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Legal Issues in the Design and Implementation of Environmental Offset and Environmental Trading Frameworks

By Rowena Maguire¹

Introduction

The Queensland Government released its new *Environmental Offset Policy* in July 2008. This policy creates a set of overarching principles which are to be incorporated into existing environmental offset policy. This article is the final article in a set of three interrelated articles discussing the operation and implementation of environmental offsets in Queensland. The first article² discusses the *Environmental Offsets Discussion Paper* and the existing environmental offset requirements. No significant changes have been made to these existing offset requirements under the new *Environmental Offset Policy*. This article also touches briefly on the legal issues associated with design and implementation of environmental offset and trading frameworks. The second article³ considered the compatibility of different land tenure arrangements in Queensland against the requirements for the creation and trade of environmental offsets. The third article being the present article, discusses the application of the new *Environmental Offset Policy* while also analysing the legal issues associated with environmental offsets in further detail.

The New Environmental Offset Policy

The *Environmental Offset Policy*⁴ released in July 2008 is an overarching set of principles and guidelines to be used in the creation of environmental offsets in Queensland. Existing individual environmental offset policy exists for vegetation management, koala habitat and marine fish habitat. It is anticipated that these existing policies will be amended to be compatible with the principles and guidelines of the Environmental Offset Policy.⁵

The Environmental Offsets Policy contains seven key principles. These are⁶

1. Offsets will not replace or undermine existing environmental standards or regulatory requirements, or be used to allow development in areas otherwise prohibited through legislation or policy;

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² Rowena Maguire, 'Environmental Offsets in Queensland: New Mechanisms for Managing Natural Resources' (2007-2008) 13 (61) *Queensland Environmental Practice Reporter* 160.

³ Rowena Maguire, 'The compatibility of Freehold and Leasehold Tenure Arrangements with Environmental Offset and Trading Initiatives' (2008-2009) 14 (63) *Queensland Environmental Practice Reporter*, 1.

⁴ Environmental Protection Agency, *Queensland Government Environmental Offsets Policy* (2008) Queensland Government <http://www.epa.qld.gov.au/publications?id=2501> at 9 July 2008.

⁵ *Ibid*, 8.

⁶ *Ibid*, 11-12.

2. Environmental impacts must first be avoided, then minimised, before considering the use of offsets for any remaining impact;
3. Offsets must achieve an equivalent or better environmental outcome;
4. Offsets must provide environmental values as similar as possible to those being lost;
5. Offset provisions should minimise the time-lag between the impact and delivery of the offset;
6. Offsets must provide additional protection to environmental values at risk, or additional management actions to improve environmental values; and
7. Offsets must be legally secured for the duration of the offset requirement.

The policy provides a number of alternatives for the provision of environmental offsets. Proponents who are required to provide an offset may: provide the offset themselves, engage a third party (landholder or environmental group) to provide the offset, purchase offset credits from suppliers or provide a financial contribution to an offsets fund.⁷ This means that most environmental offsetting activities under this policy will occur retrospectively. In practice this means that development approval may be obtained on the basis of provision of environmental offset that is not yet in existence. Furthermore if the form of the offset is a financial contribution, the policy should be amended to ensure that all aspects of this transaction are transparent and that the funds received are directed towards to their anticipated purpose.

The policy uses the term “package” to recognise the situation where one parcel of land is used to generate more than one type of environmental offset (for example vegetation and koala offsets).⁸ The policy also suggests that certain land may be eligible to generate offset credits under both State and Federal environmental offsetting schemes.⁹ At this stage no Federal environmental offsets scheme exists¹⁰ so this package option is not yet operational.

The Environmental Offsets Policy does not make any significant change to existing environmental offset practices in Queensland. It simply draws together a set of principles to be considered in the creation of environmental offsets in Queensland. No substantial changes were made to existing environmental offset frameworks. The current arrangements for environmental offsets therefore still operate under three separate regimes.

Legal Issues Associated with Environmental Offset and Trading Programmes

A number of legal issues arise in the creation of environmental offsets. These include:

- Issues related to permanence of the offset;
- Issues related to additionality concerns;
- Issues related to double-counting; and
- Issues related to the governance of offset regulatory frameworks.

⁷ Ibid, 13.

⁸ Ibid, 14

⁹ Ibid, 9.

¹⁰ See section 10.1 of this report for further information on the Federal Scheme.

