dry storms; properties in families for generations, sold; marital breakdowns, general and mental health pressures, suicide; volunteer organisations like the Country Women's Association and others, stretched to capacity, kids, who should be at school, regularly having to help out on the farm. We know too that remote and rural townships are withering from hollowed economies, lack of water, severe restrictions or surviving on trucked in water.<sup>4</sup> The Banking Royal Commission revealed devious, harsh and unforgiving policies too often imposed by those institutions resulting in unwanted farm sales, another sorry and unwanted stress. These are some of the circumstances that compel new thinking and drive the need for a different way of dealing with droughts and floods.

The severity of *this* drought has wrought unpleasant and adverse consequences within communities, families and individuals and, in this summer of 2019 – 20, convulsed in catastrophic bushfires. The term “unprecedented” has been used many times during the currency of these fires, fires that bind the drought to the blindingly obvious effects of climate change. Capturing, storing, distributing and managing water, *equitably*, has now become an incontestable national imperative. It is part of climate change because it is indisputably tied to rainfall.

Water is integral to mining, plastics manufacture, electronics, apparel industries, all forms of agriculture, sanitation, parks, gardens, sports centres and domestic living. The demand for, and use of water in a variety of circumstances is almost endless. *Everybody knows this*. Indeed, the United Nations (UN) considers access to water a human right.<sup>5</sup> Ban Ki-Moon, as

Secretary General of UN "... warned the World Economic Forum in 2008 that environmental stress, due to lack of water, may lead to conflict, and would be greater in poor nations ... As the global economy grows, so will its thirst. Many more conflicts lie just over the horizon." In Delhi, right now for instance, the lack of water is so bad its citizens have turned to the mafia and perpetrated murder to obtain supplies. Australia, whether we know it or not, maybe traversing that pathway.

Competition for water is fierce, insistent, diverse and acrimonious. Criticism of the Murray-Darling Basin Scheme is probably our best-known contemporary water controversy. Component parts of that controversy range from allegations of corruption, gross maladministration and negligence to water theft. Accusations of water deprived environmental needs have been levelled to the extent of ecological catastrophe (fish kills and excessive draining of Menindee Lakes) along with a belief that "... the Murray-Darling Basin Authority has shown itself to be unwilling or incapable of acting lawfully." Acrimony about water sharing was evident during and after South Australia's Royal Commission into the Murray – Darling Basin plan. The Commission noted it "... was hampered by the federal government which blocked its bureaucrats from giving evidence." Subsequently, the water minister for NSW, Niall Blair and Deputy Premier, John Barilaro "*... made clear they would resist further cuts to the water entitlements of farmers, as recommended by the Report. We will fight tooth and nail for our rural and regional communities ... they need certainty. They need to know they have a future in towns they love, communities they work in and the places they raise their families. The gloves are off when it comes to fighting for our water rights.*"

The federal government's decision to not participate in the South Australian Royal Commission and the New South Wales Deputy Premier's attitude towards it confirm a level of myopia that is breathtaking in its failure to demonstrate leadership in the national interest.

Clearly, *everyone* would like the degree of equanimity and certainty advocated for NSW, but Barilaro's perspective selfishly ignores the "rights" of other water users outside that State. Juxtaposing the New South Wales position with that of Ban Ki Moon confirms that a more holistic and statesmanlike means of managing water for the whole of Australia is very much needed. A body independent of government and mindful of all these complexities is essential.

## Water Rights/Entitlement <sup>6</sup>

For me, a person from the land - a soldier settler's block at Red Cliffs, Victoria – the de-coupling of water rights from property where their use is directly needed was lunacy. Implicitly, *anything* offered for sale embraces a desire for profit. Obsession with profit drives greed, the harbinger of patronage and corruption, both of which are exacerbated when the regulatory framework is opaque. John Anderson, former Deputy Prime Minister and champion of saleable water rights, obviously did not foresee the potential for corruption or the massive profits embedded in a “water market.” <sup>7</sup>

According to the 2011 short history of water markets in Australia, tentative steps towards water trading were being considered in the 1980s.<sup>8</sup> Back then, the process was controlled, incremental and allowed only temporary *seasonal* trading. Nationally agreed water reform packages emerged in 1994 and 2004 enabling sales within states, then across state borders to embrace the Murray–Darling Basin. Change drivers included government reluctance to fund large-scale water infrastructure, an *assumption* that government driven water development was questionable, a perception that increased international competition in commodity markets was an agricultural negative and increasing awareness of the environmental needs for water, including the impact of water storage.

Subsequent change brought a statutory platform for tradeable water entitlements, trading rules reflecting hydrological realities, “tools” for managing third-party impacts and robust trading platforms and accounting systems. All this was underpinned by a perception at the *National Water Commission* in 2011 that “... the market system in place is functioning effectively, if not completely efficiently.” Their Report went on to say of social and environmental outcomes that “... (m)any of the feared potentially adverse social and environmental impacts of water trading have not materialised (because) market rules and complementary policy tools have helped manage these impacts.” Yet among challenges perceived at the time was “... community concern about loss of water from some regions and the possible emergence of ‘water barons.’” Those concerns have now become stark reality as shown by a BOM report revealing water trades increased during 2017 – 2018 to bring a net turnover worth \$2.4 billion.

The Four Corners Program of 24 July, 2017 informed us that some \$13 billion had been spent on protection and restoration of the Murray-Darling Basin. We

learned too that a handful of people had acquired “water rights” and amassed huge quantities of water, some of which was taken during periods of *low flow* and some by circumventing meters *supposedly* measuring extraction volumes. In essence, the water was **stolen**. The camera crew travelled by boat identifying locations where this was happening. Staff from the NSW Environmental Defender’s office were sent to investigate ... then stopped from doing so. Who was responsible for that decision? Why was it done? Who benefited? What was the benefit? Answering these and other questions ultimately became the responsibility of the NSW *Independent Commission Against Corruption*.

Yet corruption is not the only way that water disappears. Currently, many Australian farmers are in dire straits due to lack of rain. Yet even those farmers fortunate in having water rights are, in many cases, being short changed. How? Foreign ownership or, in the words of the concerned communities in 2011, ‘water barons.’

## Foreign Investment <sup>9</sup>

Concern about foreign ownership of Australian assets is not limited to water, although it is one of the more significant concerns. The beating heart guiding foreign ownership is the Foreign Investment Review Board. Long considered a resource rich country, foreign investment in Australia has been *the* central plank for boosting capital to expand and consolidate local development for more than two centuries. Between the 1960s – 1980s, foreign investment policy was considered far more restrictive than the policy of today. In 1975 however, foreign investment policy was formalised to “... encourage foreign investment on a basis that recognises the needs and aspirations of Australians.”

According to Treasury, “... the more recent trend to liberalise the foreign investment regime ... is in response to ... growing evidence of the benefits of foreign investment, the increasing depth and breadth of the economy and the implementation of other supportive policy and legislative measures.”

Established in April 1976, the Foreign Investment Review Board (FIRB) is a non-statutory body advising the government on foreign investment policy, the Foreign Acquisitions and Takeovers Act 1975 and policy compliance. Comprising part-time, non-government members and a full time Executive Member of Treasury, FIRB’s functions are *advisory* only. Responsibility for decision making and policy formulation rests with the Treasurer.

It all sounds good, but is it? How transparent is FIRB? What level of communication informs the public of proposed or intended asset mergers or takeovers? How many Australians would know, for instance, that “smaller proposals” in the “majority of industry sectors” are exempt from FIRB notification? Larger foreign investment proposals are FIRB endorsed unless judged contrary to national interest i.e., “the widely held community concerns of Australians.” Yet signed confidentiality agreements built into contracts involving FIRB are capable of breach with impunity if there is no malicious intent.

Insight to FIRB’s functions and transparency is available through an examination of Queensland’s Cubbie Station. In mid-2012, *Lempriere Pty. Ltd.*, an Australian wool trading company established in 1857, joined with *Shandong Ruyi*, a private Chinese company. The purpose was to buy Cubbie Station, a huge cotton producing enterprise with enormous water resources. At “the point of purchase,” *Lempriere P/L* held a 20 per cent stake, *Shandong Ruyi*, 80 per cent. A controversial deal stoking community unrest, this potential sale went to FIRB.

In October 2012, scrutiny of the sale went before a Senate Estimates Committee which summoned Mr William Lempriere (Managing Director) to answer questions.

The Committee's first concern involved *Shandong Ruyi's* undertaking to reduce its 80 per cent share to 51 per cent within three years, an undertaking the Committee noted was *not* sought by FIRB but offered by Shandong Ruyi. Keen to see this reduction occur, the Committee explored how this might be done and was told the Minister could enforce divestment, a practice that had occurred where real estate undertakings had not been honoured.

The Committee's second concern was the extent to which the joint parties would manage Cubbie Station on a commercial basis. Lempriere was able to assure the Committee of an agreement with the Treasurer that Cubbie's manager would have the "full freedom and independence to run the station as he saw fit and to process and sell product locally." He also affirmed the venture would be run to ensure profitability and that tax would be paid in Australia. The Committee queried the "full freedom and independence" arrangement as the joint venture documentation was still in draft form. Lempriere again assured the Committee the agreement was binding. Again, the Committee noted the agreement was *not* something requested by FIRB but arose from discussion between the joint parties.

Significantly, the Committee reported upon FIRB saying:

- They were frustrated by the difficulty of uncovering information from FIRB.
- They were confronted by a dearth of information about the FIRB process.
- FIRB lacked a systematic approach to conducting the national interest test.
- While acknowledging input from numerous government departments, the flexibility of the (FIRB) system is potentially detrimental to Australian agriculture.
- They were concerned about lack of publicly available information regarding cases reviewed and decisions made about foreign investment in Australian agriculture.
- There was little evidence to suggest the current regulatory framework and the FIRB national interest test could effectively prevent foreign

government owned entities from acting in a manner that could distort Australia's agricultural and trading markets.

- They were not convinced by FIRB that 'soft power' and 'international pressure' provided incentive for foreign government owned entities to comply with conditions that may be placed on foreign acquisitions.
- FIRB's compliance powers seemed outdated.
- FIRB's process did not follow a standard pattern.
- A clear absence of effective compliance arrangements for the years following FIRB approval shows potential for foreign investors to act in ways contrary to the national interest. Continued oversight of foreign investors after approval is necessary.
- The FIRB review process relies as much on the goodwill of prospective foreign investors as it does on scrutiny by FIRB.
- The sale of Cubbie Station is an illustrative example of how the FIRB process often causes unnecessary public doubt about whether the national interest is being upheld.

Subsequently, on 2 August 2019, ownership of Cubbie Station was again divided by sale between Macquarie Infrastructure and Real Assets (49%) and Shandong Ruyi (51%). The station would continue operations under a long-term agreement with no change to the "on-property management team." Additionally, the two parties entered a binding agreement to voluntarily contribute water (up to 10 GL) to the Culgoa River and Lower Balonne streams when most needed. No compensation would be provided by either the Commonwealth or Queensland governments for this water which the joint owners said was preserved for environmental purposes and to "... increase the volumes available in low and medium flow scenarios."

Notwithstanding the \$51M invested by the Chinese in Cubbie since 2012, Cubbie's water remains problematic. *The Herald and Weekly Times* (18 March, 2020) reported that 1.5 million megalitres of Queensland floodwater had flowed past the streamflow gauge of the Balonne River at St. George since approximately the beginning of February, 2020. Of this, only about one third reached the NSW border due to flood plain losses and capture by Cubbie Station. Some 537,000 megalitres of the Queensland flood water – a capacity greater than Sydney Harbour – was diverted to Cubbie's storage dams in accord with their legal entitlements. It is expected that only about 170,000 megalitres will

reach the parched Menindee Lakes. Little, if any, will arrive at Wentworth below Menindee. In the context of these figures, while the donation of 10,000 megalitres by Cubbie to the environment is welcome, given the volume of water retained by the station, it is little more than a drop.

Cubbie is a microcosm of the distrust, anxiety, toxicity and general public concern about the entire Murray-Darling Basin Scheme. The MDB plan has become a calamitous imbroglio: there are differences in water regulations between states, differences between irrigators and farmers to the north and south of the Murray-Darling Basin, wilful ineptitude and failure to listen by scores of politicians over decades, changing plans for the Basin over time, a dearth of transparency from a variety of government organisations (state and federal), mismanagement and corruption, and, most difficult of all, the inescapable fact that states still own the waters comprising, or feeding, the Murray – Darling Basin.

Given the longevity of the current drought, the severity of the 2019 – 2020 bushfires and increasing adversity born of climate change, Australia must act now to find a permanent solution to the distribution of, access to and use of our most cherished resource – water. Part of that solution should, of necessity, include a reconsideration of foreign ownership of our water and, like New Zealand, the FIRB process here should have legislated criteria for decision making together with fully published decisions and the reasons for them to bring about greater openness and transparency. In light of criticisms raised by the Senate Estimates Committee about FIRB regarding Cubbie Station, Australians can have little to no faith in FIRB decisions involving agriculture and water.

A register compiled by the Australian Tax office shows “one in ten water entitlements is foreign owned.”<sup>10</sup> On television recently, David Littleproud, former federal Minister for Water Resources said words to the effect that he did not think foreign ownership of our water was alarming. The \$80M *Weilong Grape Wine Company* at Karadoc in Victoria aggregated its water rights through purchase and applied for additional rights. *We ... are providing scarce water to make a product exported to China that is unavailable to Australians. In other words, giving a limited Australian resource to a foreign power, a far more serious problem than the currently confected problem of boat people.*

Some \$4 billion of Commonwealth funds provided to irrigators has enabled “huge corporate expansion in the Murray-Darling Basin.”<sup>11</sup> *Webster Limited*, principal producer of Australia’s walnuts, 19.5% owned by a Canadian pension fund, received \$41M from these funds to buy hundreds of square kilometres in the Murrumbidgee Valley. This was more than half Webster’s long term \$78M plan. Their plan is to “... build dams to store more than 30 billion extra litres of water and irrigate an extra 81 square kilometres of land, developing much of it into prime, irrigated cotton country.” Professor Richard Kingsford, a river ecologist from the University of New South Wales poses an interesting question about this concept on the basis of his thirty-year study of the area: “...why are we building these large dams for **private gain at public cost?**” Why indeed? He argues the dams will be holding water that *should* be flowing downstream to habitats and farming communities of the Murray – Darling Basin. As mentioned in 2011, these dams will *decrease* the amount of water in the river. So, it appears that private gain at public cost is to ensure a regular supply of water for bigger nuts.

The Burdon properties at Moorook, near Loxton SA were bought by *Attis Farms* around June, 2018. Burdon’s owned 300ha on two titles which included 160ha of established almond plantation. A further 65ha could potentially expand that plantation. Apart from its three houses, modern plant and equipment and high-quality structural improvements, the property boasted a “substantial River Murray water licence of 1700 megalitres.” Records show land and improvements sold for \$4.9M, water rights for \$6.8M. *Attis Farms* is led by Brisbane based director, Andrew Strahley “who heads ... the Australian operations of ... Boston-based *Hancock Agricultural Investment Group* which manages \$4.3 billion worth of farmland assets on behalf of public and private institutional investors.”<sup>12</sup> Institutional investors have little or no loyalty to farmers or their land, their key focus is return on investment. At present, almonds pay handsomely. Since China raised its purchases of Australian almonds from about five per cent to more than fifty per cent, *Select Harvests*, Australia’s second largest almond producer, has delivered a net profit of \$53M for the financial year 2018 – 19, up 160% on the previous financial year.

