ENHANCEMENT SUBDIVISION AND TRANSFERABLE DEVELOPMENT RIGHTS

Prepared for the Biodiversity Collaborative Group

David Serjeant, February 2018

EXECUTIVE SUMMARY

This paper responds to a brief issued by the Biodiversity Collaborative Group for the provision of planning and ecological advice on the utility and risks of enhancement subdivision/TDRs as a tool for biodiversity management and the potential for the NPS Biodiversity to provide direction on their use.

The paper has reviewed TDRs in the context of biodiversity gains, the drivers for the process of TDRs, the principles for successful TDR processes, and the strengths and weaknesses of some of the existing TDR processes in New Zealand. The ultimate question posed in the brief is whether it would be useful for the NPS Biodiversity to provide guidance on the use of TDRs in district plans? While noting that a prerequisite for the TDR process is an active rural subdivision market, which does not exist in all parts of New Zealand, it is nevertheless consistent with the New Zealand Biodiversity Strategy 2000-2020 to adopt all available measures to maintain and enhance biodiversity. Consequently, it is considered that TDR processes can play an important part in the implementation of national biodiversity policy.

To be effective TDR processes need to incorporate the following characteristics and features:

Recognition of significant ecological areas. This is a principle of any TDR process. It is understood that criteria for identifying significant ecological areas are likely to be included in the draft NPS, establishing a basis for nationwide consistency. The emergence of regional ecological corridors or landscape scale biodiversity management by regional councils is also part of this recognition and prioritisation process.

Emphasis on biodiversity, not subdivision. It is considered that the objective and policy framework of the district plan should emphasise that TDRs are about the protection of SEAs. This emphasis can be achieved through locating the protection provisions in the Natural Areas, or similar, section with clear objectives as to the overall outcome sought, the specific biodiversity targets or areas for protection and enhancement within the district, and the significance criteria to be adopted in pursuit of those targets.. The use of the TDRs, including the formal covenanting of the SEA can reside in the subdivision section.

The preference for certification. After weighing up the advantages and disadvantages of mapping versus certification it is considered that greater biodiversity gains can be achieved by providing for certification. However, for both protection of existing significant ecological areas and enhancement planting the utilisation of qualified and experienced persons is critical. District plans need to provide effective policies and standards for achieving the right biodiversity outcomes from TDRs.

Effective monitoring systems. The corollary to certification is that the monitoring systems of the local authority must be robust. The Resource Management Act 1991 provides the legal authority for this monitoring to occur. It is incumbent on the local authority to use its powers, at the cost of the consent holder, to ensure that the requirements of the consent and related covenant are met on an ongoing basis.

Minimising transaction costs. The NPS should include a general policy on minimising transaction costs. The implementation of efficient processes will reside with the local authority however, the staging of donor and receiver processes, the maintenance of an on-line register of titles, and appropriate activity status will all assist in minimising transaction costs.

Limits on in-situ conservation lots. In-situ subdivision based on conservation lots may have adverse effects, particularly in circumstances where these lots are located within the SEA. Limits on the numbers of such lots are necessary to support a successful TDR process.

INTRODUCTION

1. Transferable development rights (TDRs) have been defined by Higgins (2004) as a market-based mechanism that encourages the voluntary transfer of development from locations where a community supports restrictions on land use (referred to as sending areas) to places where a community would like to see development enabled (referred to as receiving areas). The sending areas may be environmentally sensitive properties, open space, wildlife habitat, historic landmarks or any other places that have value to a community but are typically not a market commodity. The receiving areas are considered appropriate for extra development due to their proximity to jobs, shopping, schools, transportation and other urban services.
2. In the United States, TDRs have been utilised for about 50 years. In 1968, New York City approved the Landmark Preservation Law, which incorporated TDRs for heritage preservation. In nearby New Jersey, the preservation of that state's pinelands is often referenced as a successful application of the instrument for biodiversity outcomes. New Jersey state legislation in the 1980s provided for TDRs, which have led to the protection of 25,000ha of pinelands. Internationally, the instrument has been used for the protection of both cultural and natural heritage.
3. TDRs are currently utilised in New Zealand to achieve a range of environmental outcomes, as will become apparent with the examples below. However, this report has a specific focus on biodiversity. The brief seeks responses on the following topics:

- The effectiveness of enhancement subdivision and TDRs as a method in district plans for protecting, managing and enhancing biodiversity outcomes. Enhancement in this context includes both protection of existing biodiversity as well as planting to restore, enhance or extend areas of existing biodiversity;
- The main elements of effective district plan provisions for enhancement subdivision and TDRs;
- The potential benefits of a National Policy Statement for Biodiversity in providing guidance on the use of TDR provisions in district plans, and the nature of this guidance, including a region-wide approach to recognising and managing biodiversity; and
- Observations on the current and potential future provisions for TDRs in maximising the benefits to biodiversity.