Permanence Issues

Permanence requires continuance in the same state or place.¹¹ There are two separate permanence issues:

- 1) Natural environmental change: the environment will not perpetually remain in the same state or condition; and
- 2) Environmental offset security: once an environmental offset has been created the offset must be recognised by the law in order to prevent incompatible land use in the offset area.

Environmental Change

The provision of environmental services can never be stable or fixed in nature. The environment has natural cycles that change over time and that are susceptible to change. During different periods, the quantity and quality of the provision of environmental services will vary. At the international level, the changing nature of the environment has been vigorously debated in relation to the creation of forestry carbon credits.¹² Carbon credits (certified emission reduction credits) are issued on the basis that the activity for which they have been issued will contribute to the reduction of carbon and other substances in the atmosphere. The natural processes associated with forest carbon sequestration present a challenge for their inclusion in emission reduction trading frameworks. This is because during certain periods forests act as sequesters of carbon but during other periods forests act as emitters of carbon.¹³

The challenge is not so significant for environmental offset programmes, because these programmes seek to replicate the natural cycles of environmental services. Difficulties may still arise where there are unexpected events such as severe fire, severe drought or severe storm conditions. These may have a substantial impact upon the provision of environmental services.¹⁴

Offset Security

All environmental offsets created and issued must also be secure in perpetuity. In order for an offset to be secure, there must be secure land rights over the area where the offset is created, and the offset must also be recognised at law. Permanence requires that the life of the offset is the same as the life of the development. For example, if a development occurs in a forested area and an offset is created, the area

¹¹ Webster Dictionary, *Definition of Permanence* (2008) <http://www.webster-dictionary.net/definition/permanence> at 8 May 2008.

¹² United Nations Framework Convention on Climate Change, *Reducing emissions from deforestation in developing countries: approaches to stimulate action*, (2008) Subsidiary Body for Scientific and Technological Advice, <http://unfccc.int/resource/docs/2008/sbsta/eng/misc04.pdf> at 27 June 2008.

¹³ Catharina Schulp, Gert-Jan Nabuurs, Peter Verbug, 'Future carbon sequestration in Europe- Effects of land use change' (2008) 127 *Agriculture, Ecosystems and Environment* 251.

¹⁴ It has been suggested that to deal with intentional or unforeseen losses of credits that either an insurance pool is created by the offset framework or private insurance is taken out by the participants in the offset scheme. See Paul Curnow, Louisa Fitz-Gerald, 'Biobanking in New South Wales: Legal issues in the design and implementation of a biodiversity offsets and banking scheme' (2006) *Environmental and Planning Law Journal* 298.

over which the offset has been created must be legally recognised so that the offset area is not then developed.

In order to legally secure the offset, the legal system must in some form recognise the offset. Determining how the offset is recognised will be dependent upon the framework creating the offset. There are two general approaches used in the implementation of environmental offset and trading frameworks.

Firstly, there are frameworks which utilise existing legal mechanisms to enforce the legal rights and obligations associated with offset creation. Under this approach, contract law is utilised to create rights and obligations for all parties involved in the transaction. In order to improve the long term security of the offset, the offset should be registered with an existing registry (quite often the land registry).¹⁵ Once an interest is registered on a land title register, legislative protection will be afforded to the right, and the right is enforceable against the current land holders and all future land holders. The level of protection afforded will be dependent upon the nature of the registration.

The second offset framework creates a central registry where all offsets created under the programme are registered. This registry may or may not be linked to other registries, such as the land registry. An example of this approach is the Biodiversity Banking Scheme that been introduced in New South Wales.¹⁶ This scheme has been created through legislative reform¹⁷ and provides participants of the scheme with legislative rights to enforce all participants' obligations and rights.¹⁸ The scheme allows participants to register their biodiversity offsets on the land registry in addition to the biodiversity banking registry.¹⁹

A number of legal mechanisms exist which could be used to register environmental offsets on the land registries.²⁰ These include -

- Profit a prendre;
- Covenant;
- Other Rights: Forest Property Agreements;
- Advanced Offset Facility.

A “profit a prendre” is a right obtained by a third party to remove something from another's land.²¹ This right confers a right to enter and a right to remove something

¹⁵ For example wetland mitigation credits in the United States of America are protected by registering an easement over the bank (offset) site. In Victoria, a Forest Property Agreement can be registered on the land registry. For further information see Australian Greenhouse Office, *Planning Forest Sink Projects: A guide to Legal, Taxation and Contractual Issues* (March 2005).

¹⁶ See *Threatened Species Conservation Act 1995* (NSW) see Part 7A Biodiversity Banking, Division 9 Registers.