What these examples have in common, apart from the element of foreign ownership, is the power of large investors, **water barons**, and their considerable financial potential to displace local farmers who cannot compete on equal terms. And, even though South Australian Royal Commissioner Brett Walker, S.C., rejected the notion that water buybacks decimate the economies

of rural towns, river communities disagree. They acknowledge a farmer can make money from selling his water rights, but the fear is those sales "... might make it harder to deliver water to other irrigators (and) reduce the whole district's capacity to grow things ... affect employment, (cause) people to go elsewhere ... hurt businesses in town ... or cause the local school to close." Those farmers and river communities comprise people the Prime Minister has termed "**quiet Australians**," ordinary folk who perceive government policies skewed in favour of big business. That perception is their reality.

Recently, with input from *The Australia Institute*, a **60 Minutes** program, "*Water Rats*," presented problems concerning the Murray-Darling Basin Authority and water allocations. Controversy surrounding the integrity of that program and whether its reporting was honest "ping-ponged" across the internet, including a call by the member for Murray, Helen Dalton, for David Littleproud to be sacked from his Ministry. Key allegations, some of which were conjectured by the National Water Commission in 2011, included:

- Water flowing past farmers properties which they could not touch.
- Water being sent downstream to reach almond plantations.
- Flooding of the Barmah Choke causing ecological and environmental damage.
- Government departments unable to provide evidence of environmental benefits from the huge volumes of water being released.
- Allegedly, the then Minister for Water Resources, David Littleproud, knowing nothing about it.

From the MDBA's perspective, it was not a positive presentation. If **60 Minutes** was truthful - a notion rejected by the MDBA which has since lodged a formal complaint – the content was genuinely concerning. Yet irrespective of hostilities between parties, the program *was* patently clear that the MDBA was failing in transparency and effective communication with the public which, after footage of the horrendous Darling River fish kill, is deeply troubled by what is seen as gross environmental mismanagement. Mismanagement *not* from natural disaster - insufficient rain - but *man-made mismanagement*.

In his new role as Inspector-General of the Murray-Darling Basin, former AFP Chief, Mick Keelty has, in his early quest for answers and information, found state bureaucracies to be obstructive and unco-operative. There is no compulsion upon them to respond. He says, "... *no sanction for them (and) some people gave me false ... or incomplete information.*"<sup>13</sup> Actions and attitudes like these

could cast shadows about information provided to Senate Estimates hearings, such as that of 31 October, 2019, where staff from the Commonwealth Environmental Water Office confirmed a water entitlements purchase worth \$78.9M from *Eastern Australia Agriculture*. This purchase has **not** yielded any water due to drought. However, it did enable the government to “... fulfil its *on-paper* obligations to buy back the entitlement to specified volumes of water from licence-holders so water can be returned to the environment,” notwithstanding it could take seven years for actual water to become reality and flow where needed. Such responses are little more than a thimble and pea trick, or, to borrow an old description about the culture of the federal bureaucracy, a classic example of *deny and hinder*.

Of more pressing concern is the prospect of dwindling water supplies to key reservoirs across the country. This will have an impact on the “seven year” waiting period put to the Senate Estimates Committee. A new study of 222 catchments by NSW scientists has shown that all were headed for a reduction in storage reliability by an average of 20%.

## Groundwater

Groundwater is a subterranean water source of variable quality requiring careful allocation. “Recharge,” or return of water to subterranean storage, is “... typically very small compared to the volume already in the aquifer,” <sup>14</sup> meaning, large storages take years to accrue. It is, therefore, a clearly finite resource. According to the Bureau of Meteorology (BOM), the volume of groundwater compared to surface water (excluding sea and ice) is approximately thirteen times greater than the volume of all surface water (lakes, rivers, wetlands). While Australia, due to its aridness, is considered to have a groundwater to surface water ratio greater than thirteen, aquifer sustainability remains “subject to climate, extractions and population growth.”

BOM classifies groundwater into upper, middle and lower aquifer groups, terminology aligned to the National Aquifer Framework. Over a five-year review period (2012 – 2017), it was found that 70% of the water in the upper levels was **average to below average** across most of Australia and **declining** (51%) or **stable** (39%). Only 9% of monitoring bores revealed a rising trend. Similarly, groundwater in middle and lower level aquifers showed a declining trend, although 2015 – 2016 data revealed that trend was slowing.

Is this knowledge important? As far back as the early 1900s it was recognised that controls over access to and use of groundwater were inadequate. Substantial volumes of water were lost (seepage/evaporation), wasted or stolen. From 2018, the draft of a second strategic management plan for the Great Artesian Basin (GAB) became available for comment. Consultation occurred between governments of the Commonwealth, territories, states, Great Artesian Basin Coordinating Committee and included submissions from the public. Knowing this resource is amongst the largest in the world (the GAB underlies approximately 22% of Australia), and finite, the management plan takes a “principle-based approach to guiding governments, industry and the community” in water use.

While rancour and bickering between states, communities, interest groups and water users about management of the Murray – Darling Basin Plan continues unabated, management of the GAB has, seemingly, drawn little opprobrium. All states have legislation to regulate ground water use incorporating provisions that, *inter alia*, require a licence to draw water, stipulate allocation volumes, compel permits before sinking bores, require use of licensed bore drillers, have mandatory requirements for water meters and records of water taken.

Yet, when it comes to mining, controls are flexible, perhaps even contradictory. For example, in 2017 the Queensland government enabled the Adani Carmichael mine “... to extract unlimited amounts from a water body that feeds into the Great Artesian Basin.” In 2018, according to a document headed “Business Queensland,” volumetric water licences “... **limit** the volume of water for use by mines, businesses, local councils, feedlots and irrigators.” These two statements by the Queensland government not only conflict, but immediately raise questions about transparency, patronage and principle.

The federal government amended its *Environment Protection and Biodiversity Conservation Act 1999* to “... include water resources as a matter of national environmental significance when affected by coal mining or coal seam gas extraction.”<sup>15</sup> Their advisory article stipulates that “... primary responsibility for regulating environmental impacts associated with the resource sector *rests with state and territory governments*. Thus coal, and coal seam gas activities are primarily assessed and regulated by state legislation which also includes flood and pollution control measures.”

In situations where federal and state legislation conflict, federal legislation is superior. Where coal and coal seam gas are involved, federal legislation defers to the state and takes a myopic focus on environmental matters. This situation facilitated serious problems for cotton grower, George Bender. Mr Bender, a Chinchilla farmer took his life after a **ten-year-battle** with CSG because his bores were “sucked dry” as a consequence of gas drilling. The Bender family said, “*Over the last decade, George stood up to a number of big gas companies, including QGC, Arrow and Origin. In George’s view, all had the same intent and agenda: their interest was in getting the gas and they didn’t really care about the lives of the farmers on whose land they would trample to access it.*” George Bender lost his water and the company responsible was required to make good on the loss of “... two crucial water bores for fifteen months.” At the time of his death that still had not happened. It would appear that both federal and state governments have ensured that coal seam gas drilling is *not* on the side of farmers.

While we don’t know how often these kinds of skirmishes are replicated across Australia, the Bender case is a stark reminder of Ban Ki Moon’s reference to “water conflict”. In South Australia, the conflict was different. There, the government and BHP Billiton came to an agreement allowing BHP’s Olympic Dam Mine to expand. As a result, BHP would, *for the first time*, pay for water extracted from the GAB. The rate was determined at \$0.0318 k/l and capped at \$0.10 k/l over a thirty-year period resulting in an annual fee to the government

of \$1.3 - \$1.5M. Independent environmental consultant, David Noonan, has said that for this precious resource, BHP is not paying enough. Knowing the limitations of groundwater, this agreement begs the question as to how much water BHP had previously taken firstly, without fee and secondly, to the detriment of GAB storage.

Given the:

- severity of our current drought,
- varied nature of demands on the GAB,
- slowness of aquifer replenishment,
- continuing depletion of the GAB,
- actual and potential conflict over access to water from the GAB,
- adequacy of fees charged for GAB water,
- unedifying preference for economics (mining royalties/employment) over human wellbeing,
- federal government's recent focus and emphasis on mental health – remote, regional and city
- malfeasance in regard to water usage

it is time re-examine the “principle-based approach to guiding governments, industry and the community” regarding use of GAB water. A more balanced, national and rational perspective is required because, apart from anything else, **nothing** can justify a ten-year battle over water between a farmer and a private company (CSG) resulting in loss of life.<sup>16</sup>

## Secondary Water Sources

### Desalination

For the purpose of this paper, secondary water sources are those which provide water from the process of desalination or water recycling. It is argued herein that responsibility for progressing, increasing and improving both volume and quality of water from these sources should become an essential objective for the states as they release responsibility for managing and maintaining dams, reservoirs, rivers and creeks. To assist that objective, information acquired by the federal Department of Agriculture in pursuit of research about water recycling together with increased funding for infrastructure on related projects should be devolved to the states.

The availability and distribution of water is essential to any assessment of the long-term effects of climate change. We know with clarity some of the visible effects of that phenomenon: droughts, fires, floods, unusually fierce storms and crop reduction. An accompanying challenge is Australia's increasing population. George Megalogenis suggests "... The rise of Melbourne is shaping up to be the social and economic story of the 21<sup>st</sup> century, tilting the population south for the first time since the full employment era of the 1960s." He says "... Melbourne is growing at a faster rate than any capital or regional city in the country and ... (should become) ... our most populous city ... before the end of the 2020s." He notes that between 2008 – 2018 "... Greater Melbourne grew by one million people pushing its population past five million. ... Sydney added just over 800,000 (in) the same period to reach ... 5.2 million while Brisbane ... increased by 450,000 to 2.5 million." <sup>17</sup> These significant numbers will add stress to water consumption and, without expansion of secondary water sources, exacerbate any reduction of water availability incurred by climate change.

Desalinated seawater is a useful and readily available source of potable water. Initially obtained from simple boiling and steam condensation or trapping salt from water through clay filters, desalination has been used for thousands of years.<sup>18</sup> State governments throughout Australia, with the exception of Tasmania, the ACT and Northern Territory have, since 2006, been installing desalination plants to bolster water supplies for capital cities. It is a process that potentially provides employment for scientists, planners, architects, builders, electricians, plumbers, engineers, gardeners, road construction

workers, administrators and others in new work as well as re-engineering older sites and buildings.

Perth was first to install desalination (2006) and, together with recycled water (2%), groundwater (40%) and dams (10%) generates supply for the city and surrounding suburbs. Two plants now service those needs. During 2013 -2014, approximately 289 million cubic metres of de-salinized water was delivered to Perth, the Goldfields and agricultural regions and parts of south west WA. Initial investment in creating Perth's two desal plants totalled \$1,787M.

Generating potable water by desalination is expensive. The Gold Coast plant (2009) cost \$1,200M, Sydney (2010), \$1,890M, Melbourne (2012), \$3,500M and Binningup, WA (2012), \$1,400M. Additional expenses are generated from processing and energy costs which vary between 50 – 70% of total operating costs. Moreover, the saltier the water, the greater are running and maintenance expenses. As noted by Dick Smith, the cost of producing desal water is considerably greater than clean water processing so places like Saudi Arabia use renewable energy (solar/wind/battery) to reduce those expenses. Australia potentially has an abundance of that energy form on its doorstep.

To assist major population centres acquire potable and reusable water, the federal government, through its Department of Agriculture, has developed a National Urban and Desalination Plan to "... secure water supply and reduce reliance upon rainfall dependent sources. The plan ... provides ... funding support for infrastructure projects and research in desalination, water recycling, storm water harvesting and reuse." Increased funding from this source would both progress and consolidate the state's role in accepting enhanced responsibility for developing secondary water sources.

According to the Department's desalination Fact Sheet, the process "... provides a climate-independent source of water for critical human needs and economic development (industry and agriculture in particular). It is an effective way to secure water supplies against the effects of climate change, a growing population and drought." Curiously, in 2011 the *Productivity Commission* wrote that "... while investment in desalination plants ... might have been appropriate in the circumstances to maintain security of supply, there is sufficient evidence available to conclude that many projects could have been:

- Deferred for a number of years.
- Smaller in scale.
- Replaced with investment in lower cost sources of water where ‘... sources ... can include rural-urban trade and aquifers.’”

Prima facie, the Commission’s argument appears to ignore climate change, a major effect of which is the present drought, building, but not broadly acknowledged, from 2011. This view is bolstered by the *Water Research Centre* at the University of New South whose Stuart Khan said, “*there are inland towns who (sic) came very close to having to build recycled water plants at the end of the millennium drought. That’s really going to be the next viable option (for those towns) ... they will have very few choices and they will be pushing to be able to develop potable water recycling in order to sustain their communities and cities.*”

The Commission’s perspective apparently had little regard for the slow rate of aquifer recharge and the effects of bushfires. Fires can render stored drinking water and catchment areas toxic for months as a consequence of ash. Criminal conduct too cannot be ignored. When steep catchment slopes are logged illegally the possibility of soil erosion and water contamination may lead to “...increasing turbidity, salinity ... and nutrients which can result in algal blooms.”

Desalination, water recycling (sewage and storm water harvesting) and household rainwater capture are obvious means of augmenting water supplies. Notwithstanding cost of implementation, these are measures to be seriously considered and planned for *now*, for future generations. Achievement requires not only vision, political will and funding, but unity of purpose: Labor, Liberal, Greens and Independents. In this, the driest continent, water shortage is a challenge for the nation which demands long-term planning and political cohesion for the common good, a precept that must override any notion of party-political ambivalence. The *Snowy Mountains Scheme* is a standout in this respect – a project spanning twenty-five years (1949 – 1974) encompassing seven Prime Ministers and three political parties.<sup>19</sup>

## Climate Change

Helen Keller once said, “*the only thing worse than being blind is having sight but no vision.*” Lamentably, that statement sums the ethos of Australia’s Liberal governments in particular over the past forty years when it comes to climate change. Kerry O’Brien noted in his book, *A Memoir*, that climate change was among the big global challenges being debated on *Lateline* towards the end of the seventies. He said at the world’s first climate conference in Geneva (1979) scientists from fifty nations pleaded for urgent action to avoid a global catastrophe. “*They knew,*” says O’Brien, “*practically as much then as we do today.*” A succession of governments here has, since then, taken no credible action to mitigate climate change, rather, Australians have been compelled to observe unseemly, childish, politicised bickering within and between the major parties about the problem.

Former Prime Minister, John Howard opined that debate over climate-change had simmered in Australia for some time, though nothing “*... exceeded the perfect storm which crashed onto the environmental debate in October – November 2006, dramatically recasting the politics of global warming within Australia.*”<sup>20</sup> He cited four elements:

- The Victorian bushfires
- The impact of drought on the Murray-Darling river system,
- Al Gore’s film and tours about climate change, *An Inconvenient Truth*
- Sir Isaac Stern’s climate change report commissioned for Prime Minister Tony Blair arguing that the scientific evidence regarding the phenomenon was overwhelming as was the need for urgent global action.

