

Chapter 9

Prescribing Solutions: Non-Regulatory Tools

9.1 Introduction

Non-regulatory tools, discussed in this chapter, provide important solutions to protecting and managing wetlands, and they comprise a key component of any wetland protection program. Developing non-regulatory approaches is a part of Step 2, Prescribing Solutions, in the four-step framework discussed in this volume (Figure 9-1).

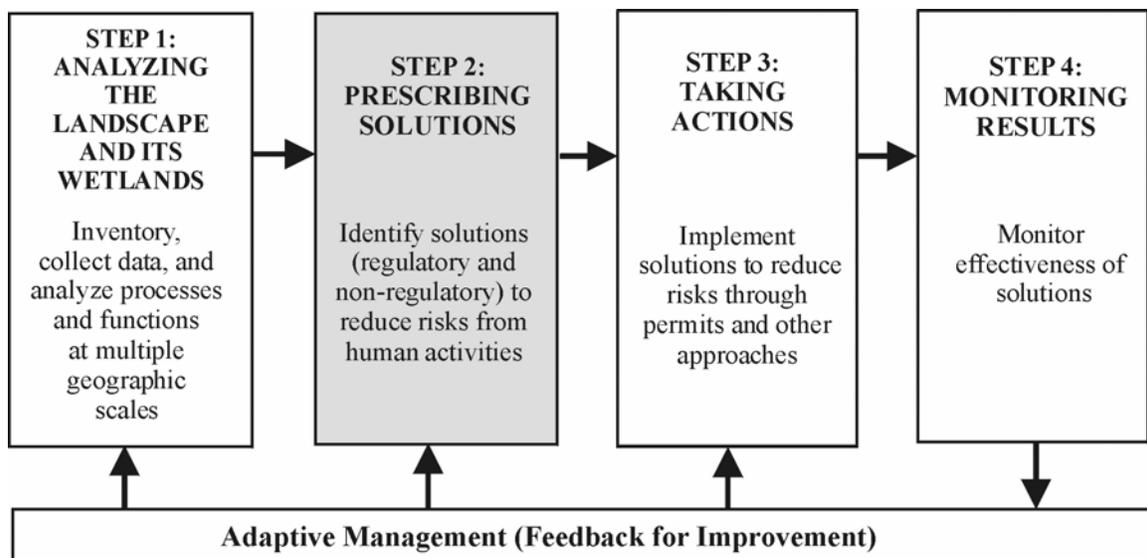


Figure 9-1. Developing non-regulatory tools is part of Step 2 in the four-step framework for protecting and managing wetlands (shaded box).

Non-regulatory activities are voluntary in nature and complement land-use regulations used to protect and manage wetlands. As mentioned in Chapter 8, regulations alone cannot adequately protect wetlands. For example, regulatory tools, such as buffers and compensatory mitigation, establish standards for protecting and managing resources when a land-use action is proposed on a specific site. Non-regulatory approaches, including preservation, conservation, restoration, and incentives, can be used on both a site-specific basis and can be applied to an entire management area.

In addition, non-regulatory activities, as a part of a wetland protection program, are important because they:

- Reduce risk of loss and/or degradation of critical wetlands (*Critical* in this context means those wetlands that provide essential contributions to the landscape or to society)

- Provide options for landowners and governments in the early stages of making decisions about the conservation of landscape processes and wetlands (see Section 9.2 for a description of “conservation”)
- Can address large areas of the landscape and thus be effective in protecting landscape processes and wetland functions
- Meet the needs of those landowners who prefer a voluntary option
- Provide a proactive approach to improve landscape conditions that incorporates willing landowner and community participation
- Help to achieve no net loss and make eventual gains in wetland function and acreage
- Have financial and tax benefits

Therefore, the goal of protecting wetland functions and values, and associated landscape processes, is best accomplished when using wide range of activities: An effective protection program needs to include both regulatory and non-regulatory components.

