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Conservation Covenants: An Environmental
Law Centre Research and Policy Paper

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Conservation Covenants:
An Environmental Law
Centre Research and Policy
Paper

Kim Hawkins
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Prepared April 26, 1999

Introduction

Statutory conservation covenants are a relatively new creation in British Columbia, as in most of North America. They promise to bolster the already booming land trust movement, which has proved to be among the most successful methods of preserving open space and ecological integrity in the face of encroaching urbanization. Much of this success seems attributable to a “happy congruity” between public interest objectives and private, voluntary land transactions.¹

However, the future may hold increasing friction between the private and public aspects of conservation covenants, as the first generation of voluntary transactions passes. Subsequent land-owners may be less inclined to perceive restrictions under a covenant as voluntary, and more likely to contest limitations on their free use of the land. In the United States, where “conservation easements” have protected property for over 40 years, few conflicts have arisen over enforcement.² Nonetheless, commentators in the U.S. warn that “some dark omens cloud the future of the movement,” given the uncertainty surrounding how courts will interpret and enforce such restrictions in the face of change.³

This proposition is underscored by the traditional hostility of the common law to perpetual restrictions on land. As one commentator notes:

Despite strong and widespread legislative support for enforcement of conservation easements in perpetuity, courts may draw on a host of common law doctrines to modify and terminate perpetual conservation restrictions.⁴

A body of literature is developing in the U.S. concerning the uneasy relationship between

¹ F. Cheever, “Public Good and Private Magic in the Law of Land Trusts and Conservation Easements: A Happy Present and a Troubled Future” 73 *Denver U. L. Rev.* 1077 at 1078.

² *Ibid.* Land-use planner William Whyte first popularized the conservation easement concept in 1959. See: W. Whyte, “Securing Space for Urban America: Conservation Easements” (1959) 36 *Urb. Land Inst. Technical Bull.* 1.

³ *Supra*, note 1.

⁴ A. Dana and M. Ramsey, “Conservation Easements and the Common Law” (1989) 8 *Stanford Environ. L. J.* 2 at 44.

conservation easements and traditional principles of property law.⁵ The difficulties posed by the common law are unlikely to prove disastrous for conservancy groups; in fact, the few reported U.S. court cases dealing with the enforcement of conservation easements demonstrate a judicial willingness to enforce conservation restrictions and a respect for their underlying policy.⁶ Still, an awareness of the potential challenges conservation covenants face may foster drafting more likely to withstand the scrutiny of common law doctrines. It may also illuminate the areas in which traditional conceptions of property law must evolve to accommodate the conservation objectives embodied in the creation of these novel statutory covenants.

In British Columbia, most of the common law doctrines challenging the perpetuity of conservation covenants are now codified in s. 35 of the Property Law Act.⁷ The first section of this paper discusses the avenues available for a court to modify or cancel a conservation covenant pursuant to this section. This discussion is not exhaustive; rather, it represents a brief exploration of the paramount obstacles facing conservation covenants in the future. It suggests these obstacles are not insurmountable.

The second portion of this paper describes biological considerations for covenants and stewardship agreements. Attention to ecological principles will ensure that arrangements support the conservation goals of both parties, and provide the best chance of successful implementation.

Part 1: Legal Challenges to Conservation Covenants

⁵ In addition to the articles cited elsewhere in this paper, see: R.B. Collins, "Alienation of Conservation Easements" (1996) 73 Denver U. L. Rev. 1103; G. Korngold, "Privately Held Conservation Servitudes: A Policy Analysis in the Context of in Gross Real Covenants and Easements" (1984) 63 Texas L. Rev. 433; V. Quinn, "Preserving Farmland with Conservation Easements: Public Benefit or Burden?" (1992/93) Ann. Surv. Am. L. 235; T. Grier, "Conservation Easements: Michigan's Land Preservation Tool of the 1990s" (1991) 68 U. Detroit L. Rev. 193

⁶ *Supra*, note 1 at 1101. See: *Madden v. the Nature Conservancy*, 823 F. Supp. 815 (D. Mont. 1992); *Bennet v. Commissioner of Food and Agriculture*, 576 N.E.2d 1365 (Mass. 1991) (enforcing a conservation restriction on the location of a dwelling, despite the fact the constituting statute made no reference to dwelling restrictions); *Goldmuntz v. Town of Chilmark*, 651 N.E.2d 864 (Mass. App. Ct. 1995).

⁷ R.S.B.C. 1996, c. 377.

Section 35(1) of the Property Law Act provides that a person with an interest in land may apply to the Supreme Court for an order to modify or cancel a charge against the land, including a “restrictive or other covenant burdening the land or the owner” (emphasis added). Consequently, persons seeking to remove or vary a conservation covenant would likely bring a petition pursuant to this section.

Section 35(2) establishes the circumstances in which the court will issue an order to modify or cancel a charge against land. This section provides:

The court may make an order sought under subsection (1) on being satisfied that the application is not premature in the circumstances, and that

- (a) by reason of changes in the character of the land, the neighbourhood or other circumstances the court considers material, the registered charge or interest is obsolete;
- (b) the reasonable use of the land will be impeded, without practical benefit to others, if the registered charge or interest is not modified or cancelled;
- (c) the persons who are or have been entitled to the benefit of the registered charge or interest have expressly or impliedly agreed to it being modified or cancelled;
- (d) modification or cancellation will not injure the person entitled to the benefit of the registered charge or interest; or;
- (e) the registered instrument is invalid, unenforceable or has expired, and its registration should be cancelled.

These subsections are alternatives to each other, and an applicant need only satisfy one of them to obtain cancellation or modification. As mentioned above, these subsections codify a number of common law challenges to charges against land. As yet, no statutory conservation covenants in British Columbia have been considered in light of these provisions. However, courts interpreting these provisions frequently refer to the common law doctrines they codify as a guide

to their interpretation.⁸ Consequently, an understanding of these doctrines, and the manner in which the courts apply them pursuant to ss. 35(2), may illuminate some of the future challenges awaiting conservation covenants. Following is a brief discussion of each subsection and its treatment by the courts.

It is important to note first that the outcome of any one decision depends almost entirely on the unique set of facts in that case. Consequently, the case law surrounding s. 35 offers more guidance than binding precedent, revealing the factors courts consider in determining whether charges against land should prevail.

