Coastal Adaptation – Towards a Statutory Reconciliation of Private Rights and Public Interests

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There is nothing permanent except change

- Heraclitus

Australia's beaches are a significant public asset attracting visitors from around the world and, unlike many other countries, our culture values unimpeded and free access to our coast. Along the populated East coast, however, major storm events and climate change impacts threaten to exacerbate the processes of coastline recession, and, increasingly, the narrowing of public beach buffers between the ocean and the boundaries of valuable private real estate. In the face of these impacts, tension between the protection of private property and public access to, and affording free use of, our beaches is increasingly being played out in our Courts.

Hard-engineered protective works, which tend to be preferred by private land owners, are often constructed without a coordinated approach to either down-drift erosion management or properly securing public access to, and use of, the beach. A rigid, line-drawn-in-the-sand approach to protecting private assets fails to account for the reality of ambulatory coastal zone boundaries and the need for flexible, future-focused legal frameworks (Corkill, 2013). This paper examines how the statutory implementation of an Australian-adapted Public Trust Doctrine and other mechanisms within a Torrens Title system might help reduce "adaptation by litigation."

1. INTRODUCTION

The Public Trust Doctrine is not a new device of law (Bonyhady, 1995; Thom 2010). In Australia, its limited application has often been drawn by analogy from the United States, and from older Australian cases that have considered the privatisation of public coastlines (Bonyhady, 1994; Sanderson, 1932). Extensive literature examines the doctrine, particularly in the US (Frank, 2012), and its central purpose can be surmised as an articulation of the community's expectation that the State will protect the free use and amenity of public lands.

2. APPLICATION IN THE UNITED STATES

The Doctrine is one of the cornerstones of environmental law in the United States, and has been subject to mainstream American legal academia's review since the early 1980's (Frank, 2012). A landmark decision in the State of California unambiguously prioritised a Public Trust interest in shoreline land over an individual's interest in land which had been acquired by way of legislative grant (Frank, 2012; see *City of Berkeley v. Superior Court,* 606 P.2d 362 (Cal. 1980)). The Doctrine also applies, as clarified in subsequent litigation, to inland lakes, tidal waters and other water rights including water quality and consumption. Richard Frank, of UC Davis School of Law, even goes as far as arguing that in addition to the Doctrine's foundation in California's constitution, common law and statute, the concept of land being held in a Public Trust is a *fundamental, inherent attribute of state sovereignty* (Frank, 2012: 686).

The US model allows each State to have use and control of the lands held in trust for public purposes:

States such as Louisiana and Texas have incorporated the Trust into statute as a form of state regulation, rather than as, effectively, uncompensated acquisition (Thom, 2012). Professor Bruce Thom evaluates a decision of the Florida Supreme Court to allow beach nourishment works despite landowner objections as *a way to balance public and private interests because without nourishment the public would lose vital economic and natural resources* (Thom, 2012: 30).

Similar to the use of sea walls within planned retreat policies in the UK, the Doctrine does not decree that development is prohibited on public or protected land, but rather, that any developments which are proposed must have the public interest as an overarching purpose (Thom, 2012).

3. APPLICATION IN AUSTRALIA

In Australia, this holds particular weight in coastal escarpments due to the cultural significance of our beaches, and the very real expectations of erosion and sea level rise that will impact our substantial expanse of coastline. In addition to community use of the coastline, preserving the foreshore is crucial for tourism.

A Public Trust Doctrine approach to the preservation of our coastlines offers an opportunity to strike a balance between the rights of private landowners and the rights of the public. Where these rights intersect, for example, where the Crown has granted land to an individual, the Public Trust Doctrine would elevate the State's interests above the common law property rights of an individual (Simpson, 2003). At face value, the preservation of our coastlines for public access and use would appear to be uncontroversial, however, as the process of implementing the Public Trust Doctrine may infringe upon an individual's private property rights, statutory implementation of the doctrine can prove tricky in practice.

A number of legal mechanisms may be available to adapt the Doctrine to contemporary Australian Law. Real property instruments such as rolling easements have been considered for coastal states in the US (Novack, 2016), and are designed to be particularly useful in areas of gradual yet perceptible coastline erosion. The doctrines of accretion and diluvion are fundamental in determining the seaward boundaries of coastal properties (Corkill, 2013; see also *Environment Protection Authority v Leaghur Holdings Pty Ltd* (1995) 87 LGERA 282 and provide for a flexible statutory recognition of the ambulatory nature of coastline boundaries.