THE CONTEXT OF TDRs and BIODIVERSITY

4. Before addressing these topics, it is considered useful to examine TDRs in the context of biological diversity (biodiversity) outcomes and the loss of ecological services. Ecological services have been formally recognised worldwide for more than 25 years. The international Convention on Biological Diversity (CBD) was ratified in 1992, and adopted by New Zealand in the following year. The convention affirmed that biodiversity has intrinsic values (ecological services) in addition to instrumental values (economic productivity). The world has been facing the loss of ecological services at an increasing rate as the resources supporting these services are exploited for human use and economic activity. Declining ecological services, along with global warming and freshwater scarcity, have been considered symptomatic of the world economy's exploitation of its remaining natural resources (Millenium Ecosystem Assessment, 2005).
5. The CBD (1992) committed its parties to identify and monitor biodiversity and to devise and implement national strategies for its conservation. Since habitat loss is the main threat to biodiversity, these strategies primarily sought to restrict land use change in areas of conservation importance.
6. Over the last 30 – 40 years, various strategies have been employed to address the tension between development and conservation. Land zoning has been used internationally to direct development to areas of high agricultural potential and restrict land use in ecologically significant areas. Zoning approaches often provoke landowner opposition where restrictions on land use have led to a loss in land value and the perception of landowners that they are bearing a private opportunity cost for public benefits.
7. A persistent difficulty associated with declining ecological services is that they are not generally considered to be a marketable commodity. Some countries, notably those in South America, have created environmental service markets to finance and motivate conservation on private land. For example, the payment of a periodic rental fee by government to the landowner for the retention of forest that has carbon

sequestration or water supply area protection benefits. However, these market mechanisms are recognising carbon and water supplies not ecological services directly. As a result, ecological services are being undervalued.

8. In response to the CBD (1992), the New Zealand government prepared the New Zealand Biodiversity Strategy 2000-2020 (NZBS, 2000). The Strategy noted that although New Zealand has extensive significant ecological areas (SEA)[1] with formal protection, of the remaining such areas, most are on private land. These areas remain through the conscious choice of current landowners and their forebears, and are in need of ongoing protection. The Strategy identifies the ineffectiveness of traditional methods of protection, such as zoning of land and voluntary commitments. These include:

    - Difficulties in defining the meaning of "significant" in relation to ecological areas for protection;
    - Lack of clarity over the values to be protected;
    - Uncertainty over whether a regulatory or non-regulatory approach should be pursued;
    - Ineffective consultation with landowners;
    - Resourcing problems in local authorities; and
    - Unresolved issues relating to private property rights, community benefits and cost sharing.

    (NZBS 2000, p.37)

9. The Strategy also observes that many landowners currently manage SEAs and wish to be acknowledged for, and assisted in, their conservation endeavours. However, landowners often react negatively to land use restrictions imposed by zoning, therefore regulation is likely to be counterproductive and also risks losing many private "conservators" across the country.

10. In 2016, the New Zealand government's updated strategy was presented in the National Biodiversity Strategy Targets and Actions 2016-2020. This document has a target and related action point that:

    "Landowners are supported to protect more rare and threatened habitats and ecosystems" (National Target 10).

    "New Zealand will expand partnerships with whānau, hapū and private landowners by continuing to grow the network of kawenata (covenants) over private and Māori land to secure and support the stewardship of naturally rare and uncommon and formerly widespread, but now significantly reduced, ecosystems and habitats (QEII National Trust, Ngā Whenua Rāhui)." (Action 10.2)

[1] Whilst various terms are used in the literature, this report will refer to significant natural areas (SEA) as the term to describe the target areas for protection.

11. Existing voluntary protection schemes include those under Queen Elizabeth II Trust Act 1977, Nga Whenua Rahui, the Reserves Act 1977 and the Conservation Act 1987, which all provide for individuals to voluntarily set aside land for conservation purposes. Incentives to facilitate such voluntary protection of indigenous biodiversity on private land have been successful, however all of these schemes require ongoing funding for activities such as pest management and weed control.

