



# Chapter 5

## Using Local Land Use Planning Tools For Wetland and Riparian Protection

The previous chapters describe different aspects of conservation programs. This chapter describes the specific land use tools available to protect streams, rivers, riparian areas, and wetlands. The strengths and weaknesses of each tool are described so that decision makers will understand the level and effectiveness of resource protection provided by the tool. Case studies are highlighted with examples of how tools were used in Montana to achieve conservation goals. Contact information is provided with each case study so that readers can obtain additional information. Appendix I contains a summary of the case studies used in this chapter, and provides a description of the diverse ways these tools have been used in Montana. For information about how tools in this chapter have been enacted by local governments not featured in this publication, contact local planning offices. Additional protection tools and resources, not administered by a municipal or county government, appear in Chapter 6. The local land use tools are organized in the following way:

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### Growth Policy Plans (Comprehensive Plans)

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Growth policy plans have been known in the past as “comprehensive plans,” “master plans,” or “land use plans.” The terms “growth policy plan,” “growth plan,” or “plan” are used here.

**Purpose:**

To clearly define the land use planning goals, policies, and plans of a community or county to guide growth

and development. The growth policy plan is used as a guide and reference when elected officials are faced with development issues.

**Who Enacts This Tool:**

Growth policy plans are prepared by a local planning board, which recommends the proposed plan for adoption by the governing body. The plan can then be adopted, modified, or rejected by the local governing body. Governing bodies are also responsible for enforcing the plan.

**Authority for Tool:**

General authority comes from Montana's Growth Policy statutes (Title 76, Chapter 1, Part 6, Section 601, MCA).

**How it Works:**

A growth policy plan acts as a planning guide, outlining the vision for the community and its development preferences. These plans must address specific elements regarding how the entire area will grow and function, including community goals and objectives; a plan for infrastructure development and maintenance; and information describing local services, transportation, parks and recreation, natural resources, and housing. Because they are the first step towards land use management at the local level, local land use regulations (e.g., subdivision regulations or floodplain regulations) are more effective when growth policy plans contain specific policies or direction to the governing officials and citizens. Importantly, growth plans must be adopted before zoning or development regulations (in the absence of a landowner petition) can be adopted; and these regulations must conform to that plan.

Most growth policy plans contain general statements about protecting natural resources and wildlife habitat. This general language can assist in the protection of wetlands and riparian areas since these areas are considered critical and important wildlife habitat. However, specific protection language greatly assists efforts to provide on-the-ground protection to sensitive areas. Therefore, it is recommended that protection of wetlands and riparian areas be specifically identified as a community goal in the plan. This language will provide direction for other land use regulations adopted by the community. It also gives citizens an important role—to urge the planning board,

its staff, and elected officials to make sure development follows the adopted policy.

The best opportunity to protect wetlands and riparian areas is when a growth policy plan is being drafted or updated. These plans must be reviewed at least every five years to determine if revisions are necessary. Some suggested language for a growth policy plan appears in Appendix II. In addition to specific protection language, it is also important to identify, as much as possible, where important wetlands and riparian areas occur in a community or county. If good mapping and data collection is done in the growth policy process, it should be easier to develop good land use regulations to evaluate development proposals for their effects on natural resources. Basic inventory work can be started by gathering existing data from maps, aerial photographs, and inventories (*see Appendix III*).

**Strengths:**

Growth policy plans help to clarify, give direction to, and integrate all levels of a local government in all land use planning decisions. Because all other planning done in the community or county uses the growth policy plan as a guide, a good plan can greatly increase the effectiveness of other planning tools and regulations, such as zoning and subdivision regulations. If wetlands and riparian areas receive recognition as important natural resources deserving protection in this document, governing officials are more easily able to justify conservation measures in land use regulations.

**Weaknesses:**

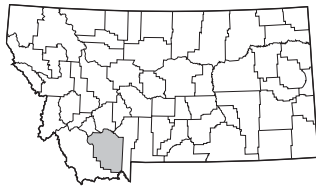
Growth policy plans are only guiding documents. Consequently, by themselves, growth policies cannot protect wetlands or riparian areas. A plan written in generalities is subject to interpretation, and may cause people to have differing views on implementation. Instead, a policy should contain specific language protecting wetlands and riparian areas, as well as information or maps about where critical areas are located. It should be noted that many Montana counties do not have growth policy plans, and of the counties with policies, many are inadequate or outdated.

In these situations, citizens may be limited in their ability to protect critical areas from development. Finally, local elected officials can ignore growth policy plans in their land use planning decisions.

## Montana Case Histories:

### 1. Madison County

One of the goals in the 1999 Madison County Comprehensive Plan is to “protect our river corridors” by keeping

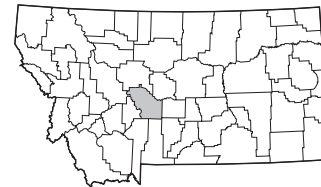


“development out of the floodplain and riparian areas.” The origins of this language date back to a 1983 study done for the county, which delineated the Madison River Corridor and proposed several voluntary river management measures, in response to concern that “development along the Madison River will adversely affect the important economic and recreational opportunities that so many people depend on...” By setting the stage for protection of riparian areas through specific language in its comprehensive plan, Madison County was in a position to implement this goal, in part, by county subdivision regulations that establish construction setbacks from water bodies (*see Madison County 5-10*). The Comprehensive Plan encourages voluntary land conservation measures targeted at “watershed protection including river corridors and riparian areas.” The Plan also recommends the formation of citizen task forces to work closely with riverfront landowners to consider river corridor zoning as a tool for managing development impacts. Two task forces (Big Hole and Ruby) are currently exploring a variety of river cor-

ridor protection measures. **For more information**, contact Doris Fischer, Madison County Planner, P.O. Box 278, Virginia City, MT 59755; (406) 843-5250; e-mail: planner@3rivers.net.