Planning instruments, such as Coastal Management Plans ("CMPs"), can be introduced to guide Councils in planning decision-making, and localised approaches such as 'planned retreat' have been proposed in areas of high erosion risk (Productivity Commission, 2012). More aggressive planning schemes could require the acquisition of vulnerable properties, or even special exemptions for transaction costs of relocation, such as stamp duty, as incentive for homeowners to move away from high risk regions.

As an alternative to, or in conjunction with, the Doctrine, engineered coastal erosion management structures, such as sea walls and groynes, could be constructed by the State in order to protect private properties and community tourism. Litigation around this has been extensive (for example, *Byron Shire Council v Vaughan; Vaughan v Byron Shire Council* [2009] NSWLEC 88; *Byron Shire Council v Vaughan (No 2)* [2009] NSWLEC 110, see Lipman and Stokes, 2011), however there may be significant practical issues with this approach, including the scale and cost of such an operation, and the adverse impacts to the public lands (Thom, 2012), the permanent allocation of responsibility for maintenance between 'protected' landowners and the State, as well as inadvertent effects on beach amenity and down-drift erosion.

Collectively, the instruments that may need to be employed to give effect to the Doctrine in Australia must be flexible and future focused, practical in their financial and social feasibility, and effective in adapting to the detailed predictions of future coastline erosion.

4. PUBLIC AND PRIVATE INTERESTS

Individual landowners have sued their local Councils in negligence or nuisance, to injunct authorities from removing protective works, (and in turn, litigation to injunct a party from constructing protection works, see *Byron Council v Vaughan & Anor* [1998] NSWLEC 158), for recovery of damage and loss, or to seek orders for the mandatory maintenance of protective works (see, *Ralph Lauren 57 Pty Ltd v*

Byron Shire Council 2010/40184; *Ralph Lauren 57 Pty Ltd v Byron shire Council* 2010/426976), or to appeal the refusal of development applications to protect their properties (see, *Scott v Byron SC* (21 November 1996) 10513/960), to name a few examples. Conversely, public interest litigants have taken action against Councils in an attempt to prevent the construction of coastal protection works (see *Positive Change for Marine Life Inc v Byron Shire Council* [2015] NSWLEC 147; *Positive Change for Marine Life Inc v Byron Shire Council (No 2)* [2015] NSWLEC 157). O'Donnell and Gates broadly categorise this litigation into two groups – owners who seek to appeal a development consent that has been refused on the basis of climate change considerations, and those who seek to object to an authority's decision for a lack of consideration of climate change (O'Donnell and Gates, 2013). It is regrettable that planning decisions such as these are only reached by way of litigation. A better response to the prospect of climate change induced erosion would be to accept the ambulatory nature of boundaries, and to develop practical policy responses that reflect this understanding (Corkill 2013).

Professor Thom warns of the consequences of protective works:

> *If property and planning law in Australia ever favours construction of defences against incursion of the sea and loss of land through erosion or inundation, then in populated areas it is highly likely that we will lose beaches and foreshore access*.
> *(Thom, 2012: 22-23)*

Protective works do not exist in isolation. They often have secondary erosion impacts further along the shoreline and create an ongoing burden for the proponent in extensive maintenance and repair obligations (Kellett, 2012).

The Australian Government's Productivity Commission released a report in 2012 detailing the barriers to effective climate change adaptation (Productivity Commission, 2012). A submission to the Commission by the Gold Coast City Council recommended a cost-benefit analysis be undertaken in order to determine where adaptation programs are appropriate (Productivity Commission, 2012: 218). Within its report, the Commission suggests that compensation for any broad policy changes may be just, and particularly in circumstances where: a large burden is placed on a small group of people (especially if they are already disadvantaged); if the policy largely benefits an advantaged group in the community; and/or the changes in policy are "largely unanticipated and involve material changes to a well-defined and defensible 'property right'" (Productivity Commission, 2012: 216). This practice particularly applies when policy intervention and financial assistance from the government is able to efficiently use resources for climate adaptation. Any benefits of modifying the built environment, or attempting to mitigate the impacts of climate change using protective structures, can be outweighed by the cost of doing so, especially in comparison with the alternative – an adaptive compensation arrangement.