Developing and incorporating non-regulatory tools can occur at any stage of a jurisdiction’s planning process. However, non-regulatory efforts will be most effective if they are integrated in the early stages of planning; for example, during the formation of a Green Infrastructure plan (Chapter 6). During these early stages, the information from a landscape analysis (Chapter 5) can be used to help the jurisdiction assess options for maintaining landscape processes into the future and to decide which options provide the most desirable outcome. The non-regulatory component of a wetland protection program can then be used as a means to help achieve this outcome.

9.2 Three Categories of Non-Regulatory Actions to Consider

Non-regulatory actions fall into three general categories:

- **Preservation** provides a way to set lands aside so that they are not actively used for human activities
- **Conservation** allows for human activities but limits their impacts by applying best management practices and other measures to protect resource functions
- **Restoration** serves to return the land to a condition in which it performs functions and contributes to landscape processes in a manner similar to past conditions. For wetlands, the key step is re-establishing the appropriate water regime

Preservation, conservation, and restoration are actions that are used in both regulatory and non-regulatory contexts. In the regulatory context, these terms may represent actions that are more limited in scope. For example, preservation may be defined narrowly. As described in the recent regulatory guidance by Ecology and the U.S. Army Corps of Engineers (April 2004), preservation can be used only under specific conditions such as preserving a wetland that is under immediate threat. Comparatively, in a non-regulatory context, preservation can be applied whenever a particular wetland is considered of high importance thus warranting permanent protection to remove any future threats.

As previously mentioned, conducting a landscape analysis (see Chapter 5) is very helpful in determining how each of these types of non-regulatory actions can supplement regulatory tools to ensure that landscape processes are maintained. Generally, all three may be desirable for maintaining landscape processes. However, some jurisdictions may find that only one or two of these actions will be the primary focus, while others may incorporate all three.

Each of these non-regulatory actions can be used at various locations within a jurisdiction, and a landscape analysis clarifies which non-regulatory action is most relevant to respective locations. For example, a particular sub-basin may be dominated by agriculture and have water quality problems but have a high potential for water quality improvement if wetlands were restored. In this case, the focus of non-regulatory efforts could be improving *conservation* through application of best management practices in agricultural areas while initiating *restoration* of wetlands where landowners are willing. In another sub-basin with high growth rates, the need might be to use *preservation* of wetlands that provide high habitat functions at the fringe of an urban growth area.

Understanding the landscape processes therefore helps with the design of non-regulatory actions and implementation through non-regulatory tools. Appropriate tools can then be applied broadly throughout the entire management area or selectively in the areas in which they are most relevant.

A brief overview of preservation, conservation, and restoration in the non-regulatory context is provided below. The specific tools that can be used to implement these non-regulatory actions are discussed in more detail later in this chapter and in the chapter on implementation (see Chapter 11).

9.2.1 Preservation

In their paper on *Conservation of Biodiversity in a World of Use*, Redford and Richter (1999) state:

(1) different degrees of human use or alteration result in differential conservation of biodiversity components, (2) some components and attributes of biodiversity are more sensitive to human use than others, and (3) only extremely limited use or virtually no alteration will protect all components.

Thus, a key role for preservation is to permanently protect those areas that are so highly sensitive to use, so rare or irreplaceable, or so critical to landscape processes that their degradation or loss cannot be afforded.

Preservation employs the permanent protection of land through either:

- Full-fee, title ownership of all property rights
- Partial ownership of the development and/or use rights to the land through a conservation easement

Conservation easements serve to protect the land into the future (often in perpetuity) by restricting the property deed with conditions for preservation. A “holder” of the conservation easement (such as a land trust) is designated to enforce the terms of the easement through time. Short of full-fee purchase, conservation easements are the strongest legal protections available for land preservation.

9.2.2 Conservation

As previously mentioned, conservation allows for the active use of the land while maintaining landscape processes over time. Conservation applies to areas used for resource production. For example, owners of land used for agriculture and forestry are encouraged to apply best management practices such as riparian and wetland buffers.

Conservation also applies to urbanizing areas where changes in land use might adversely impact a resource. Conservation of wetlands is a concern in urbanizing settings where adjacent use by humans affects wetlands and buffers. Improved management practices on the part of homeowner associations, private landowners, and land developers can help to reduce impacts. Education and outreach are vital in promoting the use of appropriate conservation tools.