Prematurity

Before a court will consider whether any of the subsections under ss. 35(2) apply, it must first be “satisfied that the application is not premature in the circumstances.” The court will dismiss an application as premature even where it might otherwise succeed on one or more of the grounds enumerated under ss. 35(2).⁹

Consequently, the first defence to an application to cancel or modify a conservation covenant may be an assertion that the application is premature. *Newco Investments Corporation v. British Columbia Transit* established the test for prematurity in this context:

[W]here it appears that considerations, material to a determination whether grounds exist under paras. (a) to (e), have not yet materialized or where, for other reasons, it would be better to defer to a later date consideration of whether the covenant should be struck out, the application should be dismissed.¹⁰

However, the case law suggests prematurity has not constituted a significant impediment to

⁸ For example, see *Zabolotniuk v. Strata Plan NW1527* (Nov. 15, 1990), Doc. Vancouver H900598, [1990] B.C.J. No. 2434 (B.C.S.C.) (*per* Spencer J.: “[C]ommon law authorities...are a guide to the interpretation of the section which has codified the common law”).

⁹ *Newco Investments Corporation v. British Columbia Transit* (1987), 14 B.C.L.R. (2d) 212 (C.A.) at 222.

¹⁰ *Ibid.*

applications under s. 35.¹¹

In *Lonegren v. Rueben*, the B.C. Court of Appeal considered a petition to cancel an easement as obsolete because of encroaching development. In holding that the petition was premature because zoning changes necessary for the development had yet to be approved, the court stated:

The time has not yet come when any court can say with confidence that the character of the neighbourhood had changed to such a degree as to make it proper to invoke the appropriate section of the statute.¹²

This is a succinct statement of the test of prematurity courts seem to apply: the circumstances must be such that the court can determine with confidence whether the requirements of the subsection are met.

However, subsequent cases have interpreted this requirement narrowly. In *Broadmead Farms Ltd. v. Gawley*,¹³ the B.C. Supreme Court cancelled a restrictive covenant limiting land use to grazing and market gardening, thus allowing the petitioner to proceed with residential development. The court held that the application was not premature, although the land in question was still under the Agricultural Land Reserve and the Municipality had not approved—or even received—a development plan from the petitioner. The court distinguished *Lonegren* on the grounds that the beneficiary of the easement in that case stood to be deprived of their right to walk over the forested easement area without any development ever occurring. In this case, the court found that the benefit of the restrictive covenant (the pastoral ambiance of the neighbourhood) would remain uninterrupted unless development proceeded.

Consequently, an application under ss. 35(2) will not be rejected as premature solely on the

¹¹ For examples of applications rejected as premature, see *Burmount Holdings Ltd. v. Chilliwack (District)* (1994), 36 R.P.R. (2d) 218 (B.C.S.C.); *Lonegren and Lonegren v. Rueben and Rueben* (1987), 26 B.C.L.R. (2d) 327 (C.A.).

¹² *Ibid.* at 342.

¹³ [1990] B.C.J. No. 938 (B.C.S.C.).

basis that zoning changes are a precondition to development, or even on the basis that the development itself has yet to be approved.¹⁴ This proposition is especially forceful where—as is the case with many conservation covenants—the benefit of the charge will not be forfeited unless development occurs.

Obsolescence: ss. 35(2)(a)

The court may modify or cancel a charge where changed conditions have rendered it obsolete. Despite early indications to the contrary,¹⁵ the determination of obsolescence under this subsection does not involve balancing the interests of the respective parties.¹⁶ Instead, it requires “a consideration of the nature of the charge itself in the circumstances of the use of the relevant property and a determination of whether on those facts the charge or interest is obsolete”.¹⁷

There is no legal magic to the word “obsolete”. In *Collinson v. Laplante*, the B.C. Court of Appeal provided a frequently cited definition:

No technical meaning is to be given to the word “obsolete” in this provision. It is an ordinary English word which is defined in the Shorter Oxford Dictionary, 3rd ed., thus:

“1. That is no longer practised or used; discarded; out of date. 2. Worn out; effaced through wearing down, atrophy or degeneration.”¹⁸

A more precise definition is found in *Kirk v. Distacom Ventures Inc.*, where the B.C. Supreme Court indicated “[i]t may be said that the covenants have become obsolete because their original purpose can no longer be served”.¹⁹

¹⁴ See also: *Laurence v. Century Holdings Ltd.* (1985), 64 B.C.L.R. 22 (S.C.).

¹⁵ *Ibid.*

¹⁶ *Chivas v. Mysek* (Dec. 4, 1986), Doc. CA004068, [1986] B.C.J. No. 2547 (C.A.); *Collinson v. Laplante* (1992), 73 B.C.L.R. (2d) 257 (C.A.); *Broadmead Farms Ltd.*, *supra*, note 13.

¹⁷ *Chivas v. Mysek*, *ibid.*

¹⁸ *Supra*, note 16 at 265.

¹⁹ (1994), 45 R.P.R. (2d) 313 (B.C.S.C.), *rev'd on other grounds* (1996), 4 R.P.R. (3d) 240 (B.C.C.A.), quoting *Re*

Courts have refused to consider charges obsolete solely on the grounds that they are no longer *necessary*. For example, in *Collinson v. Laplante*, a road easement was originally granted across one property to allow access into a neighbouring property. Although this neighbouring property eventually attained alternative access, the Court of Appeal held that the easement road was not obsolete, since the neighbours continued to use it throughout the relevant period.²⁰ However, a charge may be rendered obsolete where it falls into a prolonged period of disuse.²¹

Consequently, a court is only likely to cancel a charge against land where its original purpose is “no longer practiced or used, out of date”.²² The case law suggests this threshold is actually quite high. For example, charges have been considered obsolete where:

- a road easement was never used from the moment of its inception;²³
- land subject to a restrictive covenant limiting its use to residential dwellings had never been used for that purpose and had served as a marina for over 20 years;²⁴
- a restrictive covenant limited land use to agricultural purposes in an area that was unused for 18 years and eminently unsuited for such purposes.²⁵

In *Parmenter v. British Columbia (Minister of Environment, Lands and Parks)*,²⁶ a covenant restricting land use to agricultural purposes was removed only because of overwhelming evidence that the land was unsuitable—and would remain unsuitable—for farming.

Truman, Hanbury, Buxton & Co. Ltd.’s Application, [1956] Q.B. 261 (C.A.) at 272.

²⁰ A similar result was reached in *Chivas v. Mysek*, *supra*, note 16 (right-of-way not obsolete as it was still used for limited purposes although an alternative road provided access).