COSTS AND BENEFITS: THE EFFECTIVENESS OF ENHANCEMENT SUBDIVISION AND TRANSFERABLE DEVELOPMENT RIGHTS

12. How enhancement subdivision and the TDR process operates can be explained in terms of the costs and benefits to the participants, both public and private. Ownership of property is often conceived as a 'bundle of rights'. Some of these rights, such as the right to use and occupy, will typically be seen as a private property right. The right to use the resources of the property may be limited by central or local government or third party rights, as provided for by the regulatory system. In the TDR process the property owner substitutes development rights over that part of the property with significant ecological value, or to be enhanced by indigenous planting that creates biodiversity value, for a separate title. For an in-situ subdivision, that title is used within the property. However, in a TDR transfer the title is sold to an owner of property in a location the local authority favours for development.

13. Private costs are incurred and benefits gained in the process as the protection is placed on the land. The title is generated and then transferred from donor to receiver. However, this transaction has potentially broader costs and benefits for the adjacent property owners and wider public. The costs and benefits can be considered in Table 1.

14. The costs and benefits in cells 1 to 4 are quantifiable and marketised in the sense that the market internalises the costs and benefits in the transaction. The value of the title is sufficient for the donor to want to protect the resource, and the subdivision benefit enabled by purchasing the title is sufficient for the receiver to pay the title price. When taken together it is apparent from these four cells that protection of the resource relies on the value of the title within the receiver area. If there is no value for the title within the receiver area the protection is unlikely to take place.

15. The costs and benefits in cells 5 to 8 are not quantifiable to the same extent. The neighbour of the donor will likely appreciate the permanent retention of the indigenous forest or wetland resource. The neighbour(s) of the receiver will probably have some measure of amenity loss through the creation of the additional lot. However, this cost can be mitigated through careful planning of the new house site and assessment criteria in the plan relating to the future subdivision in the receiver area. For the general public, the biodiversity gain is essentially costless (assuming that the process in cell 1 is fully user-pays and not a cost to the ratepayer).

16. Overall, Table 1 demonstrates the superiority of TDRs in terms of costs and benefits over other measures such as regulation (zoning), publicly funded protection by way of outright purchase or rental fees, and unrewarded voluntary protection.

Table 1: Transferable Development Rights: Costs and Benefits

Party	Cost	Benefit
Donor	1. Opportunity cost of development in favour of protection or planting, physical protection costs[1], transfer and legal costs	2. Creation of title
Receiver	3. Payment for title	4. Subdivision rights at least the equivalent value to title purchase cost
Adjacent Public (neighbours of donor and receiver)	5. Receiver neighbour – probable amenity loss through additional lot density	6. Donor neighbour – probable amenity gain through indigenous vegetation retention and no additional neighbour
General Public	7. Nil	8. Biodiversity gain

[1] Protection costs typically include fencing and weed and animal pest control with a requirement for recording protection activities.

PRINCIPLES FOR TRANSFERABLE DEVELOPMENT RIGHTS

17. As noted previously, TDRs have been in use for over 50 years. The environmental economics literature that provides a commentary on their strengths and weaknesses is now historic. Deriving from that commentary, some authors have compiled principles or guidelines that should be observed to ensure the success of any TDR process. One such compilation is that of Tripp and Dudek (1989).[2] These principles provide guidance to central and local government in establishing TDR processes. Some of the guidelines are administrative and relate to the design and implementation of the TDR process, while others relate to the natural area to be protected. The guidelines A. to G. below have been adapted to the New Zealand context.

    A. Legal Authority – A local authority must have the legal authority to generate the TDRs and to implement and enforce the TDR process. In New Zealand there is no question that such authority exists under the Resource Management Act 1991.

    B. Technical Capability – A local authority must have the technical capability to effectively manage the scientific, planning, and legal aspects of the TDR process. This includes the capacity to identify the resource that is to be protected and

[2] *Institutional Guidelines for Designing Successful Transferable Rights Programs*. James T.B. Tripp and Daniel J. Dudek. Yale Journal of Regulation Vol. 6 1989.

enhanced, and to certify that the resource has the requisite value to support the issuance of the TDR. Monitoring and compliance capability is necessary for the ongoing maintenance and protection of the resource value and the monitoring of the TDR transactions.

C. Evasion Proof – The TDR process must ensure that 'value' at both the donor end and the receiver end is maintained. This means that the resources generating the TDR must retain their value through maintenance and protection. If a protected resource was degraded over time, or could provide benefits that detracted from its quality, this would undermine its value as a protected resource and the effectiveness of the scheme. At the receiver end it means that the acquisition of a TDR is the only means by which a property owner is able to achieve an additional lot or a smaller lot size in the district plan (relative to the standard rules). If a property owner were able to achieve this outcome without a TDR then this would undermine the value of the TDR and the incentivisation to create them.