9.2.3 Restoration

Restoration provides a method for recovering landscape processes and wetland functions that have been lost or degraded. While mitigation actions in a regulatory context compensate for the loss of acreage or functions as a result of a current development activity, they are not designed to recover wetland acreage or functions that have been lost in the past. However, voluntary (non-compensatory) restoration can restore acreage and functions lost as a result of past land uses.

Some types of wetlands have been more altered than others due to the relative ease of draining and converting them to other uses, as well as other factors. The net result has been a homogenization (i.e., reduction in diversity) of the remaining wetlands and a shift in the relative proportion of habitat types and functions performed (see Chapter 4 in Volume 1). Wetlands have also been affected in terms of their distance from each other, the connectivity of habitat between them, and their location, distribution, and position in the landscape. This affects the dispersal of animals and plants between wetlands and how wetlands affect water quality, flood attenuation, and hydrologic processes (Bedford 1999,

citing Brinson 1993). These and other factors need to be considered as part of non-regulatory, wetland restoration efforts.

9.3 Fiscal Benefits of Using Non-Regulatory Tools

One of the most important considerations in using non-regulatory actions and tools in a wetland protection program is fiscal savings. Fiscal savings fall into two categories: 1) the efficiencies resulting from the maintenance of services performed by “green infrastructure”, and 2) the savings gained by implementing actions at the optimal geographic location to effectively address problems in the landscape or watershed.

As discussed in Chapter 6, landscapes and their wetlands provide an array of green infrastructure services (e.g., flood attenuation, improvement in water quality, the recharge of water, etc.) Studies have indicated that protecting existing green infrastructure, instead of having to engineer and build “grey infrastructure” to replace the green infrastructure, actually saves money (see Chapter 6). For example, despite the common perception that non-regulatory programs are too expensive, money spent to purchase land for permanent preservation and thus protect its functions and services can result in a significant financial savings over the long term. Therefore, when considering the goals of non-regulatory efforts, the jurisdiction should understand these financial implications.

Cost efficiencies are increased when the non-regulatory actions and the funds to implement such actions are targeted to the ideal or optimal locations, such as “problem” areas within sub-basins or watersheds which have been identified using a landscape analysis. (The analysis can also help identify the appropriate non-regulatory actions to use to help correct the problems.) Thus, targeting the right action in the right place is a wise and effective use of funds. Also, prioritizing which locations need attention first helps to minimize further loss of landscape processes, thereby retaining existing green infrastructure.

An active education initiative that includes fiscal benefits is essential. As previously mentioned, it is important that citizens and political leaders are aware of fiscal benefits. They should understand that short-term costs to preserve land, and any loss of tax revenues on that land, will be offset over the long term by savings from the functions and services the land provides. In addition, it is also important to know that the cost of providing built infrastructure can out pace tax revenues generated by new development. Conveying this information to local leaders and citizens increases understanding and promotes support for non-regulatory programs.

Jurisdictions in several parts of the country have conducted fiscal analyses to document the cost savings that a non-regulatory approach can provide. Further information on these savings can be found in Chapter 6 and Appendix 6-A.

9.4 Important Considerations When Incorporating Non-Regulatory Tools

When establishing the non-regulatory components of a wetland program, developing the overall vision and the goals to be accomplished should be the first step. A clear foundation on which to build the non-regulatory effort will already have been laid if a Green Infrastructure plan has been prepared or the community has engaged in an Alternative Futures analysis (see Chapter 6). From there, the identification of the locations and type of actions (conservation, preservation, and restoration) for specific sites can readily be determined.

In addition to the vision and goals, several practical considerations must be addressed to initiate the non-regulatory components. The following are some essential parts of an effective non-regulatory effort:

- Staffing (e.g., coordinator, support staff, staff for site management, etc.)
- Identifying, mapping, and prioritizing where non-regulatory tools will be applied
- Creating partnerships with organization, government agencies, and others to help sponsor local projects
- Identifying a recipient to hold and manage land
- Obtaining funding for local actions
- Providing incentives to encourage participation by landowners
- Educating and involving the public and providing technical outreach to the public and landowners
- Monitoring project sites and the overall success of the non-regulatory actions

Most of these are discussed in the implementation portion of this document (see Chapter 11). However, an overview of key funding mechanisms and landowner incentives are provided in Section 9.4.1 in this chapter.