²¹ *Gray v. Doyle* (Feb. 19, 1997), Doc. Nanaimo S14515 (B.C.S.C.), [1997] B.C.J. No. 448 (S.C.) (cancellation of road easement that evidence established was never used). Still, the Court of Appeal reversed this decision, holding the trial judge erred in applying a test of necessity: (May 6, 1998), Doc. Victoria CAV03007 (B.C.C.A.).

²² *Re Crescent Beach Marina Co. (1967) Ltd* (Nov. 23, 1987), Doc. New Westminster A871424, [1987] B.C.J. No. 2635 (S.C.).

²³ *Supra*, note 21.

²⁴ *Supra*, note 22.

²⁵ *Supra*, note 13.

²⁶ (3 February 1993), Vancouver A922284 (B.C.S.C.).

This high threshold suggests well-drafted conservation covenants are likely to survive scrutiny for obsolescence, provided their objectives and underlying purposes are not wholly unrelated to the reality on the ground. Layering a number of purposes and objectives over the land in question may provide an extra measure of security. Should conditions change to the extent that the covenant no longer furthers one objective, other objectives, expressly stipulated in the covenant, may mitigate against a finding of obsolescence. Conservancy groups should consider including arbitration clauses concerning changed conditions to encourage mutually beneficial solutions where circumstances have truly altered the context of the original covenant.²⁷

The importance of carefully connecting the objectives of the covenant to the land it covers is underscored by the fact courts may remove a portion of land from a covenant if the covenant is obsolete in relation to that portion. In *Broadmead Farms Ltd. v. Gawley*, the court held that “the inquiry should be...limited to only that portion of the petitioner’s land on which it seeks to release the restrictive covenant”.²⁸ Consequently, portions of land under a conservation covenant may be vulnerable if they are not connected to the over-arching objectives and purposes of the covenant.

On a more fundamental level, the applicability of the doctrine of changed conditions to conservation covenants is highly questionable. Careful consideration of the doctrine’s underlying principles suggests it is not directly transferable to the context of conservation covenants. As a general legal tool, the doctrine is justified on three grounds:

- (1) [T]he original parties to the land-use restrictions could not have anticipated change and therefore could not have intended that the restriction be enforced in the face of change,
- (2) long-term restrictions give the possessors of such interests the right to cause inordinate harm to current owners of the servient parcel (the “holdout” problem), and
- (3) renegotiation of land-use restrictions is impractical because of high transaction

²⁷ This approach is not universally endorsed, however, because of the risk that future landowners will abuse renegotiation provisions: A. Dana and M. Ramsey, “Conservation Easements and the Common Law,” *supra*, note 4 at 34.

²⁸ *Supra*, note 13.

costs.²⁹

Conservation covenants present many countervailing considerations. First, the presumption that the parties could not have anticipated change is simply inapplicable, since conservation covenants, by definition, are negotiated in anticipation of change. The sole purpose of a conservation covenant is frequently to mitigate against the adverse effects of change in the surrounding area. Striking down covenants precisely at the moment the anticipated change occurs would undermine the very purpose of the covenant agreement, as well as the legislative intent underlying the conservation covenant provisions of the Land Title Act. It would jeopardize the perceived—and actual—security of conservation covenants as a land preservation tool, with a consequent chilling effect on the land trust movement.

Further, the “hold-out” problem is less a problem than a necessary incident of private property rights:

Nonenforcement of perpetual restrictions deprives the land-owner of a crucial right to freedom of contract: the ability to enter voluntary arrangements with respect to private property.³⁰

Future land-owners are not deprived of their freedom of choice if provided with adequate notice of a conservation covenant. By purchasing the land, they choose to respect the conservation restrictions relating to the land. Neither are they inordinately deprived economically, since these restrictions are capitalized into the purchase price of the land.³¹

Finally, conservation covenants are not as inflexible as some other charges against land. Conservancy groups generally resort to court enforcement as a last resort, and are often willing to modify agreements to accommodate subsequent land-owners, provided the integrity of the covenant is not damaged. Where conditions have truly changed to the extent that the covenant no longer possesses any ecological or public interest value, the conservancy group is likely to

²⁹ A. Dana and M. Ramsey, “Conservation Easements and the Common Law,” *supra*, note 4 at 41.

³⁰ *Ibid.* at 26.

³¹ *Ibid.*

terminate the charge rather than expend limited resources on enforcement and monitoring.

These considerations suggest that courts should invoke the doctrine of changed conditions to cancel or modify a conservation covenant only after serious consideration of the doctrine itself, the policies underlying conservation covenants, and the implications of such a decision for the land trust movement. It may be that the doctrine is, save in exceptional circumstances, wholly inappropriate in this unique context.³² The current focus of the courts under ss. 35(2)(a), emphasizing the purpose of the charge rather than a balancing of interests, seems consistent with this perspective.

Reasonable use impeded without practical benefit to others: ss. 35(2)(b)

Section 35(2)(b) provides that a court may cancel or modify a charge against land where otherwise the reasonable use of the land will be impeded without practical benefit to others. Unlike the test for obsolescence under ss. 35(2)(a), determinations under this subsection may involve balancing the interests of the respective parties.³³

In practice, however, the balance weighs heavily in favour of upholding charges against the land. Courts recognize that easements and restrictive covenants impede the use of land by their very nature.³⁴ As a result, it is insufficient for a petitioner to merely assert that the desired use of the property outweighs the practical benefit others derive from the charge:

[T]his section of the Act was not designed...to enable one owner to get a benefit by being freed from the restrictions imposed upon his property in favour of a neighbouring

³² For a more detailed discussion of the doctrine of changed conditions and its applicability to conservation easements in the U.S., see: J. A. Blackie, "Conservation Easements and the Doctrine of Changed Conditions" (1989) 40 Hastings L. J. 1187. The author contends that the doctrine should not apply to a conservation easement unless the easement's purpose has become entirely obsolete, in which case the public nature of the easement requires the land-owner to pay the holder the value of the easement.

³³ *Quadrant Developments Ltd. v. Madiuk* (1980), 23 B.C.L.R. 241; *Chivas v. Mysek*, *supra*, note 16; *Broadmead Farms Ltd. v. Gawley*, *supra*, note 13.