D. Clearly Specified Objectives – The district/regional objectives being pursued must be clear as to the nature of the resource that is to be attributed value. There must be a strong ecological basis establishing the significance of the resource. More broadly, the objectives must be clear that the TDR process is about biodiversity, not subdivision and land development, albeit that the market drivers recognised in Table 1 underpin the process.

E. Economic Value – The incentives to generate TDRs through protection and to buy them must exist. In short, the demand for TDRs (the extent of receiver areas) must exceed their supply (the extent of the resource to be protected).

F. Equity and Administrative Simplicity – The formula for establishing the TDR must have an equitable relationship with the initial and long term costs to the property owner of protecting the resource. This relationship is usually expressed in terms of the number of transferable titles per hectare of resource protected or planted. Typically there are differential rates for more valuable/scarce resources such as wetlands. A different set of rates is established for revegetation. There is an equity/simplicity trade-off that exists between a TDR process that is based on existing mapped resources and a process that relies on both mapping and certification against set criteria. This principle is further addressed below.

G. Minimal transaction costs – As with any market, and especially those for environmental goods, the greater the administrative or public process cost is associated with the generation and transfer programme, the less economic value the rights have and the less effective the programme will be. In the New Zealand context, minimal transaction costs may derive from certainty about the resource to be protected, more lenient activity status, and facilitated transfer processes. In the New Jersey pinelands example referred to above, the state established a brokerage for transfers that expedited and increased the levels of protection able to be achieved under that programme.

18. The brief for this report does not extend to a comprehensive review of the current use of transferable development rights in New Zealand. Nevertheless, a web search of district plans indicates that the utilisation of TDRs tends to be a North Island practice associated with areas that have development pressure.

19. Auckland Council,[3] Western Bay of Plenty and Waipa Districts all have provisions for conservation lot subdivision. An analysis of these provisions provides a 'snapshot' of current use and the characteristics of the rules that frame the TDR process in each local authority area (Table 2).

20. In the course of selecting these three local authorities it is noted that Whangarei, Kaipara, Thames-Coromandel[4], Hastings and Rotorua also have some form of conservation lot subdivision. However, in these areas the resulting title must be used in-situ, and there is no transfer system. Some local authorities are using a form of bonus lot or TDR for a range of environmental benefits (compensation for being under a viewshaft overlay, heritage protection, and riparian or reserve provision). TDRs have also been used to compensate landowners for the imposition of an infrastructure overlay or restriction such as being under an airport flight path. Rotorua has a TDR system for the purposes of nutrient reduction adjacent to waterbodies, where land retired from rural production creates a TDR.

21. The characteristics of the plans in Table 2 reveal both common features and some differences in approaches. These are noted as follows:

    - Western BOP and Waipa provide for certification against criteria in addition to mapped areas. Auckland relies on mapped SEA only (this provision is subject to appeal).
    - The provisions of each district plan recognise the variable value of vegetation, with wetland being valued higher than other indigenous vegetation.

Table 2: Transferable Development Rights Provisions for Auckland Council, Western BOP and Waipa Districts

District Plan Provision	Auckland[1]	Western BOP	Waipa
Name for process	Transferable rural subdivision site	Transferable protection lot	Environmental benefit lot
Protected area	Mapped SEA	Mapped Significant Ecological Feature or Certified[2]	Mapped SNA in Rural Zone or Certified[3]

[3] The Auckland Council provisions in the Unitary Plan are subject to appeal and some of the rules may change.

[4] Thames-Coromandel provisions are subject to appeal.

Receiver area	Countryside Living Zone	Lifestyle Zone	Rural Zone < 1km of urban areas or Large Lot Zones (LLZ)
Minimum area	Indigenous vegetation 5ha for 1 lot; 10ha for 2 lots; 15ha for 3 lots; +10ha for extra lots. Wetland 0.5ha for 1 lot; 1ha for 2 lots	Variable of forest type 3ha – 5ha or 0.5ha for wetland	Whole of feature
Insitu cap	3 lots for indigenous vegetation Nil for wetland	5 lots	1 lot
Receiver cap	Indigenous vegetation unlimited; Wetland 2 lots	No cap (subject to zone subdivision rules)	Rural zone only 1 lot, LLZ unlimited
Protection of all protected area	Yes	Yes	Yes
Ecologist certification	No	Yes	Yes
Activity Status	Restricted discretionary	Controlled < 2 lots Restricted discretionary > 2 lots	Discretionary
Simultaneous Donor-Receipt	Yes	No	Yes; joint application
Expiry	None stated	5 years	None stated

[1] Subject to appeal.