Prior to 2006, Howard had acknowledged “*most published scientific work supported (the) conclusion that mankind had ... contributed to the growth of greenhouse gas emissions ... and something had to be done.*” Further, “*... a symbolic act seemed the perfect answer and ratifying the Kyoto Protocol satisfied the desire to ‘do something’.* That there was no immediate cost made that action even more attractive.” Howard contended Australia met the Kyoto emissions targets without ratifying the Protocol and because other polluting countries refused to ratify the Protocol, Australia would follow suit until they signed up. His argument against ratification was that industries within Australia having high emissions would be penalised more heavily than similar industries in China or Indonesia. Apart from that, he considered the Protocol was already becoming obsolete and required updating, a point he

made in November 2006 when he argued for “*a more comprehensive world agreement.*”

Howard did, however, acknowledge the ground was shifting in the business sector.<sup>21</sup> Some were signing up to the climate change agenda, others perceived new business opportunities in emissions trading, many believed the science and others considered an emissions trading scheme was inevitable and business should be in it from the jump. In spite of business changes, and while convening a taskforce to provide advice on the form and responsibilities of an Emissions Trading Scheme, both domestically and internationally, Howard remained wedded to fossil fuel industries (coal, oil, gas), was receptive to nuclear power but “... acknowledged a role for renewable energy.” While he claimed to be agnostic about climate change and doubted “... many of the more alarming predictions,” he also downplayed the economic risk as well as the social and ecological impacts attaching to the phenomenon. Kerry O’Brien, on the other hand, asserts that in his twenty-five-year coverage of climate change, two elements remained consistent: “scientific evidence regarding global warming *and* the human connection to it (becoming) stronger and stronger.” Over this time too, action by vested interests had become more concerted in attempting to deny and/or discredit that science.

When Kevin Rudd was elected Prime Minister in December 2007, climate-wise, things began to change. He identified climate change as a great moral challenge and, after gaining power, ratified the Kyoto Protocol. According to O’Brien this was easy because Labor’s policy for emissions reduction accorded with the Protocol. Penny Wong, as Rudd’s environment Minister, became instrumental in setting new emissions targets for a meeting in Copenhagen in 2009.

But climate change was neither easily understood nor managed. It was complex, riven with vested industrial, commercial and financial interests, suffered from governmental complacency, mockery and obduracy, overweening ignorance and, despite the availability of superb scientific advice, the notion of climate change was subjected not only to denial but ridicule. Hence, in Australia, there was a policy black hole in regard to direction, action and outcomes. In short, there was a lack of political leadership. For many politicians, climate change has been a black and white issue to which many have remained steadfastly opposed. Prime Minister Tony Abbott did nothing to progress an understanding of climate change to enable Australians to make informed decisions about the nature, extent and potential ramifications of the problem. Nor did he attempt to formulate genuine plans in preparation for the

“alarming predictions” rejected by Howard, one of which has now emerged as horrendous fires of enormous scale, bludgeoning force and deadly impact. It is probable that neither Howard nor Abbott would welcome Origin Energy’s recent warning “...against extending the life of coal plants without the government providing a ‘carbon signal’ and urging an end to the decade-long energy war to help spur investment and shift the electricity grid towards renewables.”

Even newly appointed drought coordinator, Shane Stone, could not unequivocally acknowledge the effect of climate change on drought saying he was “... acting as a ‘public servant’ and his opinion was not relevant. I am here trying to work through different measures that will help people who are confronting one of the worst droughts on history and you want to line me up and ask me whether I believe in climate change or not.” Stone implied to the ABC it was a ‘gotcha question.’ He said he believed the climate was always changing. Yet, as Mike Seccombe of *The Saturday Paper* (16 – 22 November, 2019) noted, the refusal of the Morrison government to discuss the science linking climate change and bushfires may, in the words of former Howard adviser, Geoff Cousins, be compared to the tactics of the American gun lobby. Regularly after mass shootings in the USA, the gun lobby declares *now is not the time to talk of this event, rather it is time for families to mourn, to grieve, to heal*. Words similar to these have been used by Prime Minister Morrison and NSW Premier, Gladys Berejiklian during the current bushfires, bushfires that have revealed much of the world is deeply affronted by the “ostrich-like” approach to global warming taken by a succession of Australian governments.

So, what is climate change? <sup>22</sup> Steven Pinker describes it succinctly as the burning of coal, oil or gas to form carbon dioxide (CO<sub>2</sub>). While some dissolves naturally in the ocean, combines with rocks, or is taken up by plants, these natural “sinks” cannot accommodate the thirty-eight billion tons released into the atmosphere annually. He writes of gigatons of carbon having gone up in smoke to the extent that atmospheric CO<sub>2</sub> has risen from some 270 parts per million (ppm) pre-Industrial Revolution to more than 400 ppm today. CO<sub>2</sub> traps heat from the earth’s surface causing temperatures to rise (0.8 degrees Celsius) with 2016 being the hottest year on record. Further warming has resulted from destruction of carbon absorbing forests (Central and South America, South East Asia, Africa and Oceania), methane from leaky gas wells, melting permafrost and cattle. With the reduction of ice and snow, a source of heat diminution has been lost because of increased temperatures, thus exposing dark, heat-

absorbing land and water. The sum total of these various actions – release of greenhouse gases – will, if they continue, result in a rise of earth’s average temperature by at least 1.5 degrees Celsius – or as much as four degrees – above pre-industrial levels. The effect will cause more frequent and severe heatwaves, more frequent floods in wet areas, more droughts in dry regions, heavier storms, more severe hurricanes, lower crop yields in warm areas, extinction of species, loss of coral reefs, an average rise in sea levels of between 0.7 – 1.2 metres, flooding of low lying areas, disappearance of such places as the Solomon Islands, loss of arable farming land and the displacement of millions of people. Of these catastrophic events the World Bank said in **2012**, this “simply must not be allowed to occur.” But, as Peter Hannam’s article in *The Age* proclaimed on Saturday, March 26, 2016, “Time is running out for climate.”

**Science** *has to be* the over-riding authority for the existence or otherwise of climate change – not politics. Politicians too easily succumb to vested interests which makes it all the more disappointing to observe how quickly the science was accepted and applauded in dealing with Covid 19.

Below are *my* choices of just some of the significant periods recorded from a climate change history developed between 2003 – 2019 by Spencer Weart and the American Institute of Physics:

- 1800 – 1870 Atmospheric carbon dioxide measured - later compared with CO<sub>2</sub> in ancient ice – at 290 ppm.
- 1896 Arrhenius publishes first calculation of global warming from human emissions of CO<sub>2</sub>.
- 1930s Global warming trend since late 19th century reported.
- 1956 Plass calculates that adding CO<sub>2</sub> to the atmosphere will have a significant effect on the radiation balance.
- 1958 Telescope studies show a greenhouse effect raises temperature of the atmosphere of Venus far above boiling point.
- 1963 First meeting of experts concerned with global warming warn that a rise in sea level is likely with “immense flooding” of shorelines.
- 1966 Emiliani’s analysis of deep-sea cores and Broecker’s analysis of ancient corals show that the timing of ice ages was set by small orbital shifts, suggesting that the climate system is sensitive to small changes.
- 1968 Studies suggest a possibility of collapse of Antarctic ice sheets would raise sea levels catastrophically.

- 1971 Conference of leading scientists report a danger of rapid and serious global change caused by humans – organised research effort called for.
- 1976 Deforestation and other ecosystem changes are recognised as major factors in the future of the climate.
- 1977 Scientific opinion tends to converge on global warming, not cooling, as the chief climate risk in the next century.
- 1983 Reports from the US National Academy of Sciences and Environmental Protection Agency spark conflict; greenhouse warming becomes a factor in mainstream politics.
- 1988 News media coverage of global warming leaps upward following record heat and droughts. Toronto conference calls for strict, specific limits on greenhouse gas emissions; UK Prime Minister Thatcher is first major leader to call for action.
- 1989 Fossil-fuel and other US industries form *Global Climate Coalition* to tell politicians and the public that climate science is too uncertain to justify action.
- 1993 Greenland ice cores suggest that great climate changes (at least on a regional scale) can occur in the space of a single decade.
- 2000 *Global Climate Coalition* dissolves as many corporations grapple with the threat of warming but oil lobby convinces US administration to deny problem.
- 2007 Fourth Report of the Intergovernmental Panel on Climate Change (IPCC) warns that serious effects of warming have become evident; cost of reducing emissions would be far less than the damage they will cause.
- 2015 Researchers find collapse of West Antarctic ice sheet is irreversible, will bring metres of sea level rise over future centuries.
- 2018 Damage from impacts – droughts, floods, tropical cyclones, wildfires, decline of wildlife – is seen sooner and at lower CO<sub>2</sub> levels than expected. Mean global temperature is 14.7 Celsius, the warmest in *tens of thousands* of years. Level of CO<sub>2</sub> in the atmosphere is 405 ppm, the highest in *millions* of years.

Australian scientists also discovered that humans had begun to change climate by the 1830s. Their findings, published in the journal *Nature*, relied on natural records of “... climate variation in the world’s oceans and continents, including those ... in corals, ice cores, tree rings and the changing chemistry of stalagmites

in caves.” Changes arrived in the northern hemisphere earlier than in the south with Australia “... not experiencing a clear warming signal until the early 1900s.”

**Now**, in the midst of fires of unprecedented scale and ferocity is the very time to plan rationally and logically for a means of control. It is not as though government is without sound advice. The former *Climate Institute* commissioned a research paper from the CSIRO in 2007 about the link between climate and bushfires. Titled, *Bushfire Weather in South-East Australia: Recent Trends and Projected Climate Change Impacts*, “... it turned out to be prescient.” And, while neither Prime Minister nor leader of the Opposition want to talk about these fires **right now**,<sup>23</sup> when:

- Australians have voted climate change as their **number one problem** (ABC Survey, *Australia Talks*, 2019);
- climate change **science** reveals overwhelmingly that global warming and bushfires are linked;
- we know that waters off Tasmania’s east coast are warming at up to four times faster than the global average;
- we see the Antarctic record a temperature of 18.3C amid rising concern over melting ice sheets to place that region among the fastest warming on the planet;
- we know the fossil fuel industry is threatened by climate change action that will, inevitably, reduce its relevance and income.

What this country does need, **right now**, is informed conversation with people who understand what is occurring and can advise upon the optimum way forward. Australians require unified, long term action with a clear narrative and explanations of the “how” and “why” change in the country will be necessary. In other words, transparency, a plan and measurable outcomes. What Australians **don’t want** is:

- politicians making idiotic and vacuous comments about the reality of climate change in the context of “... the ravings of some pure enlightened and woke capital city greenies.”
- the dubious application of perverse accounting rules claiming “carry-over credits” from the Kyoto Protocol at the 25<sup>th</sup> Conference of the Parties to the United Nations Convention on Climate Change (COP25).
- to be seen twinned with Brazil in undermining efforts on carbon pricing at the COP25.

- to learn from the head of the International Energy Agency that Australia's climate and energy debate is among the worst in the world.

Failure to take action on the complex and interrelated dimensions of climate change ASAP can only result in continued political cowardice being inflicted upon all of us. It is appropriate to resurrect and seriously consider Churchill's 1936 advice to the House of Commons: *"The era of procrastination, of half measures, of soothing and baffling expedience of delays, is coming to its close. In its place we are entering a period of consequences."*

## A Change of Direction

The foregoing has been an attempt to sketch some of the dimensions, tensions and climate change warnings relative to Australia's water difficulties. Hopefully, some of the actions taken to mitigate those difficulties, together with links between the effects of climate change and ever-decreasing rainfall have also been demonstrated. Less rain is an impost on the environment, agriculture, general farming (cattle/sheep), primary and secondary industry and a raft of other activities.<sup>24</sup> There has to be a better way to harvest and distribute water from rivers, floods, seas, groundwater and recycling. My overwhelming belief is that much of what has been done to date has been ad hoc, unintegrated and uncoordinated; we have ended up with a mongrel policy bred of politics, vested interests, competing interests, ineptitude and lack of astute, visionary leadership, the kind of leadership that has the capacity to "*motivate others to achieve group aims.*"

Achieving effective, rational and lasting change requires insight, clear thought, informed knowledge, diverse skills, commitment to the task, funding and courage! It also requires wide consultation, the known results of successful and unsuccessful endeavours in the field of water storage, distribution and use together with local and global input on best practice. Potential problems need to be identified and articulated, both to provide transparency and to ensure the end product does not gloss over or repeat known difficulties. For example, differences between states and their regulation of water usage, charges, limitations on volume acquisition/storage, effective metering, water theft, foreign ownership and other matters.

Such thinking draws me to a paper written for Kevin Rudd by Professor Gary Banks, AO, (2008) founding Chairman of the *Productivity Commission* whose particular fields of expertise include economics, finance, public policy, public leadership and regulation. Banks' paper, titled *Challenges of evidence-based policy-making*, affirms that an evidence-based approach to policy (as adopted by the former *Climate Change Authority* formed in 2012) is not novel, merely little used. He cites Florence Nightingale who rebuked the English Parliament thus:

*"You change your laws so fast and without inquiring after results past or present that it is all experiment, seesaw, doctrinaire; a shuttlecock between battledores."*

In contemplating the robot-debt fiasco and the imbroglio surrounding the National Disability Scheme, Nightingale's words possess a certain piquancy and

relevance. Another area where, too often, follow up is never undertaken or simply withers through lack of action or focus are recommendations from Royal Commissions. A glaring example is the Black Deaths in Custody Royal Commission. Commenced in 1989, producing 339 recommendations, the majority remain unimplemented.

Water is far too precious and scarce for even that kind of neglect to be allowed. As Lynelle Briggs, former Australian Public Service Commissioner, said in her foreword to Banks' paper, *"Ideally, we need systems that are informed by evidence at each stage of policy development, from when an issue is first identified, to the development of the most appropriate response, and subsequent evaluation of its effectiveness. This is even more important when dealing with complex problems, like climate change, when the evidence on which responses must be based is shifting rapidly and involves many different interactive elements."* The underpinning thinking and methodology of the Banks paper is a sound platform upon which to base a new, national, water authority.

## The concept

### A Big Split

A bold and daring initiative would be to split control of all of Australia's water between two parties: The Commonwealth and the States.

This action could be taken using precedent from the Tasmanian Dam Case in which federal powers were used to prevent construction of a hydro-electric dam in south west Tasmania. In that case Section 51(xxix) of the Australian Constitution was used to exercise powers under our international obligations to the World Heritage Convention. A key finding of that case sprang from the lips of Chief Justice Gibbs who, while acknowledging that all of the Constitution was open to interpretation said, "*the external affairs power differs from other powers conferred by section 51 in its capacity for almost unlimited expansion.*" Defining which affairs were of "international character" was a difficult task for the court, a perspective seemingly supported by Justice Mason who considered the external affairs power was specifically intended to be ambiguous because when the Constitution was framed, there were few, if any, international organisations. Justice Murphy was more certain about the elasticity of Section 51 saying "... *in order for a law to have an international character, it is sufficient that it:*

- *Implements an international law or treaty;*
- *Implements a recommendation from the United Nations or a related body, such as the WHO or ILO;*
- *Deals with relationships between bodies (public or private) within Australia and bodies outside; or*
- *Deals with things inside Australia of international concern."*<sup>25</sup>

Prima facie, Murphy's logic embraces environmental matters of international concern and relationships between public and private bodies both inside and outside Australia. In this context, the Federal government could ensure that all primary water sources were handed to a National Water Authority for administration. From that time forward, States would be responsible for maintaining and distributing primary source water through existing infrastructure while also progressing innovation for harnessing and using secondary source waters.