³⁴ *Gubbels v. Anderson* (1994), 37 R.P.R. (2d) 313 (B.C.S.C.); *aff'd* (1996), 4 R.P.R. (3d) 240 (B.C.C.A.); *Collinson v. Laplante*, *supra*, note 16.

owner, merely because, in the view of the person who desires the restrictions to go, it would make his property more enjoyable or more convenient for his own private purposes.³⁵

The case law suggests that if any practical benefit is derived from the charge by others, then reasonable interference with the property owners' land will not give rise to an order to modify or cancel the charge.³⁶

Jurisprudence relating to this subsection has developed outside the context of conservation covenants. The case law is almost exclusively concerned with disputes between private parties, where it is relatively easy to identify precise individuals obtaining practical benefit from the charge. The situation where a covenant is held by a third party organization, such as a conservancy group, for the practical benefit of the natural ecosystem and general public (including future generations) may require a more flexible application of the prevailing test. Conservancy groups may be required to argue cases in circumstances where the benefit of a covenant is impossible to quantify, whereas the costs of upholding the covenant against a landowner or the community is calculable to dollar:

Because the benefits of scenic views, open space, and environmental preservation accrues to a diffuse public, the benefits are difficult to quantify. The benefits derived are often passively enjoyed by members of the public; for example, individuals pay nothing to enjoy a view. As a result, economic tools normally used to measure social benefits in the market place...do not capture the full value of these non-market goods. On the other hand, the cost of foregoing construction of a shopping mall or a housing development on protected property are more easily determined because the beneficiaries of the projects and what they stand to lose are more readily identified.³⁷

Conservancy groups should be prepared to argue the practical benefits of conservation as it relates to the parcel of land in question. Recent case-law suggests courts are amenable to considering intangible benefits derived from charges against land. For example, in *Gubbels v.*

³⁵ Oliver J. in *Kirk v. Distacom Ventures Inc.*, *supra*, note 19 at 322, quoting Farwell J. from *In re Henderson's Conveyance*, [1940] Ch. 835.

³⁶ *Collinson v. Laplante*, *supra*, note 16; *Gubbels v. Anderson*, *supra*, note 34; *Kirk v. Distacom Ventures Inc.*, *ibid.*

³⁷ A. Dana and M. Ramsey, "Conservation Easements and the Common Law," *supra*, note 4 at 37.

Anderson, the court held that the reasonable use of land for construction of a single family dwelling did not warrant the cancellation of a restrictive covenant, given the practical benefit neighbours derived from leaving the land as a private reserve, including the benefit of a park-like setting and an enhanced quality of life.³⁸

Abandonment: ss. 35(2)(c)

The court may modify or cancel a charge against land where the persons benefiting from the charge have expressly or impliedly agreed to such modification or cancellation. This provision codifies and replaces the common law doctrine of abandonment (or “implied release”).³⁹ In essence, the doctrine of abandonment provides that where a person benefiting from a charge demonstrates an intention to release that charge, it will be extinguished by implied release.⁴⁰

Non-use of a charge is insufficient in itself to constitute abandonment, even if accompanied by a mistaken belief that the right has been extinguished. Non-use must be accompanied by evidence of an intention to abandon the right.⁴¹ Consequently, the test for establishing abandonment is quite onerous:

Whether the circumstances can show a subjective intention to abandon is a question of fact, and the onus of proof on a party alleging that a property right has been relinquished is a heavy one. Owners are not normally taken to have cavalierly thrown away an entitlement.⁴²

Nevertheless, non-use for a long period may raise a presumption of abandonment, requiring the owner of the charge to demonstrate their intention to retain the charge during this period.⁴³ A

³⁸ *Supra*, note 34. See also *Lonegren v. Rueben* (1987), 37 D.L.R. (4th) 491(B.C.S.C.); aff'd (1988), 50 D.L.R. (4th) 431 (B.C.C.A.).

³⁹ *Zabolotniuk v. Strata Plan NW1527*, *supra*, note 8; *Gasparin v. Arduini* (1995), 2 B.C.L.R. (3d) 94 (C.A.).

⁴⁰ R. Megarry and H.W.R. Wade, *The Law of Real Property*, 5th ed. (London: Stevens & Sons Ltd., 1984) at 897.

⁴¹ *Zabolotniuk v. Strata Plan NW1527*, *supra*, note 8 (non-use of an easement for 9 years did not establish an intent to abandon). See also: *Kasch v. Goyan* (1992), 21 R.P.R. (2d) 199 (B.C.S.C.).

⁴² B.H. Ziff, *Principles of Property Law*, 2nd ed. (Scarborough: Carswell, 1996) at 348.

⁴³ *Crossley & Sons Ltd. v. Lightowler* (1867), 2 Ch. App. 478 (U.K.); *455645 Ontario Ltd. v. Rousseau*

long-period of non-use will not give rise to a finding of abandonment where it can be shown to arise from some other legitimate cause.⁴⁴ For example, in *Zabolotniuk v. Strata Plan NW1527*,⁴⁵ an easement blocked for nine years by a retaining wall was held not to have been abandoned, since impending development would make the access it provided necessary again.

In the context of conservation covenants, it would appear that a long period without monitoring a covenant would not, in itself, lead to an inference of abandonment.

While non-enforcement of a covenant upon learning of a breach may raise a presumption of abandonment, this inference may be rebutted by evidence of an intention to retain the interest, such as correspondence with the land-owner asserting continued reliance on the terms of the covenant.

However, acquiescence in acts done by the land-owner that are inconsistent with the covenant may raise a presumption of abandonment that is more difficult to refute.⁴⁶ Even where the surrounding circumstances do not support a finding of abandonment, past acquiescence to breaches of a covenant may give rise to an estoppel where it would be inequitable to insist the covenant still exists.⁴⁷ Consequently, a conservation group should respond to any breach of a covenant with documented insistence on compliance with the terms of the agreement.

Cancellation without injury: ss. 35(2)(d)

The court may modify or cancel a charge where such an order will not injure the person entitled to the benefit of the charge. Courts frequently consider this provision together with ss. 35(2)(b),

(1981), 19 R.P.R. 1 (Ont. H.C.).

⁴⁴ *Ward v. Ward* (1852), 155 E.R. 1189 (U.K.) (right-of-way not abandoned where owner used other, more convenient access); *James v. Stevenson*, [1863] A.C. 162 (P.C.) (no occasion for user of parts of right-of-way); *Baker v. Harris*, [1930] 1 D.L.R. 354 (Ont. C.A.) (rear portion of right-of-way not used while owner did not own a vehicle).

⁴⁵ *Supra*, note 8.

⁴⁶ In the context of easements, see: *Finley v. Sutherland* (1969), 4 D.L.R. (3d) 586 (N.S.C.A.); *Re Bungay* (1983), 58 N.S.R. (2d) 327 (N.S.T.D.).