[2] High ranking on any three of the following criteria: representativeness, diversity and pattern, shape, ecological viability and sustainability, naturalness, rarity and special features, fragility and threat, ecological context or long term viability; in relation to tall forest, regenerating forest, secondary shrub land, riparian margins or wetland

[3]Certified against Criteria for Determining Significance for Indigenous Biodiversity, Section 11A of Waikato Regional Policy Statement

- For certification, Waipa refers to the Waikato Regional Policy Statement criteria. It is noted that Thames-Coromandel, also in the Waikato Region, refers to this criteria, suggesting some regional consistency in recognising biodiversity.
- All three district plans recognise the benefit to the protected area of limiting in-situ subdivision in favour of a TDR.
- All three district plans require the protection of all of the natural resource, irrespective of whether it is being relied on to generate the TDR.
- Auckland and Waipa require a simultaneous donor-receipt system.

- Activity status is variable from controlled activity to discretionary activity.

ENHANCEMENT PLANTING

22. The generation of TDRs through enhancement planting raises a different set of issues to TDRs based on the protection of an existing, verifiable significant natural area. Enhancement planting may consist of additional planting within an established area, but in relation to TDRs more often involves adding to or linking between existing natural areas. The ecological basis for enhancement planting to 'turn back the clock' and increase the area of forested land or wetland is sound. However, the implementation of planting schemes has been subject to much criticism and legal challenge. For example, the section 32 analysis for the Auckland Unitary Plan was critical of the process and outcomes associated with enhancement planting for rural subdivision.[5] Specific matters of concern were:

    - The contribution that the proposed planting would make to biodiversity values has been either inflated in the applicant's assessment or not properly reviewed by the local authority;
    - Certification of both plans and results has not been reliably independent and authoritative;
    - Some restoration projects have been overly ambitious, under-scoped in terms of the planting density needed, and not bonded by the local authority to ensure compliance;
    - Monitoring by local authorities has been poor to non-existent, with no follow-up with applicant's in terms of reporting requirements;
    - Funding for monitoring has been inadequate;
    - The location of the replanting has not always contributed to the consolidation of existing natural areas or linkages;
    - Where the planting resulted in an in-situ conservation lot, the development has detracted from the existing and proposed biodiversity values.

23. These are valid concerns, however many of them appear to be solvable by improved policies and standards in district plans and implementation of those provisions. Compliance and the lack of effective monitoring systems are the 'Achilles heel' of environmental performance in New Zealand, recently highlighted in the analysis by Marie Brown of the Environmental Defence Society.[6] For enhancement planting to produce the anticipated benefits, the monitoring effort, at the cost of the consent holder, must be much more effective than in the past.

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[5] Section 32 report on the Proposed Auckland Unitary Plan 2.35 - Rural subdivision

[6] Last Line of Defence: compliance, monitoring and enforcement of New Zealand's environmental law' M. Brown 2017

24. A specific concern of enhancement planting has been the adequacy of planting plans, and the potential for the proposed planting to have a real biodiversity benefit. A local authority adopting a TDR process based on enhancement planting must have the technical capability to establish criteria for planting that is appropriate to the ecological district(s) that are relevant and to monitor the outcomes.

25. Monitoring of consents for conservation lots in the former Rodney and Franklin Districts, particularly those based on planting, indicates a much lower level of compliance in terms of the condition of the covenanted area than for QE Elizabeth II protected areas. It is considered that reporting by consent holders/property owners against the requirements of consent conditions and monitoring by local authorities must be more coordinated and potentially organised at a regional level. It is one thing to covenant the land, it is quite another to implement ongoing protection of plants and animal life.[7]

26. An emerging approach for recognising priority biodiversity areas has been the identification of landscape scale biodiversity management plans by regional councils. These include the Northwest Wildlink in Auckland, Cape to the City in Hawkes Bay, and the Taranaki Mounga project. It is considered that there is the potential for such regional scale plans to provide direction to district plans on preferential planting and protection areas. However, a caution is expressed about linking these plans to TDRs as the objectives of the regional plans must be aligned with the TDR biodiversity outcomes.