### 2. Meagher County

Development Policies in the 2000 *Overall Economic Development Plan and Growth Policy* adopted by Meagher County include:



- “Wells and septic tanks must be set back at least 100 feet from streams, lakes and identified 100-year floodways, and 300 feet from identified riparian areas.”
- “For new developments, including subdivisions approved under Meagher County Subdivision Regulations: a) all non-agricultural structures must be set back 200 horizontal feet from the high water marks of streams; and b) non-agricultural structures must be set back 300 feet from delineated riparian areas and wetland areas.”

These statements in the growth policy plan have allowed Meagher County to protect riparian and wetland areas through setbacks for wells, septic tanks, and non-agricultural structures in their subdivision regulations. **For more information**, contact Jim Richard, Box 749, White Sulphur Springs, MT 59645; (406) 547-2289.

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## County or Municipal Zoning

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### Purpose:

To promote the public health, safety, and values in a community by designating zones where certain types of developments can occur, and setting requirements that new development must meet.

### Who Enacts This Tool:

City or town councils initiate and enforce municipal zoning within city limits. Additionally, municipalities are authorized to extend city zoning outside municipal boundaries. County commissioners adopt and en-

force zoning regulations outside of municipalities.

### Authority for Tool:

Cities and towns adopt zoning regulations under the Municipal Zoning Act (Title 76, Chapter 2, Part 3, MCA). Counties may adopt zoning through county-initiated regulations under the County Zoning Act (Title 76, Chapter 2, Part 2, MCA). Additionally, counties may also adopt zoning under regulations initiated by landowner petition (*see Planning and Zoning Districts, page 5-5*).

### **How it Works:**

County and city governments may adopt regulations to separate land uses into districts within their jurisdictions. With county and municipal zoning, a growth policy plan must be adopted for the entire jurisdiction before any zoning regulations may be created. Likewise, adopted zoning regulations must comply with the growth policy plan. In municipalities, a zoning commission initiates drafting of a city or town zoning ordinances. In counties, the county planning board initiates county zoning. The zoning commission or county planning board recommends proposed zoning regulations to the elected governing body. After public hearings, the county commission or city council may adopt, modify, or reject the recommended regulations.

County or municipal zoning can protect wetlands and riparian areas through zoning by prohibiting development in identified areas; allowing only low-impact uses in identified areas; establishing setbacks for development adjacent to these areas; requiring that any development in or near one of these areas be designed to prevent or minimize impacts; and/or requiring that impacts to these areas be mitigated.

### **Strengths:**

Because adopting zoning regulations require extensive public hearings, this tool can foster public education opportunities and citizen support for protecting wetlands and riparian areas. A community can clearly buttress the values and goals contained in their plan through zoning regulations. In this way, a growth policy plan that specifically emphasizes protection of open space, wetlands, streams, or rivers, paves the way for zoning regulations that will support these community values.

### **Weaknesses:**

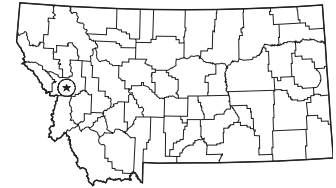
Zoning is not commonly used in Montana outside of incorporated areas. Where it is used, zoning rarely has been used to specifically protect wetlands or riparian areas. Additionally, if zoning regulations are poorly written or weakly enforced, their effectiveness can be undermined. A lack of public support for effective zoning regulations, especially in rural ar-

reas, is a political reality that may prevent local officials from adopting effective zoning regulations.

### **Montana Case History:**

#### **City of Missoula.**

In 1995, Missoula adopted zoning regulations that contain ecologically-based riparian resource protection standards. These standards apply to streams, lakes, wetlands, woody draws, and other bodies of water and include “an adjacent buffer area.” Buffer size is determined on a case-by-case basis, and is decided based on criteria on the impacts to wildlife habitat, water quality or quantity, fish, or other aquatic resources. Triggered by any activity that requires a building permit, the regulations prohibit buildings from being built that “impact areas of riparian resources.” Road construction is also restricted. Proposed building sites that contain an area of riparian resource must develop a Riparian Management Plan detailing how the resource will be protected; the local governing body must approve this plan. Each management plan must describe how the landowner will protect the wildlife, vegetation, and other aspects of the riparian area. The goals of these regulations are to ensure that the riparian resource remains available to support riparian systems and habitats; protect water quality; act as a sediment filter; protect the banks of streams and lakes; preserve large, woody debris that can provide stream habitat and shade to regulate stream temperature; promote floodplain stability; protect ground water; and maintain the integrity of the area. The regulations identify key plants associated with local riparian resources. These standards were designed so that an individual with some skills, armed with a plant identification book, can usually perform the riparian boundary identification. Planning staff is also available to assist landowners with boundary determinations on a case-by-case basis. A procedure for variances is spelled out in detail. *For more information*, contact Jackie Corday, Office of Planning and Grants, 435 Ryman, Missoula, MT 59802-4297, (406) 523-4657.