⁴⁷ B.H. Ziff, *supra*, note 42.

since a party deriving a “practical benefit” from a charge obviously stands to be injured by its deprivation. This provision, like ss. 35(2)(b), may require a balancing of the respective parties’ interests.⁴⁸

The courts have adopted an expansive interpretation of “injury,” under this subsection, refusing to restrict its scope to financial injury.⁴⁹ Essentially, “injury” means any aspect of cancelling or modifying the charge that can “cause harm to” those benefiting from the charge.⁵⁰ In *Lonegren v. Rueben*, the B.C. Supreme Court held that “injury” under ss. 35(2)(d) extended to the loss of “natural beauty and serenity” that an easement restricting development provided.⁵¹

The availability of alternatives is immaterial to the determination of “injury”. In *Collinson v. Laplante*, the B.C. Court of Appeal held that the holders of a driveway easement would be injured by its cancellation, notwithstanding the existence of alternate—even preferable— access to their home.⁵²

Again, the existing jurisprudence relating to this subsection does not speak directly to the unique context of conservation covenants. There is little guidance as to whether courts will interpret “person entitled to the benefit” of the charge as expansively as the construction of “injury”. Does this phrase include members of the general public deriving benefit from the conservation covenant, or is it restricted to the conservancy group holding the charge? Further, the phrasing of ss. 35(2)(d) seems to restrict “injury” to human injury, as opposed to environmental damage in itself. Nonetheless, courts will attempt to reconcile the legislative intent underlying ss. 35(2)(d) with the intention of s. 219 of the Land Title Act, a process that will undoubtedly require reasoned flexibility. Since statutory conservation covenants—and conservancy groups themselves—are public interest creations, it seems reasonable to expect judicial consideration of

⁴⁸ *Broadmead Farms Ltd. v. Gawley*, *supra*, note 13.

⁴⁹ *Collinson v. Laplante*, *supra*, note 16; *Lonegren v. Rueben*, *supra*, note 38.

⁵⁰ *Collinson v. Laplante*, *supra*, note 16.

⁵¹ *Supra*, note 38.

⁵² *Supra*, note 16.

the public interest before a covenant is cancelled or modified. Subsections 35(b) and (d) provide a natural forum for such consideration.

The instrument is invalid, unenforceable or has expired: ss. 35(2)(e)

This provision provides an avenue for challenging the agreement creating the charge. While this subsection embraces the doctrine of fundamental breach,⁵³ its relevance to conservancy groups stems primarily from its invocation to cancel charges on grounds of vagueness and uncertainty.

As a general principle of contract law, indefiniteness alone is very rarely a sufficient ground for refusing enforcement. Courts will usually examine the context and make the necessary implications where it is clear that the parties intended to enter into a binding contract.⁵⁴

However, this general approach to contract interpretation carries much less force where it collides with property rights and the free use of land. Courts have adopted a strict approach to the construction of agreements restricting the use of land, reflecting the common law principle that a person is entitled to use his or her land for any lawful purpose:

[D]oubtful cases, where the words, considered in the light of the surrounding circumstances, remain ambiguous, should be resolved in favour of the free use of property and against restriction.⁵⁵

It is well settled that restrictive covenants must be “precise in terms, and if they are vague and indefinite in meaning they will not be enforced.”⁵⁶ Thus, in *Stenmark v. Woywitka’s Building Supplies Ltd.*,⁵⁷ The B.C. Supreme Court held an agreement providing that “the lot below is

⁵³ *Collinson v. Laplante*, *supra*, note 16.

⁵⁴ S.M. Waddams, *The Law of Contracts*, 3d ed. (Toronto: Canada Law Book Inc., 1993) at 40.

⁵⁵ *Gubbels v. Anderson*, *supra*, note 34 at 262, citing Di Castri, *The Law of Vendor and Purchaser*, at paragraph 408, pp. 12-16.

⁵⁶ *Re Sekretov and City of Toronto* (1973), 33 D.L.R. (3d) 257 (Ont. C.A.) at 264; *Taylor v. Gilbertson* (1854), 2 Drewry 391; *Noble et al. v. Alley*, [1951] S.C.R. 64; *Kirk v. Distacom Ventures Inc.* (1996), 4 R.P.R. (3d) 240 (B.C.C.A.).

⁵⁷ (1978), 86 D.L.R. (3d) 89 (B.C.S.C.). See also *Re Sekretov*, *ibid.* (restrictive covenant held void for uncertainty where the uses to which the land could be put were entirely dependent on future resolutions of

not to have a house located in such a way as to block the view of the lake” void for uncertainty, because the court could not ascertain whether “block” referred to a complete or partial interruption of the view.

Courts are likely to adopt a similarly strict approach to scrutinizing conservation covenants. Consequently, restrictions placed on the use of the land covered by the covenant should be delineated with as much precision and clarity as possible to discourage future attacks on their enforceability. In general, conservation covenants may suffer from three types of ambiguity:

First, the physical extent of the property protected may be unclear. Second, the degree to which the property must be protected may not be well defined. Third, the responsibilities of the parties to the agreement may be poorly specified.⁵⁸

The first problem may be addressed through a survey of the boundaries; the other problems may be mitigated, if not eliminated, through careful drafting of the covenant. For example, the Land Trust Alliance Model Conservation Easement adopts a tripartite structure which identifies overarching “conservation values” the easement should protect, specific reserved rights which the land-owner may continue to engage in, and specific “prohibited uses” from which the owner must refrain.⁵⁹

Part 2: A Proactive Approach to Forming Stewardship Agreements and Covenants

Voluntary stewardship action taken by private landowners is an issue that will become increasingly important in the race to save B.C.’s wild lands. Government resources are limited and departments may not have the ability to initiate and maintain conservation programs on land held by private individuals. Sandborn notes that although only six percent of B.C.’s land is privately owned, this land includes some of the most ecologically important and sensitive

a municipal council).

⁵⁸ A. Dana and M. Ramsey, “Conservation Easements and the Common Law,” *supra*, note 4 at 21-2.