Even where it is apparent that public interest projects should be prioritised at the expense of an individual's interest in land, it would be remiss to disregard the importance of property to individuals; considered stakeholder consultation is crucial and must be rigorous where acceptable community risk is being evaluated (Productivity Commission, 2012). Landowners may fall into the trap of having overly ambitious views of the potential of their land, and as such, inflate its physical capacity for development where there is clear evidence to the contrary (Thom, 2012). The expectation of landowners is that their property rights will be consistent, and they will have the trademark qualities of *exclusivity, tradability and alienability* (O'Donnell and Gates, 2013: 323) of which can be typically attributable to real property ownership. Gates and O'Donnell evaluate this as more of a reflection on the social emphasis placed on land ownership than as an entitlement referable to a legal right (O'Donnell and Gates, 2013).

If there is exclusive focus on private rights at the expense of the public interest, there will be great difficulty in adapting to climate change in an adequate way (Thom, 2012). This will have an overall detrimental impact on Australia's response to climate change, and our obligation to protect and adapt to the biophysical features of our coastlines. Instead of a common law property rights approach, a resource-based approach is both cost effective and in the best interests of the public at large.

4.1. Assigning Liability

In Australia, local Councils are normally responsible for the local and regional development controls employed to restrict inappropriate development. They are, however, guided by the planning instruments, legislation, regulations and guidelines of State and, sometimes, Federal agencies which can dictate policy direction even at a local level. Councils are also subject to the jurisdiction of the

relevant environment and planning law Courts of their State and Territories, where appeals of their planning decisions are heard, judgments bind councils to an outcome, and precedent is handed down for further decisions. In this way, Councils accrue the liability for most of the planning decisions in this sphere, however much of the policy direction is sourced from higher tiers of government.

Beyond this, individual owners are responsible for their own assets in the absence of an explicit scheme enacted by government, and similar approaches can be even more autonomous, such as in Denmark (Kellett, 2012). In the United Kingdom there is no right to be protected from flooding and coastal erosion (Kellett, 2012), therefore it rests upon the individual proprietor to make decisions about their assets. In the event of a disaster, Federal and State governments are likely to provide assistance to individual property owners, as occurs for example, in Queensland after large natural disasters (Queensland Government, 2018). This does not usually extend to adaptive mechanisms that protect individual at-risk properties.

5. APPLYING THE PUBLIC TRUST DOCTRINE IN AUSTRALIA

5.1. Planned retreat

Planned retreat is a policy that could be used to incorporate the Public Trust Doctrine into local planning decisions. Planned retreat, sometimes referred to as “managed retreat”, is a soft planning response to the threat of coastal inundation, and has some advantages including reduced cost, minimal impacts on coastline ecosystems, and reduced impacts on future development. This is a coastal adaptation scheme which does little to inhibit human access and use of the foreshore.

There are many forms of planned retreat. In the UK, coastal realignment projects involve the total or partial removal of defensive structures such as sea walls, which allow the foreshore to be inundated either gradually or as storm events occur (NCCARF, 2017). Other examples may involve minor erosion prevention infrastructure, however this would be set back further landward, with a resultant effect that is less harsh than a traditional sea wall.

In Queensland’s Lockyer Valley, the Regional Council instigated a policy of relocation which offered an opt-in retreat by way of land ‘swap’ following extensive flooding in this area in 2010-11 (Productivity Commission, 2012). The Council had acquired land just shy of the flood-prone areas, and offered to ‘trade in’ these lots for parcels of land affected by the disaster. A similar planned retreat strategy was employed in California, where two properties were acquired as they were at risk of coastal inundation and flooding in storm events (US Department of Commerce, 2007). The acquisition of these properties was coupled with soft restoration of the dune foreshore and the nearby estuary, which harboured a sensitive ecological community.

Other retreat strategies involve more complex and longer-term relocation. An example is the strategy proposed by Byron Shire Council (Byron Shire Council, undated), which sought to restrict development in areas subject to high erosion risk, either by rejecting applications for development within 50 metres of the erosion escarpment or by restricting the types of permissible development: such as allowing relocatable development to be built beyond 20 metres landward of the erosion escarpment.

Planned retreat strategies are not without controversy, as the fundamental basis of the scheme is to minimise the use of coastal lands, which effectively curtails the private property rights of landowners. Retreat impacts not only the future development of existing lands, but in addition, the manner in which landowners can protect their existing properties and make use of their lands for this purpose. At best case, where a planned retreat scheme has longevity and is employed consistently along the region’s coastline, there is still widespread community resistance to development restrictions being placed on their usually lucrative and desirable waterfront properties (see for example, Byron Shire News, 2009; O’Donnell 2016).