Already I can hear howls of derision for I do not imagine such a split would be welcomed by the Commonwealth, States or powerful, wealthy and influential agriculturalists. The complexity of what might be involved in unravelling the

present fiasco is eloquently reported by Margaret Simmons in the most recent Quarterly Essay through her article, *Cry me a River – the tragedy of the Murray – Darling Basin*.<sup>26</sup> Yet politics, favouritism, patronage and corruption **must** be eliminated from Australia's water management. As observed by Professors David Karoly and Clive Hamilton in 2016, "*... no policy ever has universal support, and bad policy results when national interest is sacrificed to sectional interests.*"

Whilst it would be an expensive task for the Federal government to implement the changes suggested for water management, all aspects of reporting effectiveness, research, improvement, directing, controlling and managing rivers, creeks, streams and artesian waters would pass to a newly created **National Water Authority**. And, like other independent bodies, it would be subject to performance audits by the Auditor General and/or required to appear before the Senate Estimates Committee. – To sit back and allow the current "system" to continue unchanged will, in the long term, be inimical to the Australian way of life.

## Single authority

It has been clear since Governor Phillip's water worries in 1791 that a diversity of bodies, ideas, decisions, actions, departments and people have been involved in the conservation, management and mismanagement of our nation's water. The list below, while not exhaustive, includes:

- The Bradfield Scheme
- A proposal for Australian Dam development
- CSIRO blue prints for new dams and water infrastructure
- The Murray-Darling Basin Scheme
- The National Water Initiative
- The National Water Commission
- The Great Artesian Basin Co-ordinating Committee
- Amendments to the federal Environment Protection Act protecting environmental water against coal mining
- The Federal Department of Agriculture
- Laws, rules and regulations imposed by all State and Territory governments
- Productivity Commission

As reported in this paper, dissension between competing interests over water has variously been toxic, deceitful and harmful to people, business and the environment. As water scarcity increases, there is, as the UN and others have found, a potential for violent conflict, though researchers emphasise it is rarely the *lack* of water as such that fuels conflict, rather its governance and management. <sup>27</sup>

As already indicated, I believe opposition to the creation of a new water universe would be strident. Building the concept, establishing the rules, negotiating state concerns, being inclusive of primary, secondary or tertiary industries is bound to be as difficult as creating the Australian constitution - but not impossible. Goodwill, common political and consumer purpose, long term vision, strategic thinking and money can accomplish almost anything. A single water entity does not mean that COAG meetings would cease to have input, or that relevant federal/state Ministers and local MPs should stop raising questions, but deliberation and decision making in the national interest would fall to the new body free of political influence and/or commercial patronage.

And make no mistake, dark clouds are forming. There will be others like Websters, Shandong Ruyi, China Mengnui and Macquarie in pursuit of a new

vision to “... harvest farming assets (by bringing) a new source of capital into the sector,” because in terms of “... world ... risk-weighted returns and ... opportunity assessment, Australia fares very favourably.” In spite of Maquarie’s positive pitch about revitalised rural communities, reduced CO<sub>2</sub> emissions, improved soil health, more sustainable farming practices and reduced water use, their underpinning strategy remains investment of large-scale capital to build an “investable asset class.” That is a cocktail of power and influence for profit that will nurture conditions for commercial patronage in search of favourable water deals.

Therefore, the process I advocate for fairness, harmony, balance and absolute transparency is an independent statutory authority removed from politics. Indicative responsibilities of such an Authority might include:

- (a) Chairmanship under people of the calibre of a retired judge or Professor Allan Fels AO, Rod Sims, Professor Gary Banks AO or Professor Ross Garnaut AC.
- (b) reporting mechanisms similar to the Reserve Bank, Australian Taxation Office, Australian Competition and Consumer Commission, Australian Securities and Investment Commission or Productivity Commission.
- (c) being sole governor of **all** rivers, streams, creeks, wetlands and artesian waters in Australia including organising, funding and arranging for any and all maintenance upon storage structures, existing or new, rivers, streams or creeks.
- (d) assessing the viability, integration, cohesion and use of water in all *current* schemes/programs/grants for equality, distributive fairness, transparency and balance.
- (e) altering and/or reallocating water where investigation reveals unfairness, theft of water, failure to effectively or correctly meter water extraction, commercial exploitation or similar acts of impropriety.
- (f) ensuring environmental water volumes are properly/scientifically determined and allocated for all species of flora and fauna.

- (g) ensuring the *total volume of water* owned by foreign interests never exceeds five per cent of the water available *or*, a percentage set after exhaustive study by the Authority
- (h) regular meetings with water users to identify flaws, inefficiencies, improvements, new ideas, policy or practice changes.
- (i) developing effective communication methods to inform water users, in advance, of changes to policy, practise, or water volumes likely to affect production or related activities and the reasons for change.
- (j) devising new laws, rules or regulations or amending State laws where appropriate to effect uniformity between states regarding water usage.
- (k) Embracing any or all of the changes identified in the Report known as *National Water Reform* and submitted to government on December 19, 2017 as part of the National Water Initiative.
- (k) establishing a uniform and realistic scale of water fees for all forms of industry engaged in mining, said fees to be returned to the States in which they are raised.
- (l) In pursuit of best practice and continuous improvement for matters related to water management, having unfettered access to professional expertise from any individual, authority, body or Department at federal, state or local government levels.
- (m) When required, liaising with, or having access to federal and/or state authorities to assist/support with emergencies involving flood, fire or drought.
- (n) Providing Annual Reports to Federal, State and Territory governments and communities encompassing:
  - Budget.
  - Research.
  - New or discontinued projects
  - Annual water volume actually distributed by State for any form of agriculture, general farming, or industry.
  - Annual water volume actually distributed to the environment

- Water re-allocations by State, by volume by reason.
  - Impediments to Authority functionality.
  - Collaborative partnerships or interaction under Section (m):
    1. *Who*: organisation/individual
    2. *What*: nature of project
    3. *How*: duration/method of project
    4. *Why*: reason for and benefit of project
    5. *Outcome*.
  - Changes in weather patterns affecting streamflow, water catchment holdings or groundwater recharge.
  - Action in conjunction with other organisations regarding flood mitigation or fire prevention as a consequence of drought including additional water storage.
  - Enforcement of offences, prosecutions and penalties.
  - Compatibility and progress with government departments, Federal or State, on matters relevant to climate change and water conservation.
  - Incentives paid to whistle-blowers.
  - Other relevant matters.
- (o) Formulating a schedule of offences and penalties for organisations, companies, businesses and individuals regarding breaches of rules or regulations established under the auspice of the National Water Authority.

## Water ownership

Television programs, newspapers, periodicals and even this paper has shown that both foreign owned capital and big Australian business with unlimited funds punishes local smaller scale irrigators and farmers in two respects: placing the price of water beyond reach and denying/diminishing income.

David Littleproud, as Minister for Water Resources, said he did not think the ten percent of foreign owned water resources was particularly problematic. Perhaps it is not, but the depth of foreign pockets is, and people in small river communities, as well as other parts, *perceive* a problem. Foreign interests need to be capped as does the purchasing power of local businessmen who have become water barons and whose aim is to profit from water sales. Again, whether right or wrong, that is a perception alive and well and Australians, *mostly the quiet ones*, are hurting.

It would be the role of a *National Water Authority* to run a wire brush over these matters to ensure fairness, prevent profiteering and guarantee local, smaller farmers fair water entitlements for their needs. Even though the present federal government does not formally recognise climate change, it *is* happening, and that means big variations in rainfall, including longer, more fiery droughts and less water or even, as Gergis suggests, that while “paleoclimate, observational and modelling studies have historically held true, relationships may be starting to break down ... in ways ... that future generations of scientists may one day identify as the point of no return.”<sup>28</sup> We cannot, under these circumstances, allow water barons or foreign ownership to negatively affect the availability of water to Australians. To that end, I suggest a five percent cap on foreign ownership and consider it a function of the NWA to examine, in detail, the phenomenon of water barons and the entire system of water trading to effect any necessary change. If the NWA determines that foreign water ownership is not harmful to Australian interests, then it should, at minimum, consider a cap to be reviewed every five years.

Should a review of overseas water ownership conclude that anything above five percent is inimical to Australia’s interests, then a timeframe should be set to bring it to an end. For instance, providing a five-or-ten- year warning of intent, water buyback and redistribution should occur with the fallout of commercial consequences negotiated by the federal government.

Finally, China. With both its overt and covert intentions, China has the power, influence and wealth to render Australia little more than a food bowl for its own

needs while rendering ourselves second rate. The Chinese are, as Duncan Lewis has said, “trying to place themselves in a position of advantage.” Understandably, farmers willingly sell their land to China for good prices; in most cases that land has a water right. It is conceivable that by patient buying, the “Weilong” situation could become the norm. Peter Hartcher’s sober warning from Anson Chan is pertinent: “... *No one should be under any illusions about the objective of the Communist Party leadership – it’s long term, systematic infiltration of social organisations, media, and government. By the time China’s infiltration of Australia is readily apparent, it will be too late.*”<sup>29</sup>

## **The Talent**

In the event of a National Water Authority being created, what skills should be available to forge purpose, direction and process? As mentioned, three factors tied to climate change and now under intense pressure involve the economy, society generally and ecology – Australia’s flora and fauna.

**Economy** Experts in these fields should be sought from diverse areas of the economy: agriculture, beef/lamb and other meat industries, fruits, wine, grain, vegetables, engineering, hydrology, construction, forestry, trade, Bureau of Meteorology and myriad others who all, in their different ways contribute to local, national and international employment and wealth. Such trades, businesses, primary industries and individuals who need water to achieve results have the requisite skills and knowledge to contribute to the creation of the NWA. Such people might include Gail Kelly, Felicity Duffy, Ali Ameer, Andrew Leigh, Julie Bishop, John Daley or John Hewson.

**Social** Because water availability is prone to feast or famine (floods/drought), various experts are required to build a national approach to both. For instance, the current drought underpins the holocaust that consumed vast tracts of forest, farms, small and medium communities and native flora and fauna. We can do better. We need input from people like Hugh McKay, AO, psychologist, sociologist and social researcher, Gillian Triggs, organisations like *Beyond Blue* and respected others. In the main, our politicians have failed to listen, to plan, to equip in spite of years of warning. The fires have been extinguished by the superhuman efforts of valiant firefighters but not because fuel has become exhausted. Rebuilding is complex, will involve many people and take years and introduce much change. The “recovery” phase of the recent fires will be protracted and quite possibly inadequate because of sheer scale; insurance payouts will be stretched like

never before; forests, soils and **water** will take years to recover and inevitably exceed the damage created by Victoria's 1939 bushfires; fire victims will need months and in some cases, years of financial, moral and health support as do those afflicted by years of savage drought. For farmers ravaged by drought, their plight has the potential to lose prominence because of the scale and visual impact of the fires which has stimulated enormous generosity from so many people inside and outside Australia for victims and fire fighters. *Balance has to be struck.* Damage, devastation and social harm from floods is no less calamitous to people, homes, towns, assets, business, property and community and individual wellbeing.

A National Water Authority must **never** become just another governmental silo. There must be frequent and regular interaction with other instrumentalities involved in the human side of tragedy caused by drought, fire and flood. The NWA must link closely with the BOM, Centrelink, the Australian Defence Forces, federal, state and municipal emergency authorities to ensure their part in disasters involving flood, fire or drought is cohesive and fully integrated.

**Ecology** Ours is unique to this country and recognised as such by many, including the federal Environment Protection and Energy Department. Koalas, right now, have become endangered and while the numbers of their deaths from the fires is unknown, intense pressure will be added to their survival prospects. Recent changes agreed between federal and state governments has meant a more uniform method for assessing endangered plants and animals which is helpful. Even so, the *Australian Conservation Foundation* claims there are 2000 flora and fauna species on the threatened list and more is required for their protection. The ecology would naturally form part of the work of the NWA if consideration is given to flood remediation or capture, or to methods of bushfire prevention and/or water protection. Indigenous leaders have unique skills and knowledge of these matters, especially fire, and people such as Bruce Pascoe, Peta Marie Standley, Victor Steffenson and others such as Professor David Bowman of Tasmania, a fire ecologist, Dr John Sherwood, environmental scientist, ecologist Professor Chris Dickman, archaeologist Professor Ian McNiven, geologist Jim Bowler and Professor David Lindenmayer AO would be valuable resources.

In short, there is piercing need for high calibre **economists** who might come from Treasury, universities, business and other relevant sectors. The **social sphere**, requires practitioners with broad life experience; indigenous people, members of the Country Women's Association and similar support

organisations, social assistance and organised farming bodies, government institutions and respected others. The **ecological area** is diverse, highly specialised and no less important than the other two strands and demands well credentialled and regarded contributors.

## Supportive Legislation

### A National Integrity Commission <sup>30</sup>

Good luck with that! Probably an instant and common response. Attempts to create a National Integrity Commission (NIC) have not been fruitful, despite calls going back at least thirty years, according to *The Australian*. A 2011 Joint Committee on the *Australian Commission for Law Enforcement Integrity* recommended a “generalist, dedicated anti-corruption body” after noting “there could be a lot of ‘undisturbed rocks’ that need to be overturned if the public is to be fully assured that integrity in the public sector is being properly maintained and safeguarded.” A Parliamentary Integrity Commissioner promised by Julia Gillard in 2010 never appeared and in 2012 Gillard said there was “no convincing case for the establishment of a single overarching integrity commission.” The recent “sports rorts” involving MP Bridget McKenzie and the Prime Minister’s Office is wreathed in the stench of malpractice no matter what prominent people say. It is the archetypal event screaming for investigation by an Integrity Commission.

In 2017 several prominent former judges asserted “... serious corruption almost certainly exists in federal politics. It is already well known that there is abundant corruption in other capital cities around Australia, why on earth does the air suddenly clear around Queanbeyan?” The judges perceived an authority as an “... umbrella-style body that would have its spokes protruding over and above the AFP, over and above the Parliamentary Expenses Authority, over and above the AEC and over and above the public service.” It is unclear whether politicians were included beneath that umbrella in the same way as the New South Wales ICAC or if, as in Victoria’s Independent Broad-based Anti-Corruption Commission, it excludes politicians.

As Appleby points out, the Western Australian and Queensland Royal Commissions probing government corruption in the 1990s and 1980s led to standing anti-corruption commissions in both states. The recent Banking Royal Commission which revealed grand scale malpractice was voted down by the Prime Minister, no less than twenty-six times. Lamentably, instruments as powerful as Royal Commissions are generated by government and then, as witnessed by the Banking Royal Commission, only with extreme reluctance. A standing authority with the powers of a Royal Commission able to instigate its own inquiries and cast a wide net is a boost to democracy and vote for transparency and accountability. This country demands all three qualities.