⁵⁹ F. Cheever, “Public Good and Private Magic,” *supra*, note 1 at 1080.

areas.⁶⁰

This bias in land ownership can be attributed to the locations of biodiversity “hotspots”. Hotspots usually include areas of lower elevation and land along riparian zones, all areas typically favoured for habitation by humans. Fertile soils and mild climates are particularly valued for agriculture. Conversely, a disproportionate percentage of protected areas in B.C. are alpine or subalpine regions, which are favoured for scenic and recreational values but are comparatively low in biodiversity. This suggests that successful preservation of B.C. ecosystems will require the use of targeted land preservation strategies which make use of a variety of land preservation tools, including conservation covenants. The conservation covenant remains one of the most versatile and binding tools for conserving wild areas and limiting harmful activities on private lands; however, in a voluntary program, this can be only one of several options available to landowners. The next portion of the paper describes conservation issues from a biological perspective. The principles that follow are discussed in the context of a landowner contact program, but most principles may be equally applicable at the level of individual covenant holders.

Being Proactive: Landowner Contact Programs

Landowner contact programs are a strategic conservation tool that have been successfully employed in Canada since the 1980s.⁶¹ Landowner contact programs are based on the recognition that many landowners would like to do what is best for their land but often lack knowledge of ecology and legal options as well as the time and capital to make conservation goals a reality. Landowner contact programs address this problem by providing the resources and information to private landowners within an area targeted for conservation action. A typical program features the introduction of a conservation group to citizens using introductory letters,

⁶⁰ C. Sandborn, *Green Space and Growth: Conserving Natural Areas in B.C. Communities* (Commission on Resources: 1996).

⁶¹ T. Duynstee, *Landowner Contact Guide for British Columbia* (Ministry of Environment, Lands and Parks: 1997).

phone calls and site visits. During this time, various ecological features, conservation measures and stewardship options are discussed.⁶² A detailed guide to starting a landowner contact program can be obtained through the Ministry of Environment, Lands and Parks (MELP). In order to be successful, a proactive approach to land stewardship requires the conservation group to identify fragile areas, gather detailed information regarding the local ecology and conservation practice, and effectively follow up landowner contacts with continued support and monitoring.

Identifying Target Areas and Designing Reserves

There is no possible way for a conservation group to individually target all those who live on ecologically important land; therefore, it is essential to identify an area which can be effectively communicated with. Many environmentally-sensitive areas of B.C. have already been inventoried. If local mapping of streams or environmentally sensitive areas (ESA) has been conducted, it may be available through the municipal planning department. Aerial photographs can also aid in identifying regions of interest. Property owners can then be identified using cadastral (property assessment) maps from the municipal government and the Land Titles Office.⁶³

Most ecosystems will be located according to natural geographic features such as watershed or riparian zone. While there are unique biological features on many pieces of property, certain land use systems are better designed to promote ecological values. Some may be particularly suited to stewardship agreements.

When it comes to creating ecological reserves, bigger is better. The larger the reserve, the greater the number of ecosystems, environmental conditions and species it will hold.⁶⁴ Larger populations are less likely to go extinct and are more likely to be genetically viable over a long

⁶² *Ibid.*

⁶³ *Ibid.*

period of time. Large animals, especially predators, require vast ranges over which to hunt, mate and raise a family. Larger areas with high biodiversity are also more resilient in the face of an unexpected or catastrophic event, and these ecosystems are more likely to recover than their smaller counterparts.⁶⁵

In contrast, small reserves are subject to “ecosystem decay,” which is the progressive disintegration at the margins of an ecosystem, marked by a loss of biodiversity. Many animals are sensitive to “edge effects.” Edge effects are seen at the outskirts of forests or other habitats. They are generally characterized by being windier and drier than central areas; they are warmer in the summer and cooler in the winter.⁶⁶ These conditions lead to a situation where edge zones are avoided by many types of wildlife. A study by B. Paton indicated that birds experience unusually high levels of nest predation near the edges,⁶⁷ and some species will not nest at all within a certain distance from the edge. R. Bierregaard also noted that higher levels of tree mortality occurred near the edges of tropical rainforests.⁶⁸ Smaller reserves have relatively more edge than larger reserves, increasing the impact felt by wildlife as a result of development. Circular reserves are the preferred shape because they have the smaller “edge:area” ratio than any other shape. Edge is increased in the presence of fragmentation, when populations are physically divided by disrupted areas in their habitat. Fragmentation may be derived from a large developed area, but even smaller disruptions such as roads may deter animals. Fragmentation thus inhibits the intermingling of existing populations and increases edge.⁶⁹

Pieces of land large enough to provide a representative ecosystem are unlikely to be held by individual landowners, and parks must be created and maintained by government. However, the larger matrix in which such reserves and parks are embedded must also be considered. The

⁶⁴ M. Hunter, *Fundamentals of Conservation Biology* (Blackwell Science: 1996).

⁶⁵ *Ibid.*

⁶⁶ *Ibid.*

⁶⁷ B. Paton, “The Effect of Edge on Avian Nest Success: How Strong is the Evidence?” (1994) 8 *Conservation Biology*, 17-26.

⁶⁸ R. Bierregaard, “The Biological Dynamics of Tropical Rainforest Fragments” (1992) 42 *Bioscience*, 859-866.

⁶⁹ *Supra*, note 64.

boundaries of reserves are permeable to species and activities and creating buffer zones between green space and industrial areas is an important contribution to maintaining the health of an ecosystem. The ideal conservation plan would be designed as a circle with the buffer zone appearing as concentric rings of decreasing naturalness.⁷⁰ A buffer zone would provide a gradient of activities, with the least harmful occurring closest to a reserve. Approaching stewardship and conservation covenants from a perspective of “buffering” a particular wilderness area offers a large range of options to landowners who would like to participate in conservation without banning all human activity.

The second project which is well suited to conservation by stewardship is protection of linear strips of land, to provide corridors or guard a riparian zone. When a habitat becomes fragmented, strips of wilderness or “corridors” can be used to allow movement of animals between separated populations.⁷¹ The ideal corridor system would be able to accommodate the natural movements of wildlife. This includes not only their daily movements, but also provides habitat for those animals with seasonal migrations and allows dispersal of offspring. Riparian zones would also benefit from protection of linear strips of land. Again, the greater the natural area around a river or water body, the healthier it is expected to be. An ideal riparian zone would have a complete vegetative cover extending up each side to the ridge of the watershed. Failing this, the extension of coverage to one ridge should be considered. However, even a few metres of natural vegetation between a riparian zone and development will provide needed cover for fish and birds. Landowner contact programs linked with voluntary stewardship agreements may provide the best strategy for the creation of corridors which would involve the cooperation of a large number of landowners. Covenants on the other hand, are only practical when landowners hold large pieces of property.⁷²

Boundary demarcation plays an important role in protecting and maintaining covenants, but

⁷⁰ *Ibid.*

⁷¹ *Ibid.*

⁷² S. Inglis, P. Thomas and E. Child, *Protection of Aquatic and Riparian Habitat on Private Land: Evaluating the Effectiveness of Covenants in the City of Surrey* (Department of Fisheries and Oceans: 1995).

creates a practical dilemma. For natural systems, the best type of boundary is a biophysical feature such as a ridge top, stream, or natural break in vegetation. Ideal buffer zones would create a gradient between natural areas and industrial ones. People, on the other hand, respond best to clearly demarcated boundaries, and these are also the easiest to enforce. A study of the effectiveness of conservation covenants in protecting riparian habitat in Surrey, B.C. indicated that fences along the covenant line were one of the most effective means to prevent encroachment.⁷³

Positive Restrictions

In 1994, the Land Title Act was amended to include both positive and negative restrictions on covenants. Although this legislation has not yet been used extensively, there are some important considerations for landowners if the ecological values of a piece of land are to be preserved.