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## Planning and Zoning Districts

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### **Purpose:**

To create a planning and zoning district within a portion of a county through a landowner-initiated petition. This type of zoning can accomplish the same purposes as County or Municipal Zoning: to promote the public health, safety, and values in a community by designating zones where certain types of developments can occur and setting requirements that new development must meet.

### **Who Enacts This Tool:**

Property owners may petition the county commissioners to form a planning and zoning district. Upon receiving the petition and holding a public hearing, the county commissioners have discretion to create a district and adopt land use regulations for that district.

### **Authority for Tool:**

Counties may adopt zoning based on a landowner petition under the County Planning and Zoning Commission Act (Title 76, Chapter 2, Part 1, MCA).

### **How it Works:**

Resident landowners initiate a petition to create this type of planning and zoning district. These districts must be at least 40 acres in size and must be in areas outside of an incorporated area. At least 60% of the landowners in the affected area must sign the petition to form a district and adopt land use regulations for that district. Unlike county-initiated and citywide zoning (*see County or Municipal Zoning, page 5-3*), landowner petition planning and zoning districts can be created in the absence of a growth policy plan. If enough signatures are collected through a landowner petition, the county commissioners are responsible for holding a public hearing to decide whether to create a planning and zoning district. A planning and zoning commission is appointed to prepare a development plan for the district. The county commission has discretion to adopt, modify, or reject the recommended regulations.

Planning and zoning districts can protect wetlands and riparian areas by prohibiting development in identified areas; allowing only low-impact uses in identi-

fied areas; establishing setbacks for development adjacent to these areas; requiring that any development in or near one of these areas be designed to prevent or minimize impacts; and/or requiring that impacts to these areas be mitigated. Additionally, if no specific protection appears in the regulation, streams and wetlands can still receive some level of protection when density limits restrict new houses to larger parcels, preventing new houses from lining rivers and streams in significant densities.

### **Strengths:**

Because of the petition process, landowner commitment to planning and zoning districts is usually very high because the people most affected—the area residents—are the ones who typically craft the plans and regulations. Also, small area or district plans and regulations are often easier to adopt than countywide regulations because the regulations usually are customized to fit the needs and desires of the local residents. Many times, it is easier to identify the land use issues when dealing with a smaller geographical area and people more familiar with the area. Landowners with an interest in protecting wetlands and riparian areas can work to include strong protection language in adopted zoning regulations.

### **Weaknesses:**

Problems can arise because of the smaller scope of planning and zoning districts and the fact that district regulations are drafted in isolation from the rest of the county. Some aspects of public planning that are interconnected with other parts of the county can be dealt with more efficiently on a larger scale. To date, wetland and riparian protection in these zoning districts has been a byproduct of density standards, rather than a result of specific regulations adopted within the districts.

### **Montana Case History:**

#### **1. Gallatin County.**

The Bridger Canyon Zoning District is the first planning and zoning district in Montana.



Established in 1971, the district covers 51,440 acres. The purpose of the district is to promote health, safety, and general welfare, which specifically includes preventing overcrowding, preserving fish and wildlife habitat, preserving scenic resources, ensuring high quality water quality standards, protecting agricultural land uses, and more. The majority of land in the district is divided into two categories: recreational business, and recreation and forestry. For the recreational business portion of the district, parcel sizes may not be less than 10 acres in size, a minimum of a 50-foot setback from streams is required of all facilities, and no residential development is allowed. In the recreation and forestry portion of the district, the minimum parcel size is 40 acres and the setback for facilities is 50 feet from any stream. The setbacks and acreage restrictions on lot size help protect the riparian areas along streams. This Zoning District also has a Planned Unit Development provision that uses Transfer of Development Rights (*see Transfer of Development Rights, page 5-8*). **For more information**, contact Jennifer Madgic, Gallatin County Planning Office, 311 West Main Street, Bozeman, MT 59715; (406) 582-3130.

## 2. Jefferson County.

The Milligan Canyon/Boulder Valley Agricultural Zoning District covers more than 91,000 acres. The purpose of the district is to preserve the local area's rural lifestyle and the primarily agricultural land base.



In order to restrict new development, the district only allows one non-farm/ranch dwelling per 640 acres. Although wetlands and riparian areas are not specifically protected in this district, protection occurs as a byproduct because of the lot size for new non-farm/ranch dwellings—which prevents houses from lining rivers and streams. The district was established in 1992 as a temporary emergency zoning district, and became permanent in 1995. **For more information**, contact Harold Stepper, Jefferson County Planning Department, P.O. Box H, Boulder, MT 59632; (406) 225-4040.

## 3. Park County.

The East Yellowstone Zoning District covers approximately 2,000 acres along almost 12 miles of the Yellowstone River. The purpose of the district is to maintain the open and rural residential character of the area; allow development that is compatible with existing growth patterns; protect and enhance property values; and protect the natural environment, water quality, and wildlife. The district allows one single family dwelling per 30 acres; all new buildings must be set back a minimum of 100 feet from the river. The setbacks and acreage restrictions on lot size help protect riparian areas. **For more information**, contact the Park County Planning Office, 414 East Callender Street, Livingston, MT 59047; (406) 222-4144.