According to *Transparency International*, from a corruption index of 180 countries where 0 means most corrupt and 100 least corrupt, Australia has fallen six places from 7<sup>th</sup>. position in 1995 to remain at 13 in 2018. Mindful that “... a majority of Australians supported a national corruption watchdog,” according to the ABC’s 2016 Vote Compass program, there is all the more reason to invest time, effort and dollars in developing the best NIC possible. Balance and safeguards will be necessary but discovering **truth is essential**. Australia does not want a watchdog designed to fail. Politicians *must* be included beneath the judge’s umbrella.

Why a NIC in regard to water? Because water is too precious not to be honestly, effectively and fearlessly managed. The Darling River fish kill reeks of mismanagement. Theft of water was clearly revealed by the earlier mentioned ABC Four Corners program. The power, influence and wealth of “big business” to squeeze out smaller enterprises has to be prevented. Unfair practices by mining companies where farm water is interfered with must be disallowed. These are all reasons for a National Water Authority to have access to a powerful, well-funded Integrity Commission. If people have the resolve to report wrong conduct about misuse of water, they need to know their complaints will be fearlessly investigated with no possibility of retaliation by those complained of.

### **Whistle-blowers** <sup>31</sup>

Again, a natural question, why whistle-blower protection? Because with water, the stakes are high. Some Australian farming organisations are backed by billions of dollars and water barons do not want profits from their lucrative markets interfered with. Those reporting any form of corruption connected to water supplies/entitlements will need certainty of protection against recrimination/retribution from rich and powerful influences, including government. The actions of the Howard government in East Timor and Edward Snowden in the USA confirm beyond doubt that ordinary citizens in this country have no idea what networks and relationships exist between which people and what benefits accrue from those relationships. <sup>32</sup>

Commonwealth and state governments have legislation to protect “whistle-blowers,” people of principle who report malfeasance within their work place, a government or local government agency, institution (banks) or business. The wrongdoing may be civil or criminal, result in an investigation and may draw some form of punishment for transgressors. But punishment is double edged.

Whistle-blowers are frequently isolated, vilified, dismissed from employment, demoted, harassed, stalked, assaulted, slandered verbally or electronically and exposed to diverse forms of bullying. Such behaviour occurs in government departments and private enterprise when courageous, ethical people have reported wrongdoing.

Egregious behaviour by employers and governments can result in prosecution and imprisonment. For some who report, suicide results. For many, extreme mental and emotional anguish or a decline in physical health is their long-lasting reward for right conduct – blowing the whistle on criminality or corruption.

While Australian whistle-blower legislation has fairly comprehensive rules for the public sector, they are not without shortcomings. Among those shortcomings are:

- “The reportable wrongdoing is ill-defined and differs between jurisdictions.
- Anonymous complaints are not always protected.
- It is not clear who will be protected and how.
- The obligations between agencies themselves is unclear and differs.
- The absence of an oversight agency responsible for whistle-blower protection.”

A further downside is that rules for the Australian private sector are considerably weaker.

Countries vary in the way whistle blowers are treated and some differences appear below.

### **The USA** <sup>33</sup>

The Securities and Exchange Commission (an independent government body) appears to act as central coordinator for whistle-blower complaints involving breaches of federal securities laws as well as, *inter alia*, proposing federal securities rules. As part of its mandate, **financial incentives** are offered to anyone who provides information resulting in sanctions of more than \$1M. The first such payout was more than \$50,000 to an individual. The incentives have proven valuable and two years after they began, payouts of up to \$150,000 have occurred. Thus far, more than \$14M has been paid to whistle-blowers.

The SEC protects whistle-blowers against retaliation by imposing **criminal penalties** upon employers of public or private companies who harass or fire

employees. Companies attempting to circumvent the legislation by compelling employees to sign “secrecy agreements” have been taken to court and the SEC’s “whistle-blower chief” has forbidden such conduct and actively pursues companies and lawyers who draft the agreements.

Over time, protocols for whistle-blower best practice have evolved via the SEC, including education and training for employees and complaint auditing and monitoring by companies to ensure their protocols are professional, effective and current.

### **British Columbia**

In a review of best practice for whistle-blowing legislation in British Columbia, it was found that laws, regulations and procedures protecting those in the public sector reporting wrongdoing (*Public Interest Disclosure Act et. al.*) were relatively comprehensive. However, provisions for private sector employees (public sector employees *not* in a provincial ministry, government body or office) were inadequate. Although PIDA protections have been expanded, elements such as interference with freedom of information requests, transparency concerning decisions made about investigations of disclosures of wrongdoing, complaints of reprisal against whistle-blowers, government accountability among agencies protecting whistle-blowers still required strengthening.

Some of the best practice principles included:

- Laws to protect against a variety of reprisals, e.g., dismissal, probation, punitive transfers, harassment, reduced duties or hours, withholding promotion or training, loss of benefits or status and threats of such actions (*Transparency International, 2013, p. 5*)
- Protection against overt forms of reprisal – termination – and covert actions, e.g., being ostracised.
- Extending the same protection to those who refuse to engage in wrongdoing as those who report it.
- Providing the option for whistle-blowers to report wrongdoing either confidentially or anonymously.
- Shifting the burden of proof to employers to show there is no relationship between disclosure of a bona fide complaint and any reprisal against the person making the complaint.
- Protection of people who knowingly make false complaints is prohibited.

- Whistle-blowers who provide good faith disclosures should be immune from civil and criminal responsibility for information revealed in disclosures, complaints of reprisal, and investigations of both.

Finally, a comprehensive review of this topic has been penned by Paul Latimer and Professor A. J. Brown from which more comprehensive legislation could be drafted in Australia given the political will to do so. It is in the interests of fully transparent governance and strong, trusted political leadership to protect people of principle who report wrongdoing.

## Conclusion

The bushfires of 2019 – 2020 have shown the world Australia is at the spear tip of climate change. Years of bitter politicking here have resulted in a holocaust combusted by drought, denial and inaction. Too often the reason given for doing nothing about climate change has been the impact on jobs, the economy and the value of coal to gross domestic product. Yet the world is facing a transition as significant as movement from cottage industry to industrial revolution, from horse and buggy to internal combustion engines, from carrier pigeon to global electronic communication. Coal exports have been good to Australia but, in world terms, they are now toxic. New jobs from hydrogen energy, fuel from algae, power from solar, wind, thermal and tides are awaiting development; a concentration on value-adding to raw products instead of abject reliance on mass export of iron ore and other precious metals lies largely dormant; there is potential in revitalising Australian manufacturing; brilliant new careers lie ahead for advancements in space, technology, medicine and other forms of science.

All these fields potentially herald not just continuation but improvement to our national wealth. After all, that was the rationale behind the Karpin Report <sup>34</sup> of 1995, to prepare managers for work and leadership, to build understanding and respect for enterprise culture, to nourish small business in a world of increasing globalisation, to formally and properly embed principles of diversity, to instil within the workplace (whatever it might be) a respect and thirst for life-long learning and to build a nationwide belief in best practice principles. With the right leadership, funding, vision and strategic thinking, this *can* occur.

Reluctantly, I feel I must include mention of the Corona Virus. It has nothing at all to do with a National Water Authority but everything to do with Australia's preparedness in times of crisis and disaster, central themes of this Royal Commission. This virus is merely another tile in a long pattern of under preparedness: drought, flood, fire, overseas business losses, increasing foreign ownership of prime agricultural land and water and political influence from foreign donors.

Questionable federal policies have resulted in massive cuts to the CSIRO, one of our premier science organisations responsible for ground breaking research that protects millions of people from deadly diseases around the world. The culling of scores of jobs there has seriously depleted Australia's capacity to contribute to our Paris climate change commitments which, potentially, could negatively

affect recommendations of your Commission. Merging Centrelink with Medicare has been an unmitigated disaster in the context of providing rapid, effective service to the people. It doesn't. Currently, attempts to meet the needs of thousands of scared, bewildered people thrown out of work because of Covid 19 has revealed a powerful need to rethink just what matters to the electorate. It is not government economy at all cost but *responsive human service*. That will not come from the multi millions of dollars spent on consultancies like KPMG, Deloitte, Price Waterhouse and others, rather it should come from a stable, well trained, professional, innovative and loyal public service. Decades of downsizing our public service in lieu of consultancies have revealed yet another gap in capability and preparedness at a time of need.

Having been a copper, I am familiar with the callout process of Defence aid to the civil community. In my experience, *nothing* prevents initiation of that aid by a phone call from the Prime Minister to a State Premier. In disasters, rapid action could be initiated this way while protocols follow. In the recent bushfires calling in the ADF, an excellent decision, was too slow. Having been a student of the Industrial Mobilisation Course (now Defence Industry Study Course) I understand how the IMC aimed to broaden understanding of links between industry, science, technology, capacity, capability and defence preparedness. That kind of knowledge/experience somehow needs to be greatly expanded. Defence is not confined to warfare; defence applies to all crises in their diverse forms, including Covid 19.

This paper is as much about leadership - bold, creative, courageous leadership forging common purpose for the future - as it is about water. A *National Water Authority* is part of a long view, not one of short termism. It is about nationhood and equality, about listening to the electorate, providing honest, transparent democracy and full-scale accountability. It is also about confirming the hope of Sir Henry Parkes' 1889 aspirations and, most definitely, drawing attention to a need for national preparedness.

## *All Clear*

*Nobody put their hand out,  
Nobody took a bribe,  
Nobody was compromised  
By acts you could describe.*

*Nobody got away with it,  
Nobody thought they could,  
And all of them were honest men.  
And all of them were good.*

*Nobody bought a silver gift  
To please somebody's wife,  
Nobody did a single thing  
To poison public life.*

*Nobody bought a cabinet,  
Whatever you may hear,  
And all of them were honest men  
And all were in the clear.*

*Nobody did a secret deal,  
Nobody was for sale,  
Nobody bent the rules at all  
And nobody went to jail.*

*And all of them were honest men,  
As white as driven snow,  
And all lived on a higher plane  
And shat on those below.*

*Roger Woddis  
May 1917 - July 1993*

## End Notes

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<sup>1</sup> For comments about Watkin Tench and David Collins see, **GERGIS**, Joelle, *Sunburnt Country*, Melbourne University Press Publishing Limited, 2018, pp 19 – 20. For Goyder's Line see, *Wikipedia*, Goyder's Line and **GERGIS**, J., op. cit. p. 86. For information about indigenous people growing native grain see, **PASCOE**, Bruce, *Dark Emu*, Magabala Books Aboriginal Corporation, Broome, 2018, p. 28 showing Norman Tindale's 1974 map of the Aboriginal grain belt. For a discussion of Rangelands see, **Australian Government, Department of Environment and Energy**, *Outback Australia – the rangelands*, Environmental Resources Information Network, November, 2005; for insight to Australian droughts see, **PRESTON**, The Honourable Justice Brian J., *Water and Ecologically Sustainable Water in The Courts*, MqJICEL (2009), Vol 6. The author is the Chief Judge of the Land and Environment Court of New South Wales whose article is based on a paper presented to the University of South Australia's 'Australian Sustainability Laws and Water Management: The Future Symposium,' held in Adelaide on October 17, 2008. For the timing of various infamous droughts see, <https://theconversation.com/recent-australian-droughts-may-be-the-worst-in-800-years-94292> in which reference is made to the Settlement drought (1790 – 93), Sturt's drought (1809 – 30), Goyder's drought (1861 – 66), Federation drought (1895 – 1903), World War 2 drought (1939 – 45) and the Millennium drought (1997 – 2009). See also: **Year Book Australia, 1988**, 1301.0, containing a comprehensive account of drought and references canvassing drought review, natural disasters, drought monitoring, rainfall deciles, *Drought Workshop* and climate system monitoring. See also: **Herald Sun Drought worst in 1000 years**, story by Gerard McManus, 8 November, 2006.

<sup>2</sup> **CARBONE**, Delana and **HANSON** Jenna, *Australian Geographic*, March 8, 2012; for information about Australia's worst floods see: [australiangeographic.com.au/topics/history-culture/floods-10-of-the-deadliest-in-australian-history](http://australiangeographic.com.au/topics/history-culture/floods-10-of-the-deadliest-in-australian-history) To this day, the deadliest of all floods remains that of June 1852 at Gundagai, NSW when the Murrumbidgee River swept away all but three houses in the town killing eighty-nine people (one third of the population) subsequently causing the town to be rebuilt on higher ground. Other deadly floods have occurred in: Ipswich, Qld., February 1893; Clermont and Peak Downs, Qld., December 1916; Melbourne, Vic.; November 1934; Brisbane/Cairns, Qld., February 1927; Northern Tasmania, April 1929; Hunter Valley, NSW, February 1955; Brisbane, Qld., January 1974; Hawkesbury and Georges River, NSW, August 1986 and Brisbane, Qld., December 2010. See also: **GERGIS**, J., op.cit., pp. 109 – 112. The 1974 flood provided "abundant vegetation in Central Australia but when it dried ... it provided rich fuel for fires which ... blazed across the region." Other consequences from the flood included insured losses estimated to be around \$3.3 billion, a major outbreak of Murray Valley encephalitis and 400 – 500 cases of Ross River fever.

<sup>3</sup> *Wikipedia*, Bradfield Scheme; [https://en.wikipedia.org/wiki/Bradfield\\_Scheme](https://en.wikipedia.org/wiki/Bradfield_Scheme); For comment from politicians about the Bradfield scheme see: <https://www.abc.net.au/news/2019-04-24/fact-check-bradfield-scheme-barnaby-joyce-drought/11029284>. Supporters include Bob Katter, former Nationals member Peter Beattie, former Queensland Premier and Pauline Hanson. For comment about the NSW Nationals offer of \$25M for a modern Bradfield Scheme see: **The Australian**, story by Ean Higgins, National Rural Reporter, August, 19, 2019. Note too, the NFF considers the CSIRO's ideas more attainable than the Bradfield Scheme; they match forecasts of the effects of global warming and there is trust in the independence and integrity of the body which conducted the study. For an alternative to Bradfield see: **MADJERIC**, Lou, *Proposal for Australian Dam Development*, Submission 285, 8 April, 2014 (revised 20 May, 2014) <https://www.aph.gov.au/DocumentStore> For information about hydraulic engineering see: **WIKIPEDIA**, *Hydraulic Engineering*, note China and Persia and the Roman Empire have practised

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these skills for centuries. For information about China's dams see: **BBC Future**, 16/10/2015 <https://www.bbc.com>future>. For China's Mekong River dams costing locals their livelihoods see: **ABC News**, story by Amy Bainbridge and Supattra Vimonsuk, 20 January, 2020.

<sup>4</sup> These include towns in southern Queensland and northern and western NSW, e.g., Murrindindi, Menindee, Warwick, Stanthorpe, Tenterfield, Armidale, Tamworth, Nyngan, Cobar, Narromine and Orange. For problems with banks see: **Sydney Morning Herald**, *Unexpected consequences for banks too: Shareholders striking against lucrative executive pay*, 9/11/2016; **The Age**, *Bank denies lending irresponsible*, 20/02/2016; **The Age**, *Big four banks destroy paper land titles forcing property owners to use a bank-owned electronic transaction system*, 2/11/2016; **The Weekend Australian**, *Banks owe a duty of care to investors*, 12 – 13/03/2016; **The Age**, *Ethically bankrupt?* 8/03/2016; **The Weekend Australian**, *APRA won't 'name and shame' banks*, 21 – 22/ 03/2015; **The Age**, *Banks vow to thwart fresh scandal*, 10/10/201; **The Age**, *Bank loses 'appetite' and client driven to ruin*, 30/05/2018; **The Age**, *Minister lambasts CBA fee 'gouge'*, 24/05/2018; **The Age**, *Mums and Dads tell of livelihoods and lives shattered by banking decisions*, 26/05/2018; <https://theconversation.com/royal-commission-shows-bank-lenders-don't-get-farming-and-rural-economies-pay-the-price-99086> July 2, 2018; **ABC NEWS, RURAL** - *When is a bank harsh or fair on farmers?* Senator John Williams sifts through the evidence, transcription, 25/02/2016.