¹⁷ See *Threatened Species Conservation Amendment (Biodiversity Banking) Act 2006* No 125 (NSW)

¹⁸ The particulars of the New South Wales Biodiversity Banking scheme are examined in more detail in section 10 of this report.

¹⁹ *Threatened Species Conservation Act 1995* (NSW) s127ZZB

²⁰ For a discussion of other instruments such as leases, easements and mortgages see Justine Bell, ‘Can the Torrens System Adapt to Ecologically Sustainable Development?’ (2007/2008) 13 62 *Queensland Environmental Practice Reporter* 218 and Australian Greenhouse Office, above n 15, 66-68.

²¹ Law Book Company, *Property Law/ Land Titles Law and Practice (Qld)*, Division 4B – A Profits a Prendre [6.17950].

from the land.²² In order for this right to be created, an agreement is entered into between the landowner and the person interested in obtaining an interest on a product of the land. The agreement will specify the rights of removal and other obligations associated with this type of interest. This type of interest in land has been held to be a legal interest in land.²³ A profit a prendre can be registered on the *Queensland Land Titles Register* which creates a legal interest in the land and hence the benefits of indefeasibility.²⁴

In order to create a profit a prendre there must be: a grant of a specified interest, given to a specified person, for specified consideration and the action of taking (prendre) must also be present.²⁵ Profit a prendre agreements have been used to provide holders of carbon credits (generated from forest activities) an interest in the land.²⁶ On a strict interpretation, however, holders of carbon credits do not have a right to remove something from the land; rather they have a right to the payment for a service that the environment performs (i.e. carbon sequestration). Conceptually, holders of environmental offsets will also, not have a right to remove something from the land (for example biodiversity), but will also have a right to payment for a service that the environment performs.²⁷

A covenant is an agreement which restricts or requires that certain activities be carried out upon land. The person undertaking to comply with the agreement (the covenantor) agrees to certain conditions of use upon their lot. The person who obtains the benefits of the agreement is known as the covenantee.²⁸ In order to create a covenant, the following requirements must be satisfied. The covenant must²⁹

- a) relate to the use of : i) a lot or part of a lot, or ii) a building, or building proposed to be built, on the lot or
- b) be directly aimed at preserving: i) a native animal or plant, or a natural or physical feature of the lot that is of cultural or scientific significance and
- c) Must ensure that upon transfer that the covenant continues.

An environmental offset may meet the above requirements. An environmental offset relates to the use of lot, by requiring that certain requirements are complied with in relation to the ongoing management of the area where the offset is created. The term “directly aimed at preserving” in many cases will be consistent with the objectives of environmental offset initiatives. However, in some instances, the purpose of the offset may not be to preserve, but rather to enhance or provide a functional lift in the

²² Ibid.

²³ *R v Toohey* (1983) 158 CLR 327 at 352

²⁴ *Land Title Act 1994* (Qld) s97E and Law Book Company, *Property Law/ Land Titles Law and Practice (Qld)*, Division 4B – A Profits a Prendre [6.17971]

²⁵ Law Book Company, *Property Law/ Land Titles Law and Practice (Qld)*, Division 4B – A Profits a Prendre [6.17974]

²⁶ *Forestry Act 1959* (Qld) s61 J (5), also see *The Natural Resources and Other Legislation Amendment Bill 2004* (Qld) which amends a number of acts specifically to recognise the creation of profit a prendre arrangement on freehold and leasehold land.

²⁷ Two other commentators note this conceptual difficulty see: Curnow and Fitz-Gerald, above n 14 and Australian Greenhouse Office, above n 15, 66-68.

²⁸ Law Book Company, *Property Law/ Land Titles Law and Practice (Qld)*, Division 4A Covenants [6.17764].

²⁹ *Land Title Act 1994* (Qld) s97A (3)

quality of the environmental service creating the offset. In Western Australia, interests relating to carbon rights are registered as a covenant.³⁰ A working group published a report in 2003 advocating the use of covenants for environmental purposes.³¹

Environmental interests do not necessarily conceptually align with traditional common law definitions of covenants and profit a prendre. However, legislative intervention could provide that certain environmental interests (i.e. an environmental offset) are suitable to be registered as a covenant or profit a prendre. This will then override the common law requirement, and as such the conceptual difficulties will be overcome.