DISCUSSION POINTS

Other Forms of Protection

27. New Zealand has other forms of protection for significant ecological areas. The Queen Elizabeth II Trust Act 1977, the Reserves Act 1977 and the Conservation Act 1987 all provide for voluntarily protection. These Acts enable land to be protected in the public interest without the need for public acquisition. It is evident that significant ecological areas are being protected on private land through government and private-funded covenants and other mechanisms. Individual landowners are also choosing to fence off and maintain remnant areas of bush, riparian margins and wetlands on their land as un-rewarded private initiatives.

28. However, the New Zealand Biodiversity Strategy 2000-2020 suggests that a range of measures are needed. It recognises that no single approach will achieve the Strategy's goals. The Strategy *"requires the assistance of willing and active landowners. While many landowners are receptive to contributing to New Zealand's biodiversity goals, they need assurance that their efforts will contribute to a coherent larger programme."* Action 1.1c of the Strategy seeks to *"Encourage and support initiatives to protect and maintain habitats and ecosystems important for indigenous*

[7] Taonga of an island nation: Saving New Zealand's birds. Parliamentary Commissioner for the Environment. May 2017

biodiversity on private land using a mixture of mechanisms, recognising the rights, responsibilities and interests of landowners and society, including information, education, voluntary mechanisms, economic incentives, property rights and regulation."

29. In comparison with voluntary approaches, TDRs are a transparent and well-targeted property rights-based mechanism that is economically efficient in that they produce a net benefit. They are also undertaken by those best placed to maximise this benefit.

Emphasis on Biodiversity

30. The emphasis of the process is on protection, not subdivision. It is highly desirable that the protection provisions are therefore found in the 'Natural Area' section of a district plan. The use of the title that results, whether this is in-situ or by TDR can be located in the subdivision section. This means that the subdivision process that follows does not complicate the protection process.

In-situ Conservation Lots

31. As noted in the review of TDRs in New Zealand, several district plans contain provisions that provide for conservation lots, but only on an in-situ basis. The specific reasons for this on a case-by-case basis are unknown, however it is suspected that the complexities of identifying receiver areas and administering a transfer scheme is beyond the technical capacity (see Principle B above) or the will of the council. A more in-depth study may reveal the differences in take-up of conservation lot programmes with and without a TDR process.

32. There are strong resource management reasons for limiting in-situ conservation lot subdivision, as follows:

    - The creation of in-situ lots may devalue the very resource for which protection is provided. In circumstances where the entire property is recognised as needing protection, or where there are limited building and access opportunities outside the protected area, the introduction of new households bringing well-documented 'edge effects' and the potential for domestic pet ownership has a high probability of adverse effects on the resource.

    - The second reason is the potential for adverse effects on rural amenity and pressure on rural roading and other services. This matter is not focused on biodiversity but it is an important resource management issue.

33. In summary, it is considered that in-situ conservation lot subdivision should be capped. Districts with only in-situ provision could achieve greater overall benefits for biodiversity through the addition of a TDR option, and a cap on in-situ subdivision. There will undoubtedly be examples of in-situ subdivision with significant biodiversity gains, however these can be considered through a consent process with a greater level of discretion for the local authority.

Receiver Neighbour Adverse Effects

34. The main source of documented resistance within receiver areas comes in the form of submissions against notified TDR based subdivision applications. Typically the receiver areas are already well-established countryside living areas with minimum lot sizes at 2ha (the old 10 acre block). When new rules are introduced to such an area providing for new lower minimum lot sizes based on TDRs, the community is often divided in their view as to whether the new smaller lot sizes of 1ha or 8000m^2 are acceptable. Many such property owners value the opportunity for further subdivision, even if they do not intend to take advantage of this opportunity immediately. Others consider that the increase in density detracts from the semi-rural amenity they moved to the area for.

35. As noted in Table 1, the receiver neighbour, and the rural amenity they enjoy is one area of potential cost in the overall TDR equation. These costs are able to be avoided and mitigated in the following ways:

    - Firstly, receiver areas must be explicitly stated and recognised in district plans. Zoning provisions are then able to be included in the land values of the countryside living area and expectations of density can be appreciated by owners.
    - Secondly, the subdivision rules for new lots (whether generated by TDR or standard subdivision) should incorporate criteria on building separation, access provision and landscaping, all of which have the potential to mitigate additional density.
    - Thirdly, receiver area property owners must be reassured that additional subdivision can only be by way of TDR, and that the system is 'evasion proof' (see Principle C above).