<sup>5</sup> **CONCA**, Ken, *Decoupling Water and Violent Conflict*, ISSUES, Vol. XXIX, No. 1, Fall, 2012. For Murray – Darling Basin problems see: **ABC NEWS**, *Murray-Darling Basin Plan in danger of collapse, authority boss says*, story by Dominique Schwarz, 8 February, 2018; and **ABC NEWS**, *Senate rejects, Murray-Darling Basin changes as Labor backs Greens, NSW Government prepares to withdraw*, story by Brett Worthington and Caitlyn Gribbin, 14 February, 2018. For instances of corruption see: **ABC NEWS**, *Murray-Darling Basin Plan has failings in governance, timelines, and budgeting, Productivity Commission*, story by Clint Jasper, 30 August, 2018; and **ABC NEWS**, *The cotton grower, the water minister, the pumping ban and the broken meter*, story by Anna Henderson, 14 February, 2019. Ultimately the cotton grower, Mr Anthony Barlow, pleaded guilty to charges of improper pumping and Kevin Humphries, Water Minister, was dumped from Cabinet in a post-election re-shuffle; and **ABC NEWS**, <https://www.abc.net.au/news/2019-01-31/murray-darling-basin-plan-ignored-potentially-catastrophic-risks/10766106> and **The Guardian**, *Murray-Darling Basin Royal Commission Report finds gross maladministration*, 31/01/2019. This article also covers obfuscation by the federal government during Commission hearings. For water conflict in Delhi, **ABC NEWS**, *Delhi is facing a water crisis. Ahead of day zero, the city's residents have turned to the mafia and murder*, story by James Oaten and Som Patidar, 8 February, 2020.

<sup>6</sup> A water entitlement:

- Is a right to an ongoing share of water within a system. Rights can be bought and sold by irrigators, companies or investors.
- No longer has to be attached to a parcel of land, but is often sold in conjunction with properties especially containing permanent crops like citrus, grapes or nuts.
- Has a financial value determined by the water market (which operates like any other free market) and is subject to change.
- Allocation to its owner, and how much the owner will receive each season depends on rainfall, inflows into storages and how much water is already stored.
- Allocation can increase throughout the year in response to changes in the system.

See: **ABC NEWS, RURAL**– *Foreign ownership of water entitlements reveals China and US are the biggest investors*, transcript posted 25/03/2019.

<sup>7</sup> For examples of environmental corruption, concealment and profit see: **ABC NEWS**, *Adani spent a year trying to hide this information on its reef spill*, story by Michael Slezak, 10 August, 2018. The

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item concerns reef pollution after a rainstorm when the Queensland government was informed of the probability that wetlands at Abbot Point would be polluted with coal laden water in breach of licence conditions. The pollution was likely to be **900%** more than allowed under the licence and therefore a breach of law. A temporary licence to pollute was sought and when it was realised the level of pollution would be greater than anticipated, an amendment was sought and granted by the Queensland Environment Department. Thereafter, Adani fought hard against release of the information under FOI; and, **The Age**, *Climate of change as Pruitt quits*, story by Evan Halper, 7 July, 2018. Chief of the US Environment Protection Agency, Scott Pruitt, was forced to leave the Agency after his corruption and cosiness with industry lobbyists caught up with him although not before he had dismantled clean water and air rules, weakened the EPA's authority and rolled back Obama's climate action loathed by fossil fuel companies; for *transparency* in the management of water, the UN considers there is an obligation upon states to *respect, protect and fulfil water rights*, which implies an imperative for Australia to consider water in the context of a **national**, sustainable development policy. Development of **any** programs designed to harvest and allocate water should have clear "... policy dimensions, time frames and analytical tools, governance aspects – institutions, stakeholders, local links – and processes for improving them, i.e, indicators, targets, and monitoring" together with regular and transparent reporting. See: *Good Practices in the National Sustainable Development Strategies of OECD Countries*, OECD 2006, pp. 7 – 8, Summary. Contrast this philosophy with information provided to the **ABC Four Corners Program** on 8 July, 2019: "Former government officials ... revealed to Four Corners that no-one in government monitors whether the work paid for by the water infrastructure scheme delivers on its promised savings. Farmers say that to get a grant, they give the Federal Government an estimate of how much water their proposed new infrastructure will save, but that figure is never checked or monitored, even after millions of dollars in Commonwealth funds are handed over." **ABC NEWS**, *'People have to be named:' Scientists say broken Murray-Darling system can be fixed*, story by Nick Kilvert, 1 February, 2019; a report on findings of the South Australian Royal Commission into the Murray-Darling Basin Scheme. For increased water trade during 2017 -2018 worth \$2.4B, see <http://www.bom.gov.au/water/waterinaustralia/>

<sup>8</sup> **Australian Government National Water Commission**, *Water Markets in Australia, A Short History* <https://apo.org.au/sites/default/files/resource-files/2011/12/apo-nid27438-1224671.pdf> For a change to these policies see: **HOWARD**, John, *John Howard Lazarus Rising*, Harper Collins Publishing, Sydney, NSW, 2010, p. 653. Howard reports that Deputy Prime Minister, John Anderson patiently wooed the States one on one and at a COAG meeting on 29/08/03 reached agreement "... for a national water policy which involved acceptance of an important principle: water entitlements should be invested with the characteristics of property rights. They should become tradable, even across state borders." The deal was to be known as the **National Water Initiative**. For comment on "environmental water" and impact on water storage, *ibid.* p. ix; for comment on market place effectiveness, *ibid.* p. x and for comment on possible emergence of "water barons," *ibid.* p. xi.

<sup>9</sup> For information about the Foreign Investment Review Board see generally, **Foreign Investment in Australia – A Brief History and Recent Developments**, <https://treasury.gov.au/publication/economic-roundup-spring-1999/foreign-investment-in-australia-a-brief-history-and-recent-developments> ; for information about FIRB transparency, **Foreign Investment Review Board and Transparency**, [https://www.aph.gov.au/Parliamentary Business/Committees/Senate/Rural and Regional Affairs and Transport/Completed inquiries/2012-13/firb/report/c04](https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Rural_and_Regional_Affairs_and_Transport/Completed_inquiries/2012-13/firb/report/c04) p.59; for merger of Lempriere P/L and Shandong Ruyi, *ibid.*, p.59; for criticisms of FIRB by the Senate Estimates Committee, *ibid.*, pp. 62 – 63; for merger of Macquarie Agriculture and Shandong Ruyi see **Press Release** 2 August, 2019 [cubbie.com.au/wp-content/uploads/2019/08Cubbie-press](http://cubbie.com.au/wp-content/uploads/2019/08Cubbie-press) ; for flood waters captured by Cubbie Station during February 2020 **Herald and Weekly Times**, *Cubbie's Water Grab*, story by Peter Hunt, March 4, 2020;

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for water at Menindee, **Herald and Weekly Times**, *Water hits Menindee*, story by Peter Hunt, March 18, 2020; for transparency of New Zealand's foreign investment, **Report – Foreign Investment Review Framework**, Commonwealth of Australia, 8 April 2016, Chapter 2, p.10.

<sup>10</sup> **ABC NEWS RURAL**, *Foreign ownership of water entitlements reveals China and US are the biggest investors*, story by Jessica Schremmer and Nadia Isa, 25 March, 2019. For local farmers combatting the power of unlimited finance, **ABC NEWS**, *Chinese company to buy Dairy Farmers and other dairy icons for \$600 million*, 25 November, 2019. Chinese interests have offered \$1.5 billion for the organic infant formula maker Bellamy's. "China Mengnui Dairy will pay Japanese beverage giant Kirin \$600 million to take over its Lion Dairy & Drinks portfolio." Lion includes Dairy Farmers, Masters and Pura Milk, Dare and Farmers Union iced coffee, Big M, Pura Classic flavoured milk, Vitasoy milk and coconut milk, Juice brands Daily Juice, The Juice Brothers and Berri and Yoplait yoghurt under licence. The full effect of China's ownership of Australian land, water, primary, secondary and business activities has yet to be gauged but, there is an implicit threat and vulnerability in constantly yielding Australian assets to this foreign power. Contrary to Minister Littleproud's opinion, **we should be alarmed** by the tactical, strategic and political advantage afforded China by its continuous encroachment upon Australian soil and its rapacious appetite for Australian assets. Now, during the Covid 19 pandemic, **The Age**, reports *Alert over foreign swoop on assets*, story by Samantha Hutchinson and Anthony Galloway, 27 March, 2020, indicating the FIRB is "... bracing for attempts by foreign companies to take over distressed Australian businesses and assets amid the pandemic." Some Liberal MPs have called on FIRB to revisit foreign acquisitions. "The current thresholds for referral to the board include \$15M for agricultural land and \$60M for agribusiness." Fortunately, the Treasurer has acted swiftly, **The Age**, *Tough rules for foreign buyers*, story by David Crowe, 30 March, 2020.

<sup>11</sup> **ABC NEWS**, *How taxpayers are funding a huge corporate expansion in the Murray-Darling Basin*, Four Corners, Monday 8 July, 2019. See too: **ABC NEWS**, *Declaration urges fundamental changes to Murray-Darling Basin administration*, story by Daniel Kean and Marty McCarthy, 5 February, 2018 concerning a declaration from "12 concerned Australian academics" (economists and water scientists) who argue that billions of dollars have been wasted on irrigation projects that have not only failed to achieve intended environmental outcomes, but also failed to produce scientific evidence of increased net stream flows. The criticisms have been rejected by the federal government, Murray-Darling Basin Authority and National Irrigators Council. For comment about water usage see: **ABC NEWS RURAL**, *Murray-Darling Basin Plan: How much water is used to grow cotton?* Story by Kristy Reading, 26 July, 2017. **ABARES** statistics reveal (2014 - 2015) "The largest volume of irrigation water was applied to cotton, which used 26% of the national irrigation total for the year ... and contributed an average of 20% of the total gross value of irrigated agricultural production." Additionally, Maryanne Slattery, a former Director of the Murray – Darling Basin Authority notes the area selected by Webster Ltd. for their project, the Hay Plains, is "... as flat as a table ... should not have dams ... has temperatures that regularly soar above 40 degrees ... is unsuitable for dams because of the high rate of evaporation." See too: **WIKIFARMER** at: [wikifarmer.com/walnut-tree-water-requirements/](http://wikifarmer.com/walnut-tree-water-requirements/) "As a first rule of thumb, the average commercially grown walnut tree needs 1270 mm (50 inches) of precipitation every year. As a second rule of thumb, the walnut trees need more than 50% of the annual water supply during summer. However, in a very dry season, irrigation should be quickly applied in certain stages. Irrigation during winter (in areas where rainfall is very limited) has been reported to increase vegetation growth during spring. Moreover, maximum growth of nuts takes place during the 5th to 7th week after the blossom. If there is no rainfall, lack of irrigation during this period will result in a greater than average percentage of small nuts."

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<sup>12</sup> **The Advertiser**, *Almond orchard heads this week's commercial property selection*, 11 June, 2018, and **Financial Review**, *Americans snap up South Australian almond orchards*, 6 January, 2019 and **The Age, Business section**, 30 November, 2019 which speaks to the financial power of these large companies. For different points of view between river communities and Senior Counsel at the South Australian Royal Commission about "water buybacks" see: **ABC NEWS**, *What is the Murray-Darling Basin Plan and why are we still talking about it?* Story by Anna Vidot and Clint Jasper, 18 January, 2019 and, **ABC NEWS**, *Murray-Darling Basin Royal Commission slams authority for 'maladministration,'* story by Marty McCarthy, Kath Sullivan, Sarah Scopelianos and Tom Fedorowytch, 1 February, 2019. For comment about David Littleproud's future see: **Sunraysia Daily**, *Strip David Littleproud of water portfolio, Dalton says*, 29 October, 2019; **The Mandarin**, <https://www.themandarin.com.au/119688-mdba-accuses-60-minutes-of-breaching-code-of-conduct/> **The Australia Institute**, *We Need A Royal Commission Into The Management Of The Murray Darling Basin Now*, <https://nb.tai.org.au/mdroyalcommission>

<sup>13</sup> For comment about Mick Keelty's experience and the potential "seven years" before actual water becomes available for environmental use, **The Saturday Paper**, *Former AFP Chief eyes water officials*, 2 – 8 November, pp. 1 and 10. For comment about dwindling water supplies, **The Age**, *Warning over water security for big cities*, story by Peter Hannam, January 23, 2020.

<sup>14</sup> **Australian Government, Bureau of Meteorology**, *Water in Australia 2016 - 17*, July 2018 pp. 31 – 32, <http://www.bom.gov.au/water/waterinaustralia/files/Water-in-Australia-2016-17.pdf> For an effect of over use of artesian water see: **Time Magazine**, May 21, 2012, story by Kate Springer which reports that Shanghai is sinking through a combination of too much water taken from aquifers and the weight of high-rise buildings. By the 1950s - 60s Shanghai was sinking at the rate of four inches p.a. Currently, Shanghai is pumping 60,000 tons of water through 121 wells to slow the problem. <http://science.time.com/2012/05/21/soaring-to-sinking-how-building-up-is-bringing-shanghai-down/> **ABC NEWS RURAL**, *Capping and piping our greatest water resource for future generations*. Story by Sally Bryant, 23 July, 2015. For groundwater as a finite resource, **BOM**, *Water in Australia*, op. cit., pp. 31 – 32. For loss of groundwater see: **Australian Institute of Criminology Publication**, *Water Theft*, Canberra, last updated 3 November, 2017, which describes water theft as: "not just ... from natural water courses but the stealing of harnessed or piped water. The latter takes in offences of actual theft, breach of extraction conditions and construction of works to illegally take water, tampering with meters to relay false readings and contravening declared water restrictions." For apparent contradictions between federal and state legislation see: **The Guardian**, *Why Adani's planned Carmichael coalmine matters to Australia – and the world*, story by Michael Slezak, 16 August, 2017 and **Queensland Government, Business Queensland**, *Approval to use water from the Great Artesian Basin*, <https://www.business.qld.gov.au/industries/mining-energy-water/water/catchments-planning/water-plan-areas/great-artesian-basin/water-use-approval>

<sup>15</sup> **Australian Government, Department of the Environment and Energy**, *Coal and coal seam gas – Regulation*, <https://www.environment.gov.au/water/coal-and-coal-seam-gas/regulation> For information about George Bender's problems with coal seam gas see: **Warwick Daily News**, *Anti-coal seam gas farmer's death lights fire in locals*, story by Jayden Brown, 27 October, 2015; and **Warwick Daily News**, *CSG industry blamed for death of cotton farmer*, story by Hamish Broome, 15 October, 2015. See also, **Newcastle Herald**, *The last drop – government puts faith in Hunter River water modelling*, 14 January, 2020. The paper reports, from the Lock the Gate Alliance, How good is washing coal while our farmers go without? "Coal mines are to continue harvesting water from the Hunter River system unabated even if the drought worsens. Meanwhile, water to the agricultural sector will be progressively slashed. How good's that? For the sentiment of the Bender family see: <https://www.queenslandcountrylife.com.au/story/3434983/bender-family-statement/>