Natural disturbances have been viewed in the past as being destructive to the well-being of an ecosystem. However, disturbances such as cyclical flooding or fires that initiate biological succession are often critical in maintaining the natural structure and function, and their suppression can actually degrade a resource.⁷⁴ There is an increasingly hands-off approach being applied in many parks in North America—the extent to which human interference is expected or allowed is still being debated and is something which may warrant outlining in a covenant. In addition, there is increasing recognition of traditional management systems that were used by indigenous peoples to cultivate and maintain the land. Since the interactions between human and ecosystem occurred over hundreds of thousands of years, it is reasonable to consider their actions as important pieces of the overall ecology of many areas.⁷⁵ Garry Oak ecosystems in particular—which are endangered and in poor health—are thought to require burning to increase production and restore many of the wildflowers and edible plants that once

⁷³ *Ibid.*

⁷⁴ *Supra*, note 64.

⁷⁵ B. Beckwith, “Traditional Management Systems” (1999) Environmental Studies Lecture, University of Victoria.

characterized Garry Oak meadows. Controlled burns are now being organized on Vancouver Island. Such maintenance would require detailed coverage in an conservation covenant or agreement.

Control of both exotic and overabundant native species also requires careful consideration.⁷⁶ Many exotic plant species, such as English ivy and daffodils, were imported for their aesthetic value and are prized by landowners. However, one of the many problems associated with exotic species is their tendency to overrun an area, destroying the habitat of the native species. If intrusion by exotics is compromising the ecological functions of an ecosystem, or is likely to do so in the future, provisions must be made to allow their removal, which may be costly and time-consuming. Removal is even more difficult if the foreigners are animals, such as the grey squirrel.

Similarly population control measures may be needed in the case of overabundant native species. Some of the most obvious examples of this problem occur when herbivore populations explode, in response to a lack of natural predators. This is a problem that is likely to occur on or near privately held lands, since large carnivores may not have a large enough range to survive, or may be targeted for removal by humans. Deer in particular may multiply to a point where the ecosystem can no longer maintain them and they begin starving to death in the winters, as occurs annually on Sidney Spit, off the coast of Vancouver Island. Human attraction to large animals makes this type of problem particularly sensitive.

Collecting Biological Information

It is essential to have good baseline information on an ecosystem/property for several reasons. Biological information is necessary to allow an organization to focus their attention on ecologically sensitive areas, or those areas with the most practical chance of successful conservation. Access to information is one of the main reasons that many landowners become

involved in landowner contact programs. Baseline data will provide a standard against which future monitoring will be measured.

In gathering biological data, researchers should take note of both physical environment and species. Biophysical information, based on factors such as soil and climate provides a more stable measure of environmental conditions. Species, even those that are initially dominant in an environment, are constantly changing due to selection pressures, habitat destruction, and even range shift as the climate slowly changes.⁷⁷ In terms of human interest and motivation, however, characterization of a species will be an essential part of any conservation study.

Drawing attention to flagship species can be a strategic way to advance the overall conservation of a sensitive ecosystem. Flagship species are those species that have public appeal and can be used to rally popular support. Good examples of flagship species include the grizzly bear and the humpback whale. Flagship species have been successfully used to protect larger ecosystems and their presence may be of great interest and a source of pride for private landowners. This approach does have several drawbacks, however. First, focusing conservation efforts towards one organism may make it harder to achieve adequate measures for less charismatic but equally important smaller species, such as insects and certain plants. Another difficulty with this approach is that larger animals which have the most human appeal typically require very large ranges, and may not be present on already fragmented or developed private land.

Keystone species are those which play ecological roles that are of central importance to a particular ecosystem. Removal of a keystone species will result in a disproportionately large decline in overall biodiversity.

Indicator species are particular species which are very sensitive to environmental changes.

⁷⁶ *Supra*, note 64.

⁷⁷ *Ibid.*

Their narrow ecological tolerance means that the general health of the indicator species can be used to assess the health of the ecosystem. A classic example of the use of indicator species is the impact of DDT on peregrine falcons which first alerted scientists to the damage being done. Unfortunately, identifying indicator species requires a detailed understanding of an ecosystem, which may not be feasible for all community groups or NGOs.

Stewardship Information

Many landowners lack not only the knowledge of conservation practices to effectively protect their land, but also the technical and legal knowledge. Therefore, some energy may be devoted to finding practical solutions for preserving conservation values. Some of the projects may be positive actions taken to augment preservation or restore habitat. For example, riparian habitat which has the vegetation removed may be enhanced by tree planting, re-sloping, or the placement of large evergreen boughs to deflect current and prevent erosion. Conservation groups may also have access to volunteers who are willing to work on restoration projects. Since many individuals breach covenants in attempts to enhance the aesthetics of their properties, support might come in the form of directing people towards local businesses that landscape using native vegetation. Providing alternative methods for achieving landowner goals could be an effective way to conserve land.

In addition, a handbook of conservation options may be a useful tool for many landowners and conservation groups. Several useful guides exist in B.C., including *Stewardship Options for Private Landowners* (Ministry of Environment, Lands and Parks), *Private Conservance Options: Riparian Zone Protection* (Turtle Island Group, 1995) and *Here Today, Here Tomorrow* (Findlay and Hillyer, 1994). In particular, the Island Nature Trust in Prince Edward Island made use of this type of tool and continue to educate communities by providing workshops, lecture series and awards ceremonies for the public.⁷⁸

Follow-Up

Follow-up work is an important aspect of stewardship or covenant agreements because it ensures that a relationship is maintained between landholder and conservation group. Although landowners are legally responsible for maintaining the regulations under the covenant,⁷⁹ ecological values are unique in that damage cannot be easily rectified through financial compensation. After old growth trees have been cut down, there is no amount of money that can restore a forest to its original state, even if new trees are planted. Likewise, after a stream has suffered pollution or habitat destruction, bringing salmon back cannot be achieved easily. Legal prosecution for breached covenants is expensive and time-consuming. It is therefore in everyone's best interest to avoid legal action by maintaining the landscape.