For more details on funding and incentives, as well as complete coverage of landowner conservation tools, please refer to the *Exploring Wetlands Stewardship Guide: A Reference Guide for Assisting Washington Landowners and Communities* (Rubey 2004). <http://www.ecy.wa.gov/biblio/96120.html> or <http://www.ecy.wa.gov/pubs/96120.pdf>

9.4.1 Funding Mechanisms

Purchasing land to preserve it, whether in *full-fee title* or *less-than-fee development rights*, requires some form of local revenue. Full-fee title (also *fee-simple*, *full purchase*, or *full-interest*) is the acquisition of all rights to a parcel of land, including development rights, mining rights, timber rights, etc. *Less-than-fee title* (or *partial-interest purchase*) is the acquisition of some of the rights to a parcel of land but not all (for example, the acquisition of development rights only).

Common forms of financing for preservation (and other conservation measures) include property taxes, sales or use taxes, real estate transfer taxes, impact fees, special assessment districts, general obligation bonds, and revenue bonds. The ability to raise local revenue for conservation allows the money to be used as a match to obtain additional funds through state or federal grants, thus enhancing the potential for funding local conservation.

In *Local Greenprinting for Growth*, the Trust for Public Lands and National Association of County Officials (2002) provide the following table which summarizes common sources of conservation financing with a list of pros and cons for each.

Table 9-1. Common sources of financing for conservation.

Financing Source	Definition	Pros	Cons
Property tax	Tax on real property paid by commercial and residential property owners	Steady source of revenue Relatively easily administered Tax burden is distributed Small increases create substantial funding Popular with voters when focuses on compelling needs of land conservation	Competition for other public uses Overall concern among taxpayers about higher rates
Sales & use tax	Tax in sales of goods and services	Relatively easy to administer Low reporting costs Can generate large sums, even at small tax levels May be paid in part by out-of-town visitors Can tap into tourism profits generated by open space amenities May include exemptions such as food & medicine	Revenues can drop when economy slows Considered regressive

Financing Source	Definition	Pros	Cons
Real estate tax	Tax on the sales of property paid by either the buyer or seller at time of transfer	Funds can be substantial Connection between taxing new development and protecting open space	Initial opposition from real estate/development interests can make passage difficult Less predictable revenue stream
Impact fees	One-time fee paid by developer to offset costs of infrastructure needed for new development	Connection between taxing new development and protecting open space	Parks and open space projects might require direct link to new development
Special assessment district	Special tax district for area that benefits from an open space area	Users finance acquisition and management Predictable revenue stream Accountability in government spending Sense of ownership of and responsibility for area parks and services Can establish in small increments May be able to set own election date and process	Possibly time consuming to implement Overall concern among taxpayers about high rates
General obligation bond	Loan taken out by a city or county against the value of the taxable property	Allows for immediate purchase of open space, locking in land at current prices Distributes the cost of acquisition over time	Extra costs associated with the interest accrued through borrowing Voter approval required, sometimes by supermajority levels
Revenue bond	Loan paid from proceeds of a tax levied for the use of a specific public project or with proceeds of fees charged to those who use the financed facility	Not constrained by the debt ceilings of general obligation bonds Voter approval rarely required	More expensive than general obligation bonds

Source: Trust for Public Lands and National Association of County Officials (2002).

9.4.1.1 Common Forms of Conservation Revenue in Washington

In Washington, one of the most common forms of conservation revenue comes from the Conservation Futures Levy. RCW 84.34.200 and RCW 84.34.230 established the authorization for any Washington county to administer a real property tax in the amount of \$0.0625 per \$1000 of assessed valuation. This provision for conservation fund-raising at the local level is quite unique in the country and presents an opportunity for local communities to acquire and preserve wetlands and other areas that provide green infrastructure services. However, it is currently used by only a third of the counties in the state. Those counties that are using it have been quite successful, over the years, in preserving important lands within their communities.