Some of the States in Australia have dealt with this issue, by instead creating a “new interest” in land that can be registered on the title.³² Victoria and South Australia allow for the creation of *Forest Property Agreements* which include rights to plant, maintain and harvest forest property (which includes carbon sequestered by trees). These agreements can then be registered on the land registry, which allows the owner of the forestry right to enforce contractual obligations concerning the forestry right. The registration of this interest in the land also allows the owner of the right to enforce these contractual obligations against future owners of the land.³³

Previously, the Queensland land registry did not allow for environmental offsets or bank sites that have been restored, but not yet purchased by a third party to be registered on the land title. However, under the *Environmental Offsets Policy*, these types of offsets can be registered on the title as an “advance offset”. Advance offsets provide an opportunity for a person or entity to create a supply of offsets for potential future use, transfer or sale. Advance offsets may then be sold in whole or in parts.³⁴ This amendment will operate to give legal protection to areas upon the meeting of relevant standards which will then ensure that incompatible land use does not occur upon the area.

Additionality Issues

“Additionality” is a principle of trading frameworks that requires that something has taken place, which otherwise would not have taken place. Specifically in the environmental offset context, the creation of the offset must be additional to standard practices.³⁵ Environmental offset creation occurs when there are practices that go

³⁰ Australian Greenhouse Office, above n 15, 65.

³¹ Queensland Government Department of Natural Resources and Mines Statutory Covenants Working Group, *Statutory covenants: guidelines for their use in Queensland* (2003).

³² Sandra Eckert, Richard McKellar, ‘Securing Rights to Carbon Sequestration: The Western Australian Experience’ (2008) (Winter) *Sustainable Development Law and Policy* 30

³³ Australian Greenhouse Office, above n 15, 59-61.

³⁴ Environmental Protection Agency, above n 4, Appendix A: Advance offsets.

³⁵ Additionality in the carbon context involves a number of different types of additionality.

Programme additionality, which requires that emission reductions are additional to emission reductions required by law or government. *Financial additionality* is the requirements that funding for the implementation of projects must not come from overseas development or environmental assistance funds. And *investment additionality* is where a project might justify additionality by showing that the creation of carbon offsets will involve costs that would not be incurred in the business

above and beyond business-as-usual. The rationale behind this is that parties should not be rewarded for completing the bare minimum. Rewards or incentives should be provided to parties who surpass current obligations.³⁶ Environmental trading programmes will need to demonstrate that environmental offsets exceed existing Development Approval requirements. For example, if legislation requires the payment of funds to a research body, as part of the Development Approval, this activity can then not be used to provide an offset. The offset activity must go beyond existing legislative requirements in order to improve or maintain a certain environmental standard.

Double-counting Issues

Issues related to double-counting arise in two circumstances. Firstly, if competing schemes exist for offset activities. A landholder may attempt to get recognition under both schemes and this may prevent an overall gain of environmental services. This would mean that the party could receive a number of incentives or cash payments for carrying out a single activity. In order to overcome this situation, participants should be required to sign an acknowledgment form. This form will require the parties to state that this area has not already been used to create environmental offsets of the kind being provided under this scheme. In the event that a party is found to have gained recognition from two environmental offset schemes a penalty, and or sanction should be imposed upon the participant.³⁷

Secondly, one parcel of land may be used to generate many different types of environmental offsets. For example, if a forest area is established, this area will provide many environmental services such as: biodiversity services, carbon storage, water purification services and soil health improvement. Should the landowner be able to create individual credits for each individual environmental service provided for by the establishment of the forest? The answer depends on the scientific soundness of rewarding these competing environmental services, most likely recognised and measured in forms of functional lift.³⁸

as usual scenario. See Peter Minany, Hans Bressers, Margaret Skutsh, Michael McCall, 'National forest policy as a platform for biosphere carbon management: the case of community forestry in Cameroon' (2007) 10 *Environmental Science and Policy* 204 at 206.

³⁶ This is sometimes called *Payment for Ecosystem Services*, see Nigel Asquity, Maria Vargas, Sven Wunder, 'Selling two environmental services: in kind payments for bird habitat and watershed protection in Los Negros, Bolivia' (2008) 65 *Ecological Economics* 675, see additionality discussion at 680.

³⁷ See discussion on double counting issues relating to international carbon market under the clean development mechanism: United Nations Framework Convention on Climate Change, *Input to UNFCCC on double counting and methodological issues*, (2005) http://cdm.unfccc.int/public_inputs/meth_double_counting/DC4_Inputs_DoubleCounting_MA_SS.pdf at 27 June 2008.

³⁸ Asquity, Wunder, above n 36, for a discussion on the benefits of creating two environmental services on the one area of land.