The study of covenants in Surrey, B.C. indicated that only a small number of landowners understood the implications of the covenants held on their properties.⁸⁰ It is thus essential that new landowners are aware of their responsibility and develop a relationship with the covenant holder. Regular checks of covenant holders, ideally in the form of annual monitoring, would provide the opportunity for ongoing landowner support.

Monitoring

Monitoring is an area which has not been well developed with regards to private stewardship. This is not surprising since monitoring is time-consuming and costly; however, a suitable monitoring program is necessary for the long-term viability and enforcement of covenants and other agreements. In the case that a covenant has been violated, data from monitoring may be needed as evidence. Alternatively, information collected via monitoring may suggest new management practices, thereby allowing landowner and covenant holder to make mutually

⁷⁸ *Supra*, note 61.

⁷⁹ B. Findlay and A. Hillyer, *Here Today, Here Tomorrow* (West Coast Environmental Law Research Foundation: 1994).

⁸⁰ *Supra*, note 72.

agreed upon changes to the covenant. Finally, a regular monitoring system can help maintain a positive, supportive relationship between covenant holder and landowner. Any monitoring program should be formalized within a covenant with standards for reporting, defined responsibilities for each party and firm schedules.

Ecosystems are not static entities and therefore it is not possible to identify a single organizational state which is equivalent to integrity. Munn suggests that the best approach to preserving the integrity of an ecosystem is to focus on the existing biological processes rather than on a particular biological state.⁸¹ Biological integrity in itself is difficult to define and measure. Karr and Dudley have provided one such definition:

Biological integrity is the capability of supporting and maintaining a balanced, integrated, adaptive community of organisms having a species composition and functional organization comparable to that of the natural habitat of the region.⁸²

For any monitoring program, environmental indicators must be selected with care. There are and will continue to be significant deficiencies in our knowledge of ecosystems. Without resources to exhaustively quantify all relevant features of an ecosystem, it is necessary to select a system that is easily and reliably measured. A good monitoring system is capable of providing continuous assessment of an ecosystem from an unstressed to a stressed state. Given the variability in response to of different species to changes in environmental conditions, a comprehensive monitoring system should not rely on any single criterion or species, but rather a suite of factors should be measured.⁸³ Finally, an effective biological monitoring system will allow managers to detect danger early, bearing in mind natural variability. It may be difficult to distinguish relatively rare but natural events such as droughts or population fluctuations from

⁸¹ R.E. Munn, "Monitoring For Ecosystem Integrity" in S. Woodley, J. Kay and G. Francis (eds.), *Integrity and the Management of Ecosystems* (St. Lucie Press: 1993) 105-116.

⁸² J.R. Karr and D.R. Dudley, "Ecological Perspectives on Water Quality Goals" (1981) 5 *Environmental Management*, 55-68.

⁸³ S. Woodley, "Monitoring and Measuring Ecosystem Integrity in Canadian National Parks," in S. Woodley, J. Kay and G. Francis (eds.), *Integrity and the Management of Ecosystems* (St. Lucie Press: 1993) 155-176.

long-term changes.⁸⁴ It is therefore useful to incorporate any available historical data into assessments and, where possible, look at events over a long time-frame. Where possible, the measures used should have a defined mean and variance to account for natural fluctuations.

Suites of indicator species should include species which perform diverse biological functions, since different groups will likely respond to the same environmental stress in different ways.⁸⁵ Changes in the status of indicators, such as presence, abundance and health, can provide measurable assays and should provide early warning of environmental change. A comprehensive monitoring program would include a selection of indicators that collectively represent different levels of biological organization such as populations, species, communities and ecosystems.⁸⁶ However, this may not be desirable or necessary on privately held land.

There are many useful criteria which can be used for monitoring the integrity and health of an ecosystem and its populations. A few examples are listed below; however, each stewardship situation will have a unique set of goals and resources from which to work, and these factors will play a major role in defining an appropriate monitoring program.

Primary productivity is the amount of organic matter produced by biological activity per unit area and time. For example, pine forests demonstrate stunted needle growth in response to environmental stresses. In aquatic systems, this may appear in reverse, where increased availability of organic nutrients from fertilizers or phosphorous pollution can increase the growth of aquatic plant life. This process speeds aging or “eutrophication” of lakes and other water bodies, since dead plants will decay, raising sediment levels, and smothering other life forms.⁸⁷ Nutrient cycling generally decreases in response to environmental stress. In forests which have been subjected to logging, loss of nitrate, calcium and potassium may be measured in stream

⁸⁴ *Supra*, note 81.

⁸⁵ C. Kremen, A. Merenlander and D. Murphy, ‘Ecological Monitoring: A Vital Need for Integrated Conservation and Development Programs in the Tropics’ (1994) 8 *Conservation Biology*, 388-397.

⁸⁶ *Ibid.*

⁸⁷ *Supra*, note 83.

water run-off.⁸⁸ Naturally occurring decomposition may be slowed in stressed conditions. The numbers of decomposer organisms and their activity may measurable decline.⁸⁹ Diversity of species may change in response to environmental pressures. In order to effectively use this type of measurement, the taxa must be carefully chosen for each particular ecosystem. In addition, native species should be considered separately from introduced species, since a healthy ecosystem will resist introduction of foreign species. Loss of diversity may be apparent as “retrogression” or reversion to an earlier or simpler stage in biological succession.⁹⁰ Population fluctuations are most useful when viewed in conjunction with historical data, since natural variation is expected. Large changes in size of populations may be an early warning sign of environmental stress.⁹¹ Prevalence of pests is expected to rise in environments under stress, since the healthy and diverse ecosystems tend to be relatively resistant.⁹²

Ultimately, the quality of monitoring may determine the success with which the stewardship or covenant agreements protect natural spaces. A successful program will reflect—and state in clear, concrete terms—the needs, goals and resources of the individual landowners and the conservation group.

⁸⁸ *Ibid.*

⁸⁹ *Ibid.*

⁹⁰ *Ibid.*

⁹¹ *Supra*, note 81.

⁹² *Ibid.*