Supply and Demand

36. The principles for a successful TDR scheme referred to above include the market recommendation that demand for TDRs exceed supply. This principle is based on the premise that the most important objective, if not the only objective, in the district plan is the maximisation of biodiversity outcomes. As a result, the receiver area must have an active subdivision market and that the price willing to be paid for a title by the receiving subdivider is sufficient to warrant the protection effort at the donor end.

37. In practice, district plans have multiple objectives, including those relating to rural subdivision and urban containment. The district plan may therefore seek to limit rural subdivision, including the number of new households provided for in the countryside living zone. It will be encumbent on the policy makers to resolve such conflicts in each local authority area. However, any restriction in demand must recognise that this will limit the benefits that TDRs can produce. Monitoring should be in place on the generation and uptake of TDRs and changes in the marketplace.

38. For districts in New Zealand where there is little demand for rural subdivision a more fundamental issue exists for TDRs: Where does the incentive come from to permanently protect land? The absence of a market as described in Table 1 in many

areas raises the question of what proportion of remaining natural areas worthy of protection are likely to be outside a TDR marketplace?

39. Two possible innovations in the TDR process are suggested. Firstly, there is nothing to prevent to a receiver area from being located in an urban setting with the 'bonus' provision being higher density residential or additional commercial gross floor area. These options still require a development market but are likely to have wider application throughout New Zealand. Secondly, is it possible that TDRs could be transferred across local authority boundaries? This option would require legislative change and a great deal of cooperation. The answers to these questions are beyond the brief for this report.

Mapping versus Certification

40. The snapshot review of three district plans above indicates differences in approaches to the identification of the area qualifying for protection. Whereas Western BOP and Waipa rely on both mapped significant ecological areas and an area certified by a suitably qualified person, the Auckland Unitary Plan provisions rely solely on mapped areas. The arguments for either approach are as follows:

41. The mapped area approach has administrative simplicity (see Principle F above) and provides greater certainty as to the overall generation of conservation lots, and therefore control over supply and demand. This approach also provides a stronger guarantee that the identified area is worthy of protection. The mapped area can be reviewed periodically by way of a plan change process. In this process a district-wide comparison of significance of the various areas can be factored in to any proposed changes to boundaries.

42. The certification approach trades off simplicity for equity. The accuracy and completeness of mapped areas is often criticised by property owners. For a mapping overlay to be accurate and complete in every instance requires an effort at the time of original map creation that is beyond the capability of most local authorities. There will always be errors. Furthermore, vegetation is dynamic and if the mapped area has not been reviewed for several years it is likely to have grown (or if not managed appropriately been reduced by clearance or stock grazing). In either event, certification is seen as an appropriate step in confirming the mapped boundary. Certification as part of a resource consent process ensures that the costs of certification are borne by the applicant. The public bears the cost of periodic review by way of plan change.

43. To overcome the reservations held by some local authorities on the certification approach, and the same concerns expressed in relation to the enhancement planting above, it is imperative that only a suitably qualified person is able to undertake the certification process. Such a person would be suitably experienced to ensure that the certified areas met the various criteria including those on district or region-wide significance. The methodology of the certifier must be guided by both the policy prescription and detailed standards in the district plan. These standards must be detailed on size, condition, ecological value, priority ecosystem types, and location.

Transaction Costs

44. Principle G above refers to the importance of minimising transaction costs. There are several aspects of the TDR process where transaction costs can be minimised. These reside not so much in the fees paid to the local authority, consultants or lawyers, but in the interactions of the process itself and mechanisms whereby 'frictions' which can slow down the process can be reduced.

45. The first of these is the connection between donor and receiver. It is noted that section 87 of the RMA specifies the types of resource consents possible. A land use consent (to do something that would contravene section 9) or a subdivision consent (to do something that would contravene section 11) are the options for consideration. Simply to permanently protect a SEA with a covenant is unlikely to contravene any matter in sections 9 or 11, and so could not be the subject of a resource consent. Consequently, the donor and receiver need to be connected. Furthermore, the protection process will not be complete until the covenant is registered on the title and that this cannot occur until a receiver is located.

46. However, the matching up of donor and receiver is a particular problem when a protection or planting proposal generates multiple titles. If it is encumbent on the donor to find a receiver for each of the titles as part of the title generation process, this requirement is likely to slow the process, or even prevent the process from occurring. It is possible that the donor also owns land within the receiver area, but property owners engaged in SEA protection may not want to become property developers in the countryside living area, nor are they likely to have the resources for the purchase of countryside living land. It is far more probable, and common practice, that a receiver will need to be found, and the greater number of titles, the less likely it is that a match will be made immediately. Consequently, transaction costs could be reduced through the staging of the TDR process between donor and receiver, or by allowing for protection and title creation to be staged. Notwithstanding the above argument it is recognised that a large number of 'latent' titles for TDR is undesirable and could raise issues for future administration

47. The potential for the transfer to be confounded by application difficulties and delays at the receiver end also need to be considered.