General obligation bonds and impact fees have also been frequently used by local jurisdictions in Washington for conservation purposes. General obligation bonds are generated by local governments, and the revenue can be used to finance conservation activities, with the principle repaid over time. Impact fees are charged when a site is developed, and the fees can be dedicated to finance conservation of open space to compensate for losses caused by the development.

9.4.1.2 Land Banking

Land banking is a tool that raises funds from land acquisition by placing a tax on real estate sales within the jurisdiction. It was first initiated in Massachusetts in 1984. In 1990, Washington State authorized a real estate excise tax under RCW 82.46.070 for the establishment of land banks. This authority allows counties to impose a property transfer tax where tax proceeds are used exclusively for fee-simple or less-than-fee acquisition and/or maintenance of conservation areas. Initiated either by resolution of the county legislators or by the public through a petition, the excise tax is approved by citizen vote.

Only one Washington jurisdiction, San Juan County, has established this form of tax revenue. The San Juan County Land Bank, established in 1990, has successfully completed conservation easements on 17,000 acres and fee purchase on approximately 900 acres. To date, they have received between \$18 million and \$19 million in revenue. After its original authorization period of 12 years, the program was extended following active campaigning by local real estate agents. The land bank was reauthorized with a 74% approval by county residents (Shaffer, San Juan County Land Bank, personal communication 2003).

Communities in Cape Cod are also moving toward establishing land banks to address growth while protecting their resources. This is discussed in a paper by Cummiskey (2001) in which the author describes the development of a land bank in Cape Cod during the late 1990s. Cummiskey states that despite the existence of numerous tools such as building restrictions, zoning bylaws, subdivision regulations, and historic district designations, accelerating development continued to threaten shorelines and other resources. This necessitated the addition of other management tools to protect the

lifestyle and natural qualities of Cape Cod. The author points out that more cities and towns in Massachusetts and other states are considering land banks as growth management tools to address coastal development, as well as urban, suburban, and rural sprawl.

9.4.2 Landowner Incentives

It is important to have a broad range of tools available to address the needs of each individual landowner. Tools that incorporate some form of market-based incentive help to motivate conservation. With this in mind, local governments can conduct full-interest and partial-interest land purchases (conservation easements), and/or they can establish tax-based incentives and incentive zoning with tradable development rights and cluster or higher density alternatives. As previously mentioned, it is best to institute these tools early in the planning process to allow for their optimum use. A few are discussed in this section as well as Section 9.4.3, Incentive Zoning and Regulation.

9.4.2.1 Incentive-based Tools: Open Space Current Use Taxation

“Land taxes often act as a disincentive to landowners wishing to conserve natural areas” (Edwards 1994). In *Developing America’s Natural Areas Market*, Edwards states that government can assist in conservation by removing existing disincentives to private protection of land and by assisting in developing a market for areas that are maintained as “natural areas” rather than relying on private conservation programs alone.

Washington’s Open Space Current Use Taxation (CUT) Program (RCW 84.34) removes such disincentives. It allows local governments to offer landowners voluntary enrollment of undeveloped property in their county’s program. The open space element of the CUT program provides reductions in property tax for the conservation of features of natural resources considered of value to the community at large. The optional Public Benefit Rating System (PBRs) allows the local jurisdiction to identify which “features” of natural resources that will be considered in the program, targeting those that are deemed most beneficial to the community. In the PBRs, the specific criteria related to these features are clearly defined and are used to score a property. These criteria assess its eligibility for enrollment in the CUT program and determine the level of tax reduction. The PBRs therefore allows flexibility to shape the CUT Program to protect landscape processes by targeting features that help maintain those processes.

Applying the Public Benefit Rating System as a Watershed Action Tool (Rubey 1999) provides guidance for local jurisdictions who wish to use the PBRs more strategically. The guidance includes specific criteria to identify properties containing natural resource features that will help ameliorate water quality problems, flooding, habitat loss, etc.

Using the PBRs criteria can even be tailored to address the needs of different sub-basins within the overall jurisdiction. A tailored PBRs is an ideal tool when implementing Alternative Futures or Green Infrastructure plans.