### Purpose:

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## Development Permit Regulations

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To maintain a certain character or quality of development in an area for safe and compatible land uses. Development permit regulations can be used to regulate unsuitable areas for building.

### Who Enacts This Tool:

Local governments are authorized to adopt development permit regulations: city or town councils within incorporated areas, county commissions outside of municipalities. Additionally, these regulations can be enacted in landowner-initiated petitioned planning and zoning districts.

### Authority for Tool:

Cities and towns are authorized to adopt development permit regulations under the Municipal Zoning Act (Title 76, Chapter 2, Part 3, MCA). Counties are authorized to adopt development permit regulations through both a county-initiated process and a landowner-initiated petition process in the County Planning and Zoning Commission Act (Title 76, Chapter 2, Parts 1, MCA).



### **How it Works:**

Also called performance standards, development standards, or permit systems, development permit regulations are land use regulations adopted as an alternative to traditional zoning. As with traditional zoning, these regulations must be drafted in accordance with an adopted growth policy plan. Instead of focusing on where certain types of development can occur, development permit regulations emphasize the character or quality of development. Especially well suited for rural and unincorporated areas, under these regulations, different requirements can be established for separate areas of a county. For example, a rapidly growing section of the county may have more strict regulations than other more rural areas in the same county.

Development permit regulations can be used to protect wetland and riparian resources by prohibiting development in identified areas; allowing only low-impact uses in identified areas; establishing setbacks for development adjacent to these areas; requiring that any development in or near one of these areas be designed to prevent or minimize impacts; and/or requiring that impacts to these areas be mitigated. Several Montana communities have used development permits regulations to protect river corridors.

### **Strengths:**

Because development permit regulations can apply to new development for an entire jurisdiction and embody the desires of the community, these regulations require updating less often than traditional zoning districts. Because of their flexibility in locating different uses, these regulations seem less restrictive—and thus less threatening—to some communities than traditional zoning. Even though development permit regulations usually focus on the quality of a new development and not its location, prohibiting development through thoughtful development standards can protect certain sensitive areas. Because these regulations apply to each new building, existing lots and tracts in an approved subdivision that do not have a building are reviewed under these regulations and subject to any setback requirements. Finally, the pub-

lic hearing process used to develop these regulations is an excellent opportunity to educate citizens and decision-makers about the importance of protection programs.

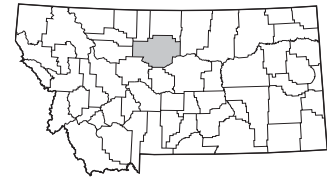
### **Weaknesses:**

Drafting policies and effective regulatory language requires an extremely well written and clear development permit system. Also, as with any regulatory tool, without diligent enforcement, development permit regulations can be rendered ineffective.

### **Montana Case Histories:**

#### **1. Chouteau County.**

One of Montana's first countywide development permit regulations was adopted by Chouteau County in



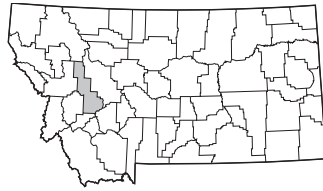
1985. The regulations protect the rural and agricultural character of the county by encouraging residential and commercial development in or adjacent to existing communities, limiting non-agricultural density, and protecting the Missouri River corridor. Other streams and rivers within the county do not receive protection from these regulations. The regulations:

- Encourage only 2 nonagricultural residential dwellings within any 40 acres in rural areas.
- On the Missouri River, from Coal Banks Landing to the eastern Chouteau County line, new residential development must be 3 horizontal miles from the river when the development “would be visible along a line of sight from any point between the high water marks.”
- On the Missouri River, from the Fort Benton City Planning Board jurisdiction boundary to Coal Banks Landing, new residential development must be set back 400 horizontal feet from the high water marks, and residential development must not exceed 1 dwelling unit per 8 acres.

**For more information**, contact Dale Harkins, Chouteau County Planner, P.O. Box 459, Fort Benton, MT 59442; (406) 622-3035.

## 2. Powell County.

Development permit regulations with setbacks to protect riparian areas and their associated wetlands have been adopted in Powell County. The protective buffers require a setback from the Blackfoot River, including the North Fork of the Blackfoot River. These setbacks specifically prohibit new residential, commercial, or industrial structures within 25 yards (75 feet) of the “river’s edge or river’s floodplain.” In order to restrict new development in the northern 2/



3 of the county where the Blackfoot River is located, only one non-farm/ranch dwelling is allowed per 160 acres. Although wetlands and riparian areas are not specifically protected through the 160-acre density standard, protection is a byproduct because of the lot size for new non-farm/ranch dwellings—which prevents houses from lining rivers and streams. In addition to setbacks and density standards, buffer strips of vegetation may be required. Landowners in the area initiated these regulations. *For more information*, contact Ron Hanson, Powell County Planning Department, 409 Missouri, Deer Lodge, MT 59722; (406) 846-3680.