Governance Issues

There are a number of issues related to overall governance of offset environmental regulatory frameworks. These include issues related to-

- provision of standard definitions and concepts;
- provision of appropriate methodologies to calculate offset;
- stakeholder engagement;
- transparency and accountability of the programme; and
- appropriate monitoring and verification of offset and trading initiatives.

Definitions

Environmental offset and trading frameworks must be based upon standard definitions and key concepts. Defining key terms such as environmental offset, legal security, and management plans, will be crucial in establishing a framework that is able to operate effectively. Frameworks that fail to provide standard definitions at the commencement of the scheme will produce uncertainties and confusion as to the purpose and role of the scheme.³⁹

Methodologies

A major criticism of environmental banking models has been levelled at the techniques used in determining the value of a credit or offset. Offset methodologies are generally not clearly stated. This is most likely attributable to the fact that no generic method exists for measuring all types of environmental values. Perhaps such a generic method will never exist due to structural complexities of evaluating the earth's natural cycles. This has led to debate about the value of creating mitigation sites. It has been suggested that without an adequate methodology, that development will continue to occur in areas with high ecological significance, and this will be offset on land that is little ecological significance.⁴⁰ Hence the overall objective of "no net loss" of ecosystem services not being achieved.

Wetland mitigation methodologies are the most advanced means to examine outcomes. These have been in evolution since 1970.⁴¹ The wetland mitigation scheme in North America states a preference for offsets to provide "*at a minimum a 1 for 1 functional replacement*".⁴² However, in the absence of methods which can accurately

³⁹ A major issue for the inclusion of forest-generated carbon credits was based on conceptual challenges. Standard definitions did not exist for forest, deforestation, afforestation, and reforestation. In order to incorporate forest-generated carbon credits into the trading regime, these definitional issues had to be addressed. See Patrick Graichen, 'Can Forestry Gain from Emissions Trading: Rules Governing Sink Projects under the UNFCCC and the EU Emissions Trading System' (2005) 14 (1) *Review of European Community and International Environmental Law* 11.

⁴⁰ Royal Gardner, 'Money for nothing? The Rise of Wetland Fee Mitigation' (2000) 19 *Virginia Environmental Law Journal* 1 and Morgan Robertson, 'The neoliberalization of ecosystem services: wetland mitigation banking and problems in environmental governance' (2004) 35 *Geoforum* 361.

⁴¹ Bruce McKenny, *Environmental Offset Policies, Principles and Methods: A Review of Selected Legislative Frameworks* (2005) Biodiversity neutral initiative <http://www.forest-trends.org/biodiversityoffsetprogram/library/new/Environmental%20Offset%20Legislative%20Frameworks%20DRAFT%20March%2030.pdf> at 19 June 2008 at 58.

⁴² *Ibid* at 38.

calculate the functions and values of wetland, “a minimum 1 to 1 acreage replacement may be used as a reasonable surrogate”.⁴³ The one acre for one acre approach is more straight-forward to use and therefore is often utilised over the functional replacement method in wetland mitigation schemes.⁴⁴

Another option is to create individual “tailored” methodologies, which seek to compensate for impacts to unique or important wetland types and or large wetland areas. This approach has also proven to be popular.⁴⁵ The acre to acre method and individual tailored measures are, however, work-around approaches. These are being utilised in the absence of scientifically sound and publicly endorsed environmental offset methodology.

Mckenny⁴⁶ categorizes existing wetland methodologies into three classes:

- 1) Methods to measure ecological functions/values: this approach assesses the ability of wetland to produce specified goods and services;
- 2) Methods which measure ecological conditions/integrity: this approach aims to measure the ecological conditions and biological integrity of a wetland rather than functional capacity; and
- 3) Methods which measure landscape context: this approach characterises land uses and the distribution and abundance of wetland types throughout an area.

All existing wetland methodologies attract criticism and very few are actually used.⁴⁷ These methodologies are criticised on practical grounds, because they take time and can increase transactional costs. Each method has also attracted criticism on technical grounds, and not one method has received universal acceptance.⁴⁸ As such, there does not appear to be a preferred method of assessment. It seems that an individual tailored approach, utilising existing relevant methodologies may be the best approach, until further work is carried out in this area. The Institute of Sustainable Resources at the Queensland University of Technology is now investigating such approaches in suitable field situations with due attention to the appropriate environmental metrics.

Stakeholder Engagement

In order for environmental offset and trading initiatives to receive wide take-up and implementation there must be appropriate stakeholder engagement. The stakeholders involved in environmental trading and offset creation include-

- government agencies who require the provision of offsets;

⁴³ Ibid at 38.