9.4.2.2 Other Incentive-Based Tools

There are other incentive-based options, listed below and discussed briefly, from which landowners can benefit by protecting and enhancing ecosystems including wetlands:

- Transferring property title with compensation
- Retaining ownership and managing the property
- Conservation in the context of development (see Section 9.4.3)

The reader is referred to *Exploring Wetlands Stewardship, A Reference Guide for Assisting Washington Landowners and Communities* (Rubey 2004) for a detailed discussion of these options, as well as the other conservation and stewardship issues. For example, Rubey (2004) covers the grant programs available to assist implementing preservation and restoration projects. The document also includes a complete listing of state and federal programs, with many local programs, as a resource to correspond non-regulatory wetland projects with potential funding.

Transferring Property Title with Compensation

Transfer of property title with compensation is used in the context of funding mechanisms for the purchase of property title. There are numerous non-regulatory tools available which can be employed to bring a purchase of land to closure. These include bargain sales, installment sales, land exchanges, options to buy, reserved life estate, right of first refusal, self finance, and tax deferred exchange. *Transfers of title without compensation* would include different forms of donations such as bequest, leaseback, outright, and reserved life estate or remainder interest.

Retaining Ownership and Managing the Property

A landowner can retain ownership and management of the property while providing conservation through a *conservation lease*. When purchase of property and/or a conservation easement (which provide permanent protection) are not available or acceptable to a private landowner, another less-permanent option is a conservation lease (also called a *resource conservation agreement*). The conservation lease offers tax relief or a conservation management payment as the incentive for conservation.

Conservation leases are often a preferred approach for agricultural or timber landowners. Main et al. (1999) point out that the system of taxation in the United States discourages agricultural landowners letting lands remain fallow when they are marginal for agriculture (e.g., wetlands), thus fueling the conversion of wetland habitats and resulting in loss or fragmentation. A conservation lease can offer some compensation to these landowners for conserving lands, rather than using them as marginal farmed lands.

Other options for retaining ownership with conservation are mutual covenants, open space current use classification, and undivided interest. As mentioned previously, more details on all of these tools are provided in *Exploring Wetlands Stewardship, A Reference Guide for Assisting Washington Landowners and Communities* (Rubey 2004).

9.4.3 Incentive Zoning and Regulation

There are also some tools that provide conservation incentives to landowners within the context of regulating development. *Incentive zoning* operates within the regulatory component of an existing protection program to influence development toward preservation of open space. One example is clustered development. Clustered development requires that development be placed on a small portion of the parcel, thereby retaining the balance as open space. Incentives for denser development of up to 20% have been allowed in some communities where a larger number of lots than usually allowed are exchanged for dedicating additional open space (Smart Growth Network 2002).

The transfer of development rights (TDR) is also frequently considered. Basically, TDR moves the allowed rights of development from a less desirable site (with higher resource functions or values) to a less sensitive site (more suited to development). A strong real estate market is necessary to fuel the transfer, and very abundant and uncontroversial sites for the transfer (receiving sites) must exist. Also, the zone proposed for preservation must have comparatively lower activity in regard to the real estate market. For example, McGilvray et al. (1985) found that saltmarsh lagoons in coastal communities were hard to preserve using TDR because of the high property values associated with ocean views.

Brabec and Smith (2002) studied TDR, purchase of development rights (PDR), and cluster development in the eastern United States in regard to fragmentation in agricultural lands. They found that TDR and PDR worked best for maintaining viable agricultural practices and preventing isolation and reduction in size. Because the area they studied had a strong transfer market, the TDR tool performed well. The TDR resulted in the aggregation of 91% of the parcels into protected areas with an average size of 465 acres. The PDR programs aggregated 75 to 88% in the various communities studied. With the cluster program, 36% of the sites were aggregated (64% isolated) and averaged only 30 acres in size.

Avoiding fragmentation is a key aspect of any conservation strategy, so this study provides valuable insights regarding the potential of these tools for wetland applications. The analysis and comparison of these three incentive-based, regulatory tools reinforces the importance of using and coordinating a variety of non-regulatory and regulatory tools to achieve optimal results (Brabec and Smith 2002).