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## Transfer of Development Rights (TDR)

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### **Purpose:**

To direct new growth toward desirable and suitable locations by establishing a market-based system to allow compensation for landowners who do not, or are not allowed to, develop their property.

### **Who enacts it:**

Counties, municipalities, and county planning and zoning districts.

### **Legal Authority:**

Transfer of development rights may be enacted as part of zoning or development regulations under the County Zoning Act (76, Chapter 2, Part 2, MCA); the County Planning and Zoning Commission Act (Title 76, Chapter 2, Part 1, MCA); and the Municipal Zoning Act (Title 76, Chapter 2, Part 3, MCA).

### **How it Works:**

Traditional land use controls designate some lands for residential, commercial and industrial uses; while other lands, such as agricultural land or open space, are slated for rural, or non-development use. Landowners in areas planned for development reap the economic benefit of development, while landowners in areas planned and designated for non-development do not. Thus, in an economic sense, there are “winners” and “losers.” TDRs overcome, or at least reduce, this disparity by allowing landowners to be compensated even though their property remains undeveloped. In adopting TDRs, a local government creates and assigns a “right” to

build on properties located in areas designated as growth districts. Typically, one “development right” is allocated to each property in these growth areas, allowing landowners the right to build one residence on their property. If landowners want to construct more housing units, or undertake a development project, they must acquire additional “development rights” by purchasing those rights from owners of other properties, most likely properties in areas designated for non-development. Once the development rights on a property are sold, a deed restriction prohibiting future development is recorded with the County Clerk and Recorder. Three entities benefit from a TDR system: the developer obtains authority to proceed with development projects; landowners in “non-development” areas receive compensation without developing their properties; and the public benefits because community objectives and values are protected.

A TDR system can benefit the preservation of wetlands and riparian areas when those areas are identified as community assets and included in non-developed or open space areas.

### **Strengths:**

TDRs help make land use regulations more acceptable among citizens because landowners with property located in areas with development restrictions can still be compensated even though their properties are not developed. A TDR coupled to more con-



ventional zoning or development regulations, helps reduce the controversy usually generated by proposals for traditional land use controls. Developers benefit because they can assemble the rights to proceed with development projects. The public also benefit because TDRs help achieve community objectives, such as wetland and riparian protection.

### **Weaknesses:**

Developing a TDR system can be complex. To make a TDR program viable, it must be designed with a ratio between development areas and non-develop-

ment areas that ensures a market exists for buying and selling development rights. Also, development and non-development areas must be well planned and defined to ensure that community land use objectives are met.

### **Montana Case Study:**

Several planning and zoning districts in Gallatin County have adopted variations of TDRs. However, to date, none of their 3 districts authorized to use TDRs have used this tool to protect wetlands and riparian areas.

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## **Subdivision Regulations**

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### **Purpose:**

To regulate the subdivision of land into building lots, and to ensure proper provisions are made for roads, water, sewer, and other public facilities.

### **Who Enacts This Tool:**

All cities, towns, and counties are required by state law to adopt and enforce local subdivision regulations. Typically, local planning boards and staffs administer the local subdivision program by developing recommendations for the governing body.

### **Authority for Tool:**

The Montana Subdivision and Platting Act (Title 76, Chapter 3, MCA) provides the authority and the mandate that all local governments adopt and enforce subdivision regulations.

### **How it Works:**

Montana law requires local governments to adopt and enforce regulations to regulate the process of subdividing or platting land into lots less than 160 acres in size. State law also requires that subdivision regulations conform to local growth policy plans (*see Growth Policy Plan, page 5-1*). Subdivision regulations must take into consideration the effects of the proposed development on the natural environment, wildlife and wildlife habitat, agriculture and agricultural water user facilities, public health and safety, and local services. Additionally, in order to be approved, a subdivision must meet the design standards set by local regulations, and conform to other criteria

specified in local subdivision regulations. Local governments then review each proposed subdivision to approve, approve with conditions, or disapprove the project. For major subdivisions (those containing six or more lots):

- Developers are required to prepare environmental assessments on the impact of proposed subdivisions.
- Developers must provide land or cash for parks (*see Parkland Dedication, page 5-12*).
- Local governments must hold public hearings and must make a written finding of facts as part of their approval or disapproval of each proposed subdivision.

For most minor subdivisions (five or fewer lots), the above three requirements do not apply.

Local governments can protect wetlands and riparian areas through subdivision regulations by requiring that developers: setback all buildings, structures, and septic systems from delineated areas; designate no-build zones or no improvement zones that protect identified areas; designate “building envelopes” where structures are allowed to be built; and/or design parks, required for major subdivisions, to protect wetlands or streams. Before local subdivision regulations can offer these protections, however, local governments should specify protection of these areas in their growth policy plans.

### **Strengths:**

Because all local governments are required to adopt

and enforce subdivision regulations, protecting river corridors and wetland and riparian areas is more politically acceptable through subdivision regulations than through other types of regulations. Also, subdividing land is the first step in the process of land development, and protecting wetland and riparian areas at this initial step is advantageous. Lands dedicated for parks in subdivisions can also be set aside to protect natural features such as stream corridors or wetlands (*see Parkland Dedication, page 5-12*).