In the more likely scenario where a Council introduces an ambitious retreat plan and is subsequently unable to action it with longevity and consistency (due to litigation, changes in government or the enforcement capacity of Council), the scheme fails in its object to create a coordinated retreat from the hazard of coastal erosion, and is unable to adapt local planning policy to protect public lands from the impacts of erosion.

5.2. Accretion and Diluvion

The Torrens Title registration of land ownership is a legal mechanism for tracing and identifying legal interests in land, however the indefeasibility of ownership via registration does not provide certainty or ensure accuracy with respect to property boundaries (Corkill, 2013). Further, no property boundary (including a boundary which is certain) is exempt from the doctrines of accretion and diluvion, which provide that seaward boundaries of private coastal lands are subject to the oscillation of sea levels, and are not fixed (see *Southern Centre of Theosophy Inc v South Australia* [1982] AC 706).

The law in this area acknowledges the ambulatory nature of boundaries which separate private property from the public foreshore. There is, however, work to be done in putting into place a scheme which responds to future erosion, and adaptive mechanisms which *plan* for a rise in sea level, rather than *reacting* to changes that arise (Kellett, 2012).

5.3. Real Property Instruments – Rolling Easements

The Public Trust Doctrine acts to elevate the State's interest in public lands in the event of a dispute or change in geographical composition of a region; property dealings and instruments which are currently in use may be an effective vehicle to incorporate the Doctrine within current real property statutory frameworks, that already decode and prioritise registrable interests in land. Importantly, an instrument such as an easement reflects an appropriate interest for the Crown to hold in private property; comparatively, this is more reasonable than the alternative means by which the Crown may control private land, either by resumption of the property via compulsory acquisition, or the above-discussed restrictions as part and parcel of planned retreat.

Easements may be granted through statute, with the only restriction in their substance being that they must not confer proprietorship or possession of the land (Butt, 2009). The Crown is exempt from the usual rule that easements *in gross* are not qualified easements, although for present purposes this may not be a necessary exemption given that in almost all relevant cases the servient land will be adjacent to a parcel of dominant Crown land, (being the foreshore land seaward of a private property boundary). Relevantly, an easement *in* gross is an easement which has been granted without an existing or defined dominant tenement (see Butt, 2009). There may however be instances where the beach is owned by private landowners.

An easement would effectively allow for the Crown's use and enjoyment of the land the subject of the easement. Rolling easements have been proposed and considered in detail as appropriate adaptive instruments in the event of coastline erosion (see EPA, 2011). In line with a Public Trust approach, and utilising a similar methodology as is used in the doctrines of accretion and diluvion, an easement could be gradually held over the seaward portion of private land, encroaching further landwards where the geography of the land changes and the property is affected by erosion.

Consideration must be had as to the methodology for triggering the grant of an easement over vulnerable land; a future date may be set, with the lapse of time acting as the catalyst for grant, or otherwise in response to a biophysical indicator, such as the movement of the Mean High Water Mark ("MHWM") or measurements of the wet sand portion of the beach to indicate how far landwards the sea has encroached. A time-lapse trigger date would provide certainty for landowners, prospective purchasers and developers, however the period would be set in consideration of predicted coastline rescission measurements, which are far less responsive to actual change than physical, survey-based indicators (O'Donnell and Gates, 2013). If the state is to prioritise responsive adaptation, biophysical indicators are a clear preference.

A rolling easement mechanism provides fair warning to the reasonable land owner that their land will be impacted by coastline erosion, and that their property will be subject to restrictions on this basis. Easements are commonly used at present in dealings with land, and as such, the rolling system can be incorporated seamlessly into an already well-established process of notifying prospective purchasers and interested parties of an interest in land. Adequate preparations can thus be made without significant uncertainty or exorbitant cost to the government in compensation for property loss.

A statutory easement scheme could involve a system of just compensation provided to owners of land now servient to an easement of the state. This would compensate duly for the inability of these individuals to protect their properties with hard engineering structures on the seaward boundaries of land, as well as compensation for the now public right to use and access the easement on their land.