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For the time lapse on restoring water to the Bender property see: **Warwick Daily News**, op. cit., 15 October, 2015. Note too, a report in **The Guardian**, 24 April 2016 about a New South Wales parliamentarian, Jeremy Buckingham, who produced film footage of himself lighting the Condamine River with a barbecue lighter. Buckingham claimed that methane gas enabled him to ignite the river surface and its presence was due to CSG fracking about 5 km from a place called Pumphole where the gas was most prolific. The CSIRO examined the phenomenon and disputed Buckingham's claim insisting the gas seepage was unlikely to be linked to fracking in the region. Whether the presence of methane on/in the river is, or is not due to fracking hardly seems relevant: it is a potentially serious health hazard for those living in the area. For further information about water conflict see: **CONCA**, Ken op. cit., p. 8 who warns that "... what is being learned about water and conflict at both the international and national levels, is that the problem is more complex than simply zero-sum competition for scarce water supplies. If there is a risk of large-scale violence, it stems not from physical water scarcity but from institutionalised *arrangements that shape how actors govern water*. The risks – of destructive competition, failures of cooperation, and perhaps even violent conflict – increase when such arrangements are ineffective, illegitimate, or unable to adapt to changing circumstances. International cooperation initiatives and national policy reforms that frame the problem narrowly as water scarcity will not be effective conflict management tools." For BHP to pay for groundwater see: **ABC NEWS RURAL**, *BHP forced to pay for Great Artesian Basin Water*, story by Annabelle Homer, 13 October, 2011. For content about mental health focus see: **Parliament of Australia**, Mental health reform is a key component of the Australian Government's 'long term health plan [https://www.aph.gov.au/About\\_Parliament/Parliamentary\\_Departments/Parliamentary\\_Library/pubs/rp/BudgetReview201819/MentalHealth](https://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/pubs/rp/BudgetReview201819/MentalHealth)

<sup>16</sup> The forgotten drive behind George Bender's problems was Australia's aim to become the world's biggest gas exporter. An aim said to provide a "huge boost to Australia's GDP over the next 20 to 25 years and beyond ... because fuel starved Asian markets ... will pay triple what Australians do for energy, a bonanza for gas producers." The down side noted at the time was that gas prices would increase for households, cause factories like CSR and others to re-trench staff because of unaffordable manufacturing costs, industries moving off shore and large businesses becoming uncompetitive. Yet still the drive to source new supplies of **coal-seam gas** continued in order to service "massive export licences" for "huge new facilities in Queensland." All this in the face of warnings from *Manufacturing Australia* that consequences for the economy would be dire: a potential loss of \$28 billion to our GDP in addition to 100,000 direct jobs forfeited, as well as loss of the indirect employment behind and in support of those jobs. **ABC NEWS**, *Australia's gas export aims could cost 100,000 jobs, manufacturers say*, story by Greg Hoy, 27 March, 2014. Greg Hoy's article also provides insight to some of the backbiting in federal parliament over a cohesive energy policy for all Australians.

<sup>17</sup> **The Age, Good Weekend**, *The Melbourne Century*, story by George Megalogenis, 25 January, 2020, pp. 20 – 24, and **SMITH, Dick**, *Population Crisis – The dangers of unsustainable growth for Australia*, Allen and Unwin, Crows Nest, New South Wales, 2011, pp., 1– 19.

<sup>18</sup> For a concise history of desalination see: <https://www.water.vic.gov.au/water-grid-and-markets/desalination/desalination-background/desalination-history> p.1. See also: **The Age**, *Push for huge seawater plant*, story by Peter Ker, 7 April, 2007. For use of de-salination more generally see: <https://www.water.vic.gov.au/water-grid-and-markets/desalination/desalination-background/desalination-history> p.1. For the cost of producing desal water and the impact of an increasing population see: **SMITH, Dick**, op. cit. p. 55. For use of desalinated salt water in Australia, <https://www.legco.gov.hk/research-publications/english/1415fs10-seawater-desalination-in->

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[australia-20150930-e.pdf](#) p.1. It is worth noting that the 2% of recycled water used in WA is returned as **recharge** to groundwater aquifers. [http://www.awa.asn.au/AWA\\_MBRR/Publications/Fact\\_Sheets/Desalination\\_Fact\\_Sheet.aspx](http://www.awa.asn.au/AWA_MBRR/Publications/Fact_Sheets/Desalination_Fact_Sheet.aspx) pp., 2 – 5; and <https://www.agriculture.gov.au/water/urban/completed-programmes/national-urban-water-and-desalination-plan> Many projects are in-train some of which include stormwater harvesting for golf courses, sporting grounds, council facilities, airports, parklands, wetlands and markets. [http://www.awa.asn.au/AWA\\_MBRR/Publications/Fact\\_Sheets/Desalination\\_Fact\\_Sheet.aspx](http://www.awa.asn.au/AWA_MBRR/Publications/Fact_Sheets/Desalination_Fact_Sheet.aspx), op. cit. p.6. See also: **Productivity Commission**, *Australia's Urban Water Sector; Productivity Commission Inquiry Report*, Australian Government, 2011, pg xxiii For drinking recycled water see: **ABC NEWS, Big Australia**, *Australians will have to get used to drinking recycled water*, story by Jessica Longhorn, 19 March, 2018. *Bushfires and Water Quality*, <https://www.waterquality.gov.au/issues/bushfires> For effect of logging on water quality: **ABC NEWS, Big Australia**, *Concern for Melbourne's drinking water after scientists allege illegal logging*, story by Michael Slezak, 20 November, 2019. For use of reclaimed water: **Wikipedia**, *Reclaimed Water*. Countries using reclaimed water include Canada, China, Israel, Japan, Jordan, Mexico, South Africa, Tunisia, USA. In the same article: *Barriers to water recycling* identified within Australia and overseas include: "... regulatory, economic, social and institutional challenges; economic viability of water re-use schemes; costs of water quality monitoring and identification of contaminants. Difficulties in contaminant identification may include the separation of organic and inorganic pollutants, microorganisms, Colloids and others; full cost recovery from water re-use schemes – lack of financial water pricing systems comparable to already subsidised conventional treatment plants; psychological barriers, sometimes referred to as the "yuk factor" can also be an impediment to implementation, particularly for direct potable reuse plans. These psychological factors appear to be closely associated with disgust, specifically with pathogen avoidance."

<sup>19</sup> Prime Minister John McEwen of the Country Party is included for accuracy even though his tenure as PM was brief – 18/12/1967 to 9/01/1968.

<sup>20</sup> **O'BRIEN**, Kerry, *Kerry O'Brien – a Memoir*, Allen & Unwin, Crows Nest, NSW, 2018, p.358. Ibid., p.728. A blog attributed to Malcolm Turnbull after Tony Abbott unseated him as Prime Minister reads, in part, "The Liberal Party is currently led by people whose conviction on climate change is 'crap' and you don't need to do anything about it. Any policy that is announced will simply be a con, an environmental fig leaf to cover a determination to do nothing." And at page 770, O'Brien notes that as late as 2018, "... we're not arguing about how high (the) price on carbon should be set but whether or not there should be any price on carbon at all. And Malcolm Turnbull has lost the Liberal leadership a second time leaving the government's climate change policies in disarray." Little wonder people like 16-year-old Swedish activist, Greta Thunberg, have views that diametrically oppose those of the Liberal Party – "I want you to feel the fear I feel every day. And then, I want you to act," she has said. **HOWARD**, John, op. cit., p. 643 on the other hand, maintained Australia would not support Kyoto until other countries did so ... until the stars aligned into his "perfect storm." (645,6). But see **The Age** (15/12/2006) which featured a thought provoking article about a boutique London Bank, *Climate Change Capital*, whose investment in the carbon market was projecting savings of nearly 30 million tonnes of carbon dioxide emissions over the following six years, said savings to be sold as credits most probably on the European market. Howard also indicates that later analyses of Stern's report asserted it was based on flawed assumptions, particularly the "... methodology which measures future benefits against present costs," **HOWARD** John, op. cit., p. 646. Yet Stern's analysis regarding a fall in Melbourne's water supplies by up to 35% were a two degree rise in temperature to occur was independently supported by a **CSIRO** study in 2005, **The Age**, 1 November, 2006, story by Rachael Kleinman. On the same day, **The Age** also published, *Howard defiant on climate*, a story by Michelle Grattan, Jewel Topsfield and James Button in which Howard

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reiterated his stance that “ Australia would join a ‘new Kyoto’ agreement on greenhouse gas reductions only if it included every other country.” **HOWARD** John, op. cit., p. 643 and 645. See also: **Weekend**, *Save our planet*, story by Greg Thom, 19 May, 2007 who notes when it comes to polluting the environment and consuming energy, Australia is one of the world’s worst offenders. In global terms, the Australian way of life is fundamentally unsustainable.

<sup>21</sup> For examples confirming Howard’s view of shifts in business focus: **The Age**, 20 March, 2007, *Energy giant to join US emission trading fund*, story by Marian Wilkinson and Katherine Murphy. **AGL** became the first big Australian company to join the *Chicago Climate Exchange*, a move designed to enable the company to profit from its efforts to cut greenhouse gas emissions, a practise it could not undertake in Australia. **ABC NEWS**, *Norway’s \$US1 trillion sovereign wealth fund to dump billions in coal investments*, story by Stephanie Chalmers 13 June, 2019. For John Howard’s philosophy towards an Emissions Trading Scheme, see **Howard**, John, op. cit., pp. 644 – 647. Such has been the shift since Howard’s philosophy of 2007 that on Friday, 8 February, 2019, “... Chief Judge Brian Preston of the New South Wales Land and Environment Court handed down a landmark judgement confirming a decision to refuse a new open-cut coal mine near Gloucester in the Hunter Valley. See also: **ABC NEWS**, *Landmark Rocky Hill ruling could pave the way for more courts to choose climate over coal*, story by Justine Bell-James, 12 February, 2019. And, **ABC NEWS**, *ANZ to shed more than \$700M in loans to thermal coal projects by 2024, leaked document reveals*. Story by Michael Slezak 6 December, 2019. More recently, **The Age Business** proclaimed, *Corporations vulnerable to climate backlash*, story by John McDulling, 18 January, 2020 who wrote – “Blackrock, the world’s largest institutional investor, announced a retreat (of sorts) from the resources sector as part of what it described as a climate-driven ‘fundamental reshaping of finance.’” McDulling also notes Norway’s change in fossil fuel investments and Sweden’s Central Bank decision to dump bonds issued by Queensland and Western Australia state governments saying that if Blackrock (managing \$10 trillion globally) continues its press for change, a number of Australian resources **will** be affected. For governmental failure to act on climate change, **The Age**, *Crisis? What crisis?* Story by Dr Peter Christoff 1 November, 2006 in which, *inter alia*, he asserts that “For a decade, the Federal Government has failed to act on the CSIRO’s internationally respected advice about the seriousness and urgency of climate change for Australia’s eco-systems and, by extension, rural production. Australia has no national policy to adapt to climate impacts. It has drought relief.” For the strengthening link between human action and global warming and action by vested interests to discredit climate change, **O’BRIEN**, Kerry, op. cit., p. 360. See also, **PINKER**, Steven, *Enlightenment Now – The case for Reason, Science, Humanism and Progress*, Penguin Random House, London, 2018, pp. 138 – 139, where he refers to “... the infamous David and Charles Koch, the billionaire oil industrialists and bankrollers of climate change denial ... helping to defeat a 2016 Washington state ballot initiative that would have implemented the country’s first carbon tax, the policy measure which almost every analyst endorses as a prerequisite to dealing with climate change.” In Australia, Gina Reinhart has been revealed as a \$4.5M donor to the **Institute of Public Affairs**, an organisation regarded as both climate sceptic and right-wing think tank – **The Guardian**, 21 July, 2018. Also, the **Independent Australian** and a story by Graham Readfearn 29 June, 2012 about “Gina Reinhart’s battle against climate change science ... using her substantial stakes in two leading media companies to promote the views of climate science deniers,”. Rinehart’s status as a wealthy climate denier was also noted in the UK on 28/06/2012 [www.independent.co.uk/news/media/press/gina-rinehart-the](http://www.independent.co.uk/news/media/press/gina-rinehart-the) For Penny Wong introducing new emissions targets, **O’Brien**, Kerry, op. cit., p. 698. For shifting focus towards renewables see: **The Australian**, *Don’t extend coal power plants: Origin*, story by Perry Williams 25 October, 2019. For Shane Stone’s distaste in answering a “climate change” question, **The Guardian**, story by Sarah Martin, 10 December, 2019.

<sup>22</sup> **PINKER**, Steven, op. cit., pp. 136 – 137 for his outline of climate change and comment re the World Bank at p.137 referenced on p. 464 as EN 42. **ABC NEWS**, *Climate emergency declared by 11,000*

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scientists worldwide who warn of ‘catastrophic threat’ to humanity, story by Michael Slezak, 6 November, 2019. While the UK, Scotland and Ireland are among countries that have declared a “climate change emergency,” together with more than 1,000 subnational jurisdictions, including the ACT, Sydney and Melbourne, in October this year, “... the Federal government voted down an attempt to declare a climate emergency across the country, with the Morrison Government’s Emissions Reduction Minister, Angus Taylor, labelling it a “symbolic” gesture.” For the American Institute of Physics timeline by Spencer Weart, <https://history.aip.org/history/climate/timeline.htm> and, **The Age**, *Global warming ‘started in the 1830s,’* 25 August, 2016, story by Peter Hannam. For the prescience of the 2007 CSIRO paper linking climate and bushfires. **ABC NEWS**, *Scott Morrison should listen when top fire chiefs call him out on climate change*, story by Michelle Grattan, and **The Conversation**, 15 November, 2019. **ABC NEWS**, *As fire seasons overlap in Australia and California, sharing firefighting resources will only get harder*, story by Zoe Daniel and Amy Donaldson, 6 November, 2019. Apart from problems caused by overlapping fire seasons between these two countries, this article reveals that Greg Mullins, life-long fire fighter, former head of Fire and Rescue, NSW and member of the *Climate Council and Emergency Leaders for Climate Action* together with 22 members of the Emergency Leaders **sought a meeting with Prime Minister Morrison in April 2019** to discuss climate change and the “missing capacity to fight fires in the new era.” Failure met their requests and they were “fobbed off” to Angus Taylor who was not the right Minister to speak with. “It’s not that Morrison denies climate change. It’s that he refuses to acknowledge it as a central issue, either because he doesn’t see it as such or because he fears provoking right-wingers,” says Mullins. See: **ABC NEWS**, 15 November, 2019, op. cit. For an optimum way forward in dealing with unprecedented bushfires, **ABC NEWS**, *Indigenous leaders say Australia’s bushfire crisis shows that approach to land management failing*, story by Marian Faa, 14 November, 2019. **ABC NEWS**, *The causes of unprecedented bushfires are complex but climate change is part of the puzzle*, story by David Bowman, 12 November, 2019.