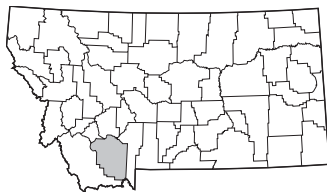
**Weaknesses:**

The primary purpose of subdivision regulations is to manage development, not to protect wetlands and riparian areas. Consequently, reliance on subdivision regulations for protection of these sensitive areas is often inadequate. Another problem arises because subdivision regulations only apply to land being newly subdivided. Therefore, existing lots and tracts are not reviewed under subdivision regulations and consequently are not subject to any subdivision setback requirements. This inconsistency can create problems for local governments: it is difficult to tell one landowner that they have to build 500 feet from a river, when a neighbor, because of when their property was subdivided, is allowed to build 20 feet from the riverbank. Additionally, local governing bodies can grant variances (exceptions) to the requirements in subdivision regulations, such as allowing development to occur closer to a river than setbacks specify. Variances are granted more often when older subdivisions are located near the area that will be newly subdivided. Finally, Montana communities have been more successful with setbacks for riparian areas along major rivers, than for protection of wetlands or riparian areas along smaller streams.

**Montana Case Histories:**

**1. Madison County.**

Subdivision regulations in Madison County contain the following construction setbacks from water bodies: 1)

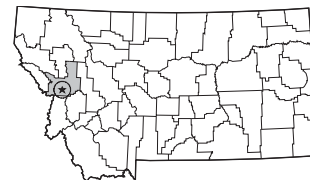


on the Madison River, the minimum setback is 500

feet from the ordinary high water mark; 2) on the Big Hole, Jefferson, Ruby, Beaverhead, and South Boulder Rivers, the minimum setback is 150 feet; and 3) on other waterways in the county, the minimum setback is 100 feet. Under certain circumstances, the Madison River setback may be reduced, and the 150-foot setback may be increased. This setback requirement is authorized in the county’s comprehensive plan (*see Madison County, page 5-3*). It is based on a 1983 study done for the county that indicated that “development along the Madison River will adversely affect the important economic and recreational opportunities that so many people depend on...” and that proposed several voluntary river management measures to alleviate this concern. In 1993, concluding that voluntary actions alone were not adequately protecting the resources of the Madison River Corridor, the Madison County Planning Board recommended that river construction setbacks be included in the county subdivision regulations. **For information**, contact Doris Fischer, Madison County Planning Office, P.O. Box 278, Virginia City, MT 59755 (406) 843-5250; email address is: [planner@3rivers.net](mailto:planner@3rivers.net).

**2. City of Missoula & Missoula County.**

Both Missoula and Missoula County subdivision regulations, adopted in 1995, contain ecologically-based riparian resource protection standards. These standards are almost identical to the zoning regulations adopted by the City of Missoula described on page 5-4.



**3. City of Bozeman.**

Regulations in Bozeman specify that any residential or commercial structures, additions to an existing structure, fences, decks, parking lots or other impervious surfaces, or similar improvements be set back a minimum of 100 feet from the East Gallatin River; 75 feet from Sourdough and Bozeman Creeks; and



50 feet from all other watercourses. The setbacks must be expanded to the edge of any delineated 100-year floodplains and must include any adjacent wetlands. A defined channel, bed and bank are required of streams covered under this regulation. In addition, the corridor must contain native vegetation or be planted using an approved setback vegetation plan. The current Bozeman setback regulations took effect on July 10, 2002; they include a smaller setback

and additional flexibility for areas approved for development or subdivided prior to the effective date of the regulations. **For more information**, contact Jody Sanford, Department of Planning and Community Development, City of Bozeman, 20 East Olive Street, P.O. Box 1230, Bozeman, MT 59771-1230, (406) 582-2260; the regulations also appear on their website: [www.bozeman.net](http://www.bozeman.net).

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## Public Interest Covenants

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There are two types of covenants. **Public interest covenants**, described in this section, are required by, held, and/or enforced by local governments. Those held and enforced by landowners are called **private covenants** (see *Private Covenants*, page 6-1).

### **Purpose:**

To impose conditions, restrictions, or mandated actions on property owners as a result of the subdivision approval process. A governing body is a party to public interest covenants, and the local government must typically approve changes to the covenants.

### **Who Enacts This Tool:**

Public interest covenants are imposed on land by governing bodies as a condition of subdivision or permitting approval. Depending on how these covenants are written, they may either be enforced by landowners, developers, or by the government agency that imposed the covenants.

### **Authority for Tool:**

Covenants are authorized under Servitudes, Easements and Covenants Running With the Land (Title 70, Chapter 17, MCA). Public interest covenants are also authorized in two statutes: 1) in the Montana Subdivision and Platting Act (Title 76, Chapter 3, Part 2, MCA); and 2) in the Sanitation in Subdivisions statutes (Title 76, Chapter 4, Part 1, MCA). The Sanitation in Subdivisions statute specifically authorizes local governments to use restrictive covenants to “protect state waters.”