48. As part of its resource consent monitoring task, a local authority will typically record the transfer to titles by keeping a register of TDRs or titles available. In order to facilitate and reduce transaction costs the local authority should keep an on-line TDR register of titles available, including contact details.

49. Another element of the TDR process is the activity status and the criteria surrounding assessment. The TDR process must be subject to a consent process as discretion is required to be exercised, and consent must be able to be declined. This suggests at least a restricted discretionary activity status. However, the TDR process will also be subject to criteria on a range of matters including:

    - the location of the significant ecological area to be protected;

- maximum number of sites to be created;
- the extent of indigenous vegetation on the site;
- the nature and extent of qualifying planting (to be in accordance with district plan criteria);
- plant and pest management proposals; and
- proposals for legal protection.

50. Compliance with these criteria would indicate a large measure of consistency with the objectives and policies of the plan that underpin the rules for protection. If the application complied with the criteria it is considered that a restricted discretionary activity status is appropriate, as no wider discretion would need to be exercised. Non-compliance with the criteria would result in either a discretionary activity or non-complying activity status.

NPS BIODIVERSITY GUIDANCE FOR THE USE OF TDRs IN DISTRICT PLANS

51. The above review has examined TDRs in the context of biodiversity gains, the drivers for the process of TDRs, the principles for successful TDR processes, and the strengths and weaknesses of some of the existing TDR processes in New Zealand. The ultimate question posed in the brief is whether it would be useful for the NPS Biodiversity to provide guidance on the use of TDRs in district plans?

52. As noted previously, the TDR process requires an active rural subdivision market to operate. In the absence of finding an alternative market-based incentive system for parts of New Zealand that do not have such a market, or enabling cross-boundary TDR processes, it must be recognised that NPS Biodiversity guidance on TDRs will only be relevant to some parts of New Zealand. However, as the New Zealand Biodiversity Strategy 2000-2020 suggests, a range of measures are needed.

53. Consequently, while recognising the territorial variation in the relevance of TDR processes, it is considered that these processes can play an important part in the implementation of a national biodiversity policy and that effective TDR processes need to incorporate the following characteristics and features:

    i. Recognition of significant ecological areas. This is a principle of any TDR process (Principles B and D above). It is understood that criteria for identifying significant ecological areas are likely to be included in the draft NPS thus establishing a basis for nationwide consistency. In addition to such recognition it is considered that district plans, perhaps in giving effect to the content of regional plans (as noted in the Waikato Region), identify priority areas for protection and enhancement. In the discussion above on enhancement planting criteria, the emergence of regional ecological corridors was recognised as the basis for such priority areas.

    ii. Emphasis on biodiversity not subdivision. It is considered that the objective and policy framework of the district plan should emphasise that TDRs are about the protection of SEAs. This emphasis can be achieved through locating the

protection provisions in the Natural Areas, or similar, section of the plan with clear objectives as to the overall outcome sought, the specific biodiversity targets or areas for protection and enhancement within the district, and the significance criteria to be adopted in pursuit of those targets. The use of TDR, including the formal covenanting of the SEA, can reside in the subdivision section.

iii. The preference for certification. The advantages and disadvantages of mapping versus certification (in addition to mapping) have been discussed above. On balance it is considered that greater biodiversity gains can be achieved by providing for certification. However, for both protection and enhancement planting the utilisation of qualified and experienced persons is critical. District plans need to provide effective policies and standards for achieving the right biodiversity outcomes from TDRs.

iv. Effective monitoring systems. The corollary to certification is that the monitoring systems of the local authority must be robust. The Resource Management Act 1991 provides the legal authority for this monitoring to occur. It is encumbent on the local authority to use its powers, at the cost of the consent holder, to ensure that the requirements of the consent and related covenant are met on an ongoing basis.

v. Minimising transaction costs. The NPS should include a general policy on minimising transaction costs. The implementation of efficient processes will reside with the local authority however, the above analysis supports features such as the staging of donor and receiver processes, the maintenance of an on-line register of titles, and appropriate activity status.

vi. Limits on in-situ conservation lots. The adverse effects of in-situ subdivision based on conservation lots, particularly in circumstances where these lots are located within the SEA, have been discussed above. Such limits are necessary to support a successful TDR process.

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