A less rigorous implementation would see the doctrines of accretion and diluvion expanding to incorporate an easement scheme beyond the land already silently transferred to the state, and may be triggered by either the aforementioned biophysical indicators, or else changes in title such as in the subdivision of land (O'Donnell and Gates, 2013; see particularly the case studies outlined at p 234). This could operate either as a mechanism for implementing the Public Trust Doctrine, or an additional ribbon of land slightly landward of Public Trust Land.

Implementation of a rolling easement scheme would act in line with the principles of the Trust Doctrine, and would constitute an effective retreat from eroding coastlines. Despite community resistance to retreat schemes, this mechanism could allow for the compensation of landowners, whilst also allowing for adequate preparation and notification of the compulsory easement. The scheme would be less influenced by transient local governments who may otherwise have difficulty in implementing long term planned retreat programs, and would be far less costly than the alternatives of compulsorily acquiring vulnerable properties and constructing kilometres of seawalls.

5.4. Coastal Management Strategies

Councils often have difficulty in creating appropriate management plans for coastal lands due to the difficulty in accessing adequate information and management strategies for considered decision making. It has been stressed that a coordinated approach in response to coastal erosion is paramount (Gordon, Lord and Nolan, 1978; see also *Parkes v Byron Shire Council* [2003] NSWLEC 237), and without appropriate information accessible to Councils, long term policy and strategy suffers under changes in Council composition.

6. STATUTORY IMPLEMENTATION AND MANAGEMENT OF THE PUBLIC TRUST DOCTRINE

Earlier sections of this paper have identified examples of the means by which the Doctrine might be implemented into Australian law. To effectively enliven it, however, a governing statutory framework would be of assistance.

The Doctrine should be responsive to the needs and values of a community. The purpose of designating lands as Trust Lands is in recognition of their public value, and their need for protection within intersecting coastal protection regimes. The regulation in this context acts to govern who can use and access land, as well as the measures which are allowed for the protection of the public and private lands within coastal communities.

For this to occur, consultation with public stakeholders is integral, as is the appropriate forums for communication, review and implementation. Councils require significantly more information than is currently available on the best strategies for coastal management. Reference materials such as management manuals, as well as advice from expert coastal panel authorities are necessary instruments for effective decision making for both individual development matters, as well as the development of regional strategy and CMPs.

Conclusions

The prospect of increased sea level rise creates an urgency in the formulation of adequate coastal management strategies. Australian communities value the free and public access to our extensive coastlines, and as such, valuable public assets ought to be protected for future social use and financial posterity. This paper argues for an Australian-adapted Public Trust Doctrine, with the objective of preventing the privatisation of coastlines where public shores are inundated, and suggests a range of mechanisms by which this may be implemented.

A broad goal of planned retreat is a positive and aspirational policy position for local and State governments to guide subsidiary, detailed plans and decisions. Land is not designated by way of retreat, but rather, planned retreat is an overall policy position that runs parallel with the objectives of the Doctrine. Planned retreat, however, is difficult to implement, and requires more specific guidance from expert bodies, as well as supporting legal mechanisms to implement.

The doctrines of accretion and diluvion are already in place, and are codified further in the New CMA (see *Coastal Management Act 2016* (NSW) s 28), as a way to determine the boundary line between public shores and private properties. This system designates land beyond a biophysical marker (the MHWM) as Crown Land, which is deemed transferred to the State, rather than acquired or purchased. Accretion and diluvion are future-focused doctrines as they respond to changes as they occur, without having to rely on the current predictions of future shorelines to indicate coastline oscillation.

Easements, specifically rolling easements, are a flexible Real Property instruments which may be employed as a system to identify Public Trust Land. The rolling easement would provide notification to the reasonable landowner that their land was subject to predicted coastal erosion. This scheme is advantageous as it is less costly than actual acquisition (although compensation could, and may still be provided to a lesser extent), is receptive to actual change in sea level if measured by biophysical markers rather than time periods, and is a reasonably familiar legal concept, as easements in favour of the State are commonplace. The easement could be used as an alternative mechanism to identify Public Trust Land onshore, or as an additional landward buffer between designated Crown Land (as per the doctrines of accretion and diluvion) and the private land that it borders.

Information regarding management strategies, extensive community consultation and consistency of policy are all necessary features of coastal management policy, and any statutory framework which enlivens the Doctrine should have regard to each. Proposed changes to coastal management legislation and policy should seek to rectify current deficiencies in information accessibility, so as to fulfil the objectives of the Doctrine in reserving valuable community land for the use and enjoyment of the public.

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