### **How it Works:**

Covenants are conditions, restrictions or mandated actions that are imposed by the local government on property owners to protect public health and safety. When local governments impose conditions on a sub-

division, they may include the governing body as a party to the covenants, and government approval before the covenants can be changed. Additionally, public interest covenants must run with the land, meaning they apply to all present and subsequent property owners unless the local government agrees to terminate them. In addition to individual lot owners and property owner associations, if specified, the local government also enforces these covenants. Local governments are usually a party to covenants only when there is a substantial public interest in retaining the covenants. Examples of public interest covenants include maintaining perimeter fences; controlling weeds; maintaining roads and culverts; managing clear areas to reduce fire risk; and maintaining water supplies, storm water drainages, and sewage disposal systems.

Public interest covenants can protect wetlands and riparian areas by prohibiting construction in, or disturbance of, these areas. For example, a buffer could be required between wetlands and streams and:

- Lawns – to prohibit lawn chemicals from entering a stream;
- Parking lots – to prohibit hazardous material and other pollutants from entering water bodies;
- Buildings – to protect against flood hazards; and
- Storm water management facilities – to prevent various pollutants from entering water bodies.

### **Strengths:**

Public interest covenants can provide long-term pro-

tection of wetlands and riparian areas by placing restrictions preventing construction, filling, development, or other adverse activities within these areas. Public interest covenants that can be enforced by local governments have fewer of the enforcement problems outlined under the private covenant weaknesses section on page 6-2.

### **Weaknesses:**

Local governments can have limited resources to enforce these covenants. Enforcement of covenants to protect a specific wetland or riparian area may or may not be possible because of limited resources by the city or county attorney. Additionally, enforcement of covenants only occurs if there is a known violation. Unless reported, it is difficult for local governments to track violations in individual subdivisions. If enforcement actions are taken, restoration of the wetland or riparian area will not necessarily be required. Historically, the law favored payment of damages for violation of covenants, not land restoration. Although covenant law has evolved to permit injunctive relief as well as damages for covenant violations, a bias in favor of monetary relief still exists in the courts and case law.

### **Montana Case Histories:**

#### **Missoula County.**

Approved in 2001, Old Water Wheel Estates is a minor 4-lot subdivision on 9.8 acres located at the junction of



the Bitterroot River and O'Brien Creek. Based on subdivision regulations, conditions were imposed that required the final plat, covenants, and Riparian Resource Management Plan to indicate a 25-foot buffer zone from the two watercourses. The covenants and Riparian Plan state that the following activities are prohibited in the Riparian Buffer zone: all structures, vehicle access, roads or driveways, fencing, grazing, stream bank alterations, disturbance of native plants, landscaping, lawns, tilling, mowing, fertilizing, filling or dumping, and power equipment (unless part of an approved weed control program). In addition to the buffer zone, conditions also require the final plat to designate a "no-build" zone, which prohibits placing any buildings within 50 feet of the high water mark of the stream or river. The Riparian Plan and covenants also prohibit placing fishponds within 50 feet of the river, and include specifications for planting native riparian vegetation. The County can enforce the provisions related to protection of the riparian area; it must also approve any changes to the covenants. An enforcement action has already occurred when one lot owner burned a section of the riparian buffer area.

Missoula County has used public interest covenants in several subdivision projects to protect both wetlands and riparian areas. Building envelopes, no-build zones, and no improvement zones have all been used (see *Zones of Non-development*, page 4-5). **For more information**, contact Jackie Corday, Office of Planning and Grants, 435 Ryman, Missoula, MT 59802-4297; (406) 523-4657.

## **———— Park Dedication Through General Local Government Authorities ————**

### **Purpose:**

To meet the community's need for playgrounds, ball fields, open space, wildlife habitat, and other park activities.

### **Who Enacts This Tool:**

Local governments in coordination with the planning boards, park boards, or commissions.

### **Authority for Tool:**

The general authority for establishing parks is found

in Title 7, Chapter 16, MCA: county authority is in Parts 21 through 24; municipal government authority is in Parts 41 and 42, MCA.

### **How it Works:**

Dedicated parkland can be used for a variety of activities and purposes. Wetlands are usually unsuitable for development, and setting these areas aside in their natural setting can benefit the future residents of the community. River or stream corridors are important community resources that can be pro-

tected as a park or open space. The biggest hurdles to saving wetlands and riparian areas through park and open space programs is limited funding. These limited dollars must pay for the acquisition and maintenance of ball fields, playgrounds, recreation facilities, and open space. However, thoughtful planning can protect important natural assets and meet other needs of communities.

One of the special considerations required when protecting wetlands and riparian areas is the need to manage human use of the area. Increased human use of an area can impact vegetation. Designing natural parks to direct human use away from the shore of a wetland or stream bank is difficult. At a minimum, these areas need appropriate buffers created to protect them from recreational use, lawns, and other activities associated with development. One way to protect riparian areas is to direct recreational activities to one side of the stream or river, while discouraging use on the other.

### Strengths:

A number of municipalities and counties have successfully set aside wetlands and riparian areas as natural areas or open space.

### Weaknesses:

Parks set aside as natural areas or open space must be managed to ensure that the resource is not damaged. As mentioned above, designing natural parks to direct human use away from the shore of a wetland, lake or stream bank is difficult. At a minimum, these areas need appropriate buffer strips created to protect them from recreational use, lawns, and other activities.

### Montana Case History:

#### 1. City of Billings.

In 1994, a Yellowstone Greenway Master Plan was created for a 16-mile stretch along the Yellowstone River through Billings. The plan was commissioned by a private nonprofit organization, the Yellowstone River



Parks Association, and adopted by the City of Billings and Yellowstone County. This plan has been the blueprint for development of a greenway system along the river. Anchored by Riverfront Park (about 450 acres) in the south and Two Moon Park (about 115 acres) on the north, the greenway currently protects approximately 800 acres within the city and/or county, including several natural parks. A trail system connects most of the park system, although portions of the greenway area are privately owned and do not have trails. **For more information**, contact Gene Blackwell, Superintendent of Parks, Parks, Recreation & Public Lands, City of Billings, 390 North 23<sup>rd</sup> Street, Billings, MT 59101; (406) 657-8373.

#### 2. City of Great Falls.

The River Edge Trail protects a corridor along both sides of the Missouri River. The trail is more than 8 miles long on the river's south side, and 1.7 miles on the north. Native riparian vegetation and associated wetlands are protected in several segments. **For more information**, contact Doug Wicks, River Edge Trail Coordinator, P.O. Box 553, Great Falls, MT 59403; (406) 788-3313.



#### 3. City of Missoula.

In 1902 **Greenough Park** was donated to the city as a park "to which people of Missoula may during the heated days of summer, the beautiful days of autumn and the balmy days of spring find a comfortable, romantic, and poetic retreat" (Devlin, 2002). The park, approximately 50 acres in size, protects both sides of Rattlesnake Creek and must be "forever maintained in its natural state." The vegetation includes mature cottonwoods, large Ponderosa Pine, and dense streamside vegetation. More than 120 species of birds have been identified in the park. Currently restoration work is underway to remove non-native trees and other vegetation, restore stream channels, and plant native vegetation. **For more in-**





*formation*, contact David Claman, Missoula Parks and Recreation, 100 Hickory Street, Missoula, MT

59801; (406) 523-4762;  
email: dclaman@ci.missoula.mt.us.

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## Parkland Dedication Through Subdivision Development

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### **Purpose:**

To meet the community's need for playgrounds, ball fields, open space, wildlife habitat, and other park activities for expected residents of new subdivisions.

### **Who Enacts This Tool:**

Local government in coordination with the developer and the local planning or park board.

### **Authority for Tool:**

This parkland dedication is associated with subdivision development; the authority is found in the Subdivision and Platting Act, specifically Title 76, Chapter 3, Part 6, Section 621, MCA.

### **How it Works:**

All major subdivisions (defined as six or more lots) are required to set aside parkland, an equivalent amount of cash, or some combination of both. Before a major subdivision is approved, the developer and the local government must agree on the details of the set aside parkland: the amount of land, location, and use of the park. Dedicated parkland can be used as natural parks and/or developed as ball fields or playgrounds. Developers sometimes choose land to set aside as parkland, such as a wetland, that cannot be developed for residential or commercial uses. Although this strategy may work to protect some areas, communities often have situations where conflicts arise for limited parkland for playgrounds, recreation facilities, and open space. When those conflicts arise, local officials often try to direct proposed parkland to areas that offer the most visible public benefits. Thoughtful planning can usually protect important natural assets *and* provide needed park and playground areas. Cash-in-lieu of parks can be used for the purchase of conservation easements to protect open space, or buy wetlands or similar areas for hiking or nature study. Although many developers and local governments choose to use park fees for maintenance of existing parks, communities may opt

to invest the money in open space.

### **Strengths:**

Because wetlands and riparian areas can be unsuitable for development in the first place, setting them aside in their natural setting can benefit the future residents of a subdivision as well as the public in general. With thoughtful planning, dedicated parkland or cash-in-lieu of land can be used both to protect critical open space and provide needed parks and playgrounds.

### **Weaknesses:**

Parkland dedication to protect wetlands and riparian areas only works under specific circumstances. For example, there have been situations where a developer wants to dedicate wetlands as their parkland requirement, but a subdivision needs a playground or similar facility. The developer is then required to donate the drier parcel of land for the parkland donation that the local government wants, and the wetland remains part of the subdivision that may be developed—or degraded because of a lack of an adequate, protected buffer strip. Additionally, setting aside a wetland or riparian area as parkland does not ensure that it will remain protected. When a subdivision is created, the human use of the area increases. Designing natural parks to direct human use away from the shore of a wetland or stream bank is difficult. At a minimum, these areas need appropriate buffer strips for protection from recreational use, lawns, and other activities associated with a subdivision. Because cash-in-lieu of parkland must be calculated on the un-subdivided, unimproved value of the land, often the amount of cash donated is insufficient to purchase meaningful parkland or wetlands.

### **Montana Case Histories:**

#### **1. City of Bozeman.**

The Sundance Springs Subdivision Planned Unit Development (PUD) was constructed in three phases,

allowing development of 134 lots on approximately 215 acres. Thirty percent of the subdivision was reserved as common open space (almost 65 acres), open to all residents and the general public, but maintained by the subdivision's homeowners association. This common open space includes a 2-acre pond. As part of the third phase of this development, the city negotiated to purchase a linear park along Nash Spring Creek. This park is approximately 10 acres and varies in width from 50 to 100 feet. The subdivision design provides a minimum of 50 feet of open space, owned and controlled by the homeowners association, between residential lots and the dedicated linear park along Nash Spring Creek. In