<sup>23</sup> For reluctance to comment, **The Saturday Paper**, 16 – 22 November, 2019, op. cit., p. 10. For reduced value of the fossil fuel industry, **The Age**, *Climate change could spark \$2.3 trillion market shift*, story by Emily Chasan, 12 December, 2019. The story notes that “... world stock markets are likely to see an impact from climate change in the next five years as policy changes to reduce global warming could force a net \$US1.6 trillion (\$2.3 trillion) repricing in sectors from energy to agriculture.” For rising temperatures off Tasmania, **ABC NEWS**, *Waters off Tasmania’s east coast are warming at a rate four times faster than the global average*, story by Phoebe Hosier, 8 February, 2020. For record temperature in Antarctica, **ABC NEWS**, 8 February, 2020. See also: **ABC NEWS, Science**, *Australia is the world’s third-largest exporter of CO2 in fossil fuels, report finds*, story by Nick Kilvert, 20 August, 2019. And: **ABC NEWS**, *ATO says multi nationals disputing billions of dollars in tax bills amid crackdown on profit shifting*, 24 December, 2019. For comment on “carry over credits” at COP25, **ABC NEWS**, *‘Carry-over credits’ will be debated at COP25 and the result has implications for Australia*, story by Michael Slezak, 10 December, 2019. Mining, oil, gas, e-commerce and pharmaceuticals are among those disputing taxes worth billions of dollars. For twinning with Brazil, **ABC NEWS**, *UN climate change talks in Madrid end with no agreement on carbon market rules or stronger pledges*, 16 December, 2019. For Australia’s status in the world energy and climate debate, **The Age**, *Energy chief says climate debate among the world’s worst*, story by Bevan Shields, 21 December, 2019. For political cowardice, **ABC NEWS**, *The day that plunged Australia’s climate policy into 10 years of inertia*, story by Annabel Crabb, 24 November, 2019. For Churchill’s advice, **GERGIS**, Joelle, op. cit., p. 215

<sup>24</sup> For lack of leadership, *Ibid.*, pp. 100 -102, and **ABC NEWS**, *Bushfire emergency reveals Scott Morrison’s leadership failure not just policy vacuum*, analysis by Laura Tingle, 14 December, 2019. For the leadership philosophy about “motivating others,” the renowned perspective of Sinclair Imrie

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“Mick” Miller, AO, LVO, QPM, former Chief Commissioner of Victoria Police, 13/10/1926 – 06/08/2019. After years of study into many aspects of leadership across a variety of activities Miller developed his own *six-word definition of leadership* which he considered applied equally to running a Cub or Brownie pack, a football team, a police force or the country. For robodebt problems, **ABC NEWS**, *The robodebt scheme was a political disaster – but that’s not necessarily why the Government is ditching it*, story by Laura Tingle, 23 November, 2019. See also: **The Age**, *‘Robo-debt’ wiped in legal twist*, story by Cameron Houston and Chris Vedelago, 6 May, 2019. Department of Human Services wiped a \$4,000 debt at the centre of a Federal Court challenge ... the decision fuelled claims ... its automated program cannot withstand legal scrutiny. For comment about unimplemented Royal Commission recommendations, <https://theconversation.com/deaths-in-custody-25-years-after-the-royal-commission-weve-gone-backwards-57109>

<sup>25</sup> For the extent of Commonwealth Constitutional power see: [https://en.wikipedia.org/wiki/Commonwealth\\_v\\_Tasmania](https://en.wikipedia.org/wiki/Commonwealth_v_Tasmania) and <http://envlaw.com.au/Tasmanian-dam-case/> and for effect of bad policy, **The Age**, *Climate change body lacking in credibility*, story by David Karoly and Clive Hamilton, 6 September, 2016

<sup>26</sup> **SIMMONS**, Margaret, *Cry Me A River – The Tragedy Of The Murray-Darling Basin*, Quarterly Essay, Issue 77 of 2020, especially pp. 70 – 77.

<sup>27</sup> For problems arising from conflict over water, <https://reliefweb.int/report/world/editor-s-pick-10-violent-water-conflicts> and <https://worldwaterreserve.com/water-crisis/causes-of-water-conflict/> For the accretion of agricultural power, **The Age**, *Macquarie looks to harvest farming assets*, story by Clancy Yeates, 4 January, 2020, and for “investable asset class,” **The Age, Business**, 4 January, 2020, p.5.

<sup>28</sup> **GERGIS**, J., op. cit., p.207.

<sup>29</sup> **HARTCHER**, Peter, *Red Flag – Waking up to China’s Challenge*, Quarterly Essay, No. 76, 2019, p.p. 25 - 26.

<sup>30</sup> **ABC NEWS**, *What’s the case for a federal ICAC?* story by Gabrielle Appleby, 10 September, 2014. See too: **The Conversation**, *A National ICAC? We need better anti-corruption bodies, not more*, story by Olivia Monaghan, 8 May, 2014; and **ABC Four Corners**, *Democracy for sale*, presented on Monday, June 23, 2014, a story of corruption across Australia through failure to properly regulate political donations, story by Linton Besser and Ges D’Souza; and **The Age**, *Politicians must be seen to honour public trust*, Editorial, October 25, 2014; and **ABC 7:30 Report**, *Money Man*, story by Dylan Welch and Jodie Noyce about a billionaire property developer arriving at the inner circle of federal politics as a key donor to Liberal and Labor members after being in Australia from China only four years, June 10, 2015. For the effectiveness of a **Royal Commission**, Appleby, op.cit., ABC NEWS, 10 September, 2014. For the paradox of PM Morrison refusing a Banking Royal Commission, **The Weekend Australian**, *PM open to a Royal Commission into power industry, saying energy companies were as bad as big banks*, story by Rachael Baxendale, 3 September, 2018. For secretive influences upon government, **The Age**, *The rise of the lobbyist corrupts our democracy*, comment by John Menadue on the way in which vested interests distort public debate through lobbyists, full-time and part-time, operating secretly in Canberra, 18 May, 2015. See also, **The Australian**, *Democracy under threat as trust in system broken*, story by Paul Kelly, Editor-At-Large, a piece commenting on major research by Mark Textor revealing deep public concern about the nation’s direction and condition that recognises the need for reform but has profound distrust in the ability of the political class to make it work, 4 May, 2015. For Australia’s status on the International Transparency Index,

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<https://www.ibac.vic.gov.au/publications-and-resources/ibac-insights/issue-15/knowledge-sharing/transparency-international-corruption-perception-index-2017> Australia's score has declined for the sixth year running in Transparency International's Corruption Perception Index (CPI). Australia remains in 13<sup>th</sup> place, a position held for the last three years, however Australia's CPI score has fallen from 79 in 2016 to 77. New Zealand occupied No. 1 position as *least* corrupt. In comparison to Australia's declining score, over the last six years the UK has improved its score from 74 to 82 placing it among the top ten least corrupt nations. **ABC NEWS**, *Federal ICAC: Former judges call for national anti-corruption watchdog*, story by Matt Peacock, 3 November, 2017. For need of checks and balances, **The Australian**, *The case for a clearer ICAC oversight has been proved*, Editorial, 17 August 2015; **Weekend Australian**, *Confining the watchdog to the yard*, story by Chris Merritt, 18 – 19 April, 2015; **The Australian**, *ICAC challenges Baird to 'restore' the powers it thought it had*, story by Leo Shanahan and Mark Coultan, 21 April, 2015; **Weekend Australian**, *Cunneen turns the tables on ICAC*, 30 – 31 May, 2015; **The Australian**, *Court reserves decision on law to shore up ICAC*, story by Jared Owens, 6 August, 2015; **The Australian**, *Cunneen 'joking' on secret tapes*, story by Sharri Markson and Chris Merritt, 12 February, 2016. **Weekend Australian**, *Watchdog not designed to succeed*, story by Chris Merrett, 14 - 15 February, 2015. For body of strength and integrity, **The Age**, *PM warned not to adopt toothless watchdog*, story by Adam Gartrell, 17 January, 2018. **The Age Insight**, *River over-tapping drains trust*, story by Peter Hannam, 20 July, 2017. South Australian Water Minister, Ian Hunter in calling for a judicial enquiry into the way water is managed under the Murray – Darling Basin Scheme alluded to his distrust of a New South Wales enquiry because of limited terms of reference, powers to extract documents and to call witnesses as well as a failure to prosecute breaches.

<sup>31</sup> For the strengthening of “whistle-blower” legislation see, <https://publicintegrity.org.au/mr-accountability-institutions-are-under-attack-former-integrity-officials-call-for-greater-independence-funding-and-powers/> A media release on 29 October, 2019 advocates ten key points to “strengthen accountability within institutions.” The ten points are:

- Independence from government.
- Freedom from political attack and protection from political retribution.
- Secure and sufficient funding with multi-year funding provided.
- Broad jurisdiction and strong powers.
- Secure tenure of senior officials.
- Non-partisan and merit-based appointments with fair and transparent appointment processes.
- Transparency and compliance allowing public access to accountability institutions' advice to government. Ability for accountability institutions to request progress reports from government on integrity recommendations.
- Stronger recognition of the public benefit of advocacy as a charitable purpose.
- Independence from commercial interests; proper funding of public broadcasters; diversity in media ownership to break current duopoly; close the revolving door between the big four consultancies and public service and industry and regulators.
- Mandatory reporting of public sector misconduct to a National Integrity Commission; adequate protection of whistle-blowers; retribution for failure to report to the NIC.

For examples of government conduct which could rebound on whistle-blowers see **ABC NEWS**, *Federal government targeted marginal seats in potentially illegal sports grants scheme, auditor-general reports*, story by Jack Snape, 16 January, 2020, and **ABC NEWS**, *Malcolm Turnbull defends surprise \$444 million Government donation to tiny reef body*, story by Louise Yaxley, 3 August, 2018. The curiosity of this story was expressed by Senator Whish – Wilson who said it was “an alarming

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captain's call. We've never heard of a process where the recipient of half-a-billion dollars of taxpayers' money gets it from the Prime Minister in a secret meeting without ever having asked for it in the first place;" and **STEGGALL**, Zali , *Why we need integrity in federal parliament*, 4 December, 2019, [https://www.zalisteggall.com.au/there\\_needs\\_to\\_be](https://www.zalisteggall.com.au/there_needs_to_be) For punitive action against whistleblowers, **ABC NEWS**, *Murdoch University drops financial claim against whistleblower academic after backlash*, story by Elise Worthington, 13 January, 2020 and **The Australian (Legal Affairs)**, *Whistleblowers go unprotected as evildoers try to shoot the messenger*, story by A.J.Brown, 25 October, 2019, and **The Age**, *CBA whistleblower to settle*, story by Cara Waters, 26 May, 2018.

<sup>32</sup> For a significant **political example**, the bugging of Prime Minister Alkatiri's office in Timor Leste by *ASIS*, under the aegis of the Howard government in 2004 in an attempt to obtain economic advantage for Australia during negotiations over the oil and gas rich Timor Gap is hard to beat. In colloquial Australian terms, it was an act of political bastardry in which none of the Australian players – Liberal or Labor – emerge with grace. It was a case of the shark dining on minnow for sheer economic supremacy. Subsequently, this government directed conduct has resulted in the prosecution of an *ASIS* whistle-blower, *Witness "K" and his legal counsel*, Bernard Collaery. Whilst the government might clothe this prosecution as a matter of *national security*, in the minds of most Australians, it remains nothing more than a straight forward case of economic espionage which strongly debases Australia's reputation. How curious there appears to be no reference to the event in John Howard's book, *Lazarus Rising*. See:

[https://en.wikipedia.org/wiki/Australia%E2%80%93East\\_Timor\\_spying\\_scandal](https://en.wikipedia.org/wiki/Australia%E2%80%93East_Timor_spying_scandal) ;  
<https://independentaustralia.net/politics/politics-display/punishing-the-patriots-australia-bugging-and-east-timor,11665> ; <https://www.abc.net.au/news/2018-07-12/politicians-call-for-afp-to-investigate-east-timor-bugging/9986908> ; <https://rex.centrealiance.org.au/media/releases/east-timor-bugging-scandal-referral-of-senior-government-officials-to-australian-federal-police/> ;  
<https://www.canberratimes.com.au/story/6406973/east-timor-bugging-cases-return-to-court/?cs=14329>

Contrast the East Timor matter with the thousands of intelligence files leaked by Edward Snowden, formerly of USA's *National Security Agency*. These files contained information belonging to the USA, the UK, Australia and Canada too. Information published by newspapers around the world is said to have endangered the lives of intelligence operatives in many countries. Among the files and information released was "... NSA's top-secret black budget, obtained from Snowden by *The Washington Post* which exposed the successes and failures of the 16 spy agencies comprising the U.S. intelligence community while revealing that the NSA was paying U.S. private tech companies for clandestine access to their communications networks. The agencies were allotted \$52 billion for the 2013 fiscal year." *No legitimate comparison can be made between the Howard government's conduct in East Timor and the actions of Edward Snowden in the context of national security.*  
[https://en.wikipedia.org/wiki/Edward\\_Snowden](https://en.wikipedia.org/wiki/Edward_Snowden)

<sup>33</sup> For shortfall on Australian whistle-blowing legislation  
<https://www.whistleblowing.com.au/learnnew/whistleblowing-legislation/> For pointers on the USA's Securities and Exchange Commission's approach to whistle-blowers see:  
<https://globalcompliancenews.com/before-the-whistle-blows-recent-developments-and-best-practices-for-effective-whistleblowing-programs/> For best practice points in British Columbia,  
[https://fipa.bc.ca/wordpress/wpcontent/uploads/2018/11/FIPA\\_Whistleblower\\_Paper\\_web.pdf](https://fipa.bc.ca/wordpress/wpcontent/uploads/2018/11/FIPA_Whistleblower_Paper_web.pdf)  
For informed Australian work written by Paul Latimer and Professor A. J. Brown, [https://research-repository.griffith.edu.au/bitstream/handle/10072/23199/53537\\_1.pdf%3bsequence=1](https://research-repository.griffith.edu.au/bitstream/handle/10072/23199/53537_1.pdf%3bsequence=1)

<sup>34</sup> For **Karpin Report**, <https://www.voced.edu.au/content/ngv%3A59951> For effect of budget cuts to CSIRO, **news.com.au** *\$140 million government funding cuts to the CSIRO will have huge impacts*

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on scientific research in Australia, story by Grace Koelma, 30 May, 2014, <https://www.news.com.au/finance/economy/federal-budget/140-million-government-funding-cuts-to-the-csiro-will-have-huge-impacts-on-scientific-research-in-australia/news-story/26d9a3f1e457930b205575e9c09a38d8> For CSIRO under threat, **news.com.au** *Job cuts, funding slashes prompt questions about future of CSIRO*, story by Lauren McMaha, 27 February, 2016, <https://www.news.com.au/technology/science/job-cuts-funding-slashes-prompt-questions-about-future-of-csiro/news-story/477272463cbbb519ba5118815a920dc8> For story of Chinese firms exporting Australian goods needed for the Corona Virus, **The Age**, *Chinese firm sourced Australian medical goods*, story by Kate McClymont, 26 March, 2020 and **The Age**, *Second developer flew supplies to China*, story by Kate McClymont, 27 March, 2020.