⁴⁴ However not all wetland areas are created equal, so this approach does not ensure that ecological services performed by wetland areas are not lost. See Dustin Edwards, ‘Wetland Mitigation Banking: Is the current system beyond repair?’ (2003) 16 (Summer) *Tuland Environmental Law Journal* 445 and Christopher Mill, ‘Incentives and the ESA: Can Conservation Banking Live up to Potential?’ (2004) 14 *Duke Environmental Law and Policy Forum*, 523.

⁴⁵ McKenny above n.41, 38.

⁴⁶ Ibid, 61-62.

⁴⁷ Ibid, 66.

⁴⁸ Ibid.

- parties obligated to provide an offset (often developers but perhaps increasingly farmers);
- parties who create and manage environmental offset areas;
- agencies who create environmental offset standards and requirements;
- independent verification and monitoring bodies who ensure that requirements are met; and
- government bodies responsible for registering the interests that environmental offsets create.

All stakeholders need to understand their role in the provision of environmental offsets. Government, regulatory and verification bodies will be the parties who educate the participants about their rights and obligations. Participants, who are obligated to create the offset, will become aware of offset requirements as part of their development approval process. However, there may be some groups who decide to voluntarily offset their development and who will require information on how this can be achieved. This group which will require initial out-reach and education which informs them of the benefits associated with participating in environmental offset and trading programmes.

The second group that will require initial outreach and education will be landholders and entrepreneurial investors who wish to set up environmental bank sites in order to generate income. These participants require information about the environmental and ecological benefits associated with environmental offset schemes. Mechanisms must be created which will provide information on the benefits of environmental offset and trading initiatives to these parties.

Transparency and Accountability

It is crucial that environmental offset schemes are transparent. Transparency requires that the procedures according to which decisions are based on are as open and as clear as possible.⁴⁹ This will require making all information about the environmental offset process publicly available. The types of information that should be made available include: information and data used by regulators in the formation of the scheme, information about individual offset rights and responsibilities, information about the practical operation of the whole scheme, and general information about environmental offsets.⁵⁰ This will go towards ensuring that environmental offset operations are seen as legitimate and accountable by participants and the general public.

Monitoring and Verification

To ensure that environmental offset and trading initiatives deliver on the objective of *no net loss of ecological services and eventual gain of ecological services*, on-going monitoring of the scheme will be needed. This will require a regulatory body to carry out routine inspections. The parties should also submit reports at regular intervals outlining how the parties have satisfied their legal obligations. There should be sanctions in place for parties who do not meet their legal obligations.

⁴⁹ Douglas Fisher, 'Markets, water rights and sustainable development' (2006) 23 *Environmental and Planning Law Journal* 100, 104.

⁵⁰ Douglas Fisher, *Implementing the National Water Initiative: A generic set of arrangements for managing interests in water*, (2006), 19.

The verification of environmental offsets should be carried out by a third party. This independent third party should have been through an auditor accreditation process to ensure that they are appropriately qualified to verify the existence of environmental offsets. This independent verification will give greater accountability to environmental offset and trading initiatives.

Conclusion

The issues raised in this article will require full consideration, should the Queensland Government decide to implement an overarching environmental offset framework, as oppose to a policy instrument outlining generic offset principles. The current environmental offset framework in Queensland does not holistically deal with a number of the issues raised by this paper. In relation to permanence considerations, existing individual environmental offsets do not adopt a consistent approach in relation to defining offset security. Additionality a key principle of most major operational environmental market mechanisms requires further recognition and discussion within all existing offset policies. This concept is important as it is the means for rewarding parties who exceed existing obligations. Double counting issues must also be resolved to ensure that parties are not obtaining incentives under competing environmental market schemes. In relation to the governance issues discussed in the paper, stakeholder engagement will be crucial for the future implementation and success of the Environmental Offset Policy.

The discussion paper on environmental offsets envisaged the creation of an entity entitled Green Invest. This body was to be responsible for implementing the offset policy. Envisaged responsibilities included the administration of an offset registry which could be used to determine the number and location of all environmental offsets in Queensland and the provision of a brokering service between developers and offset providers. Had this entity come to fruition it is more likely that a number of the issues raised by this article were addressed. Environmental offset initiatives have the potential to deliver significant environmental benefits, while providing economic incentives to relevant parties. Hopefully the environmental offset framework in Queensland will continue to evolve and during this evolution address a number of the issues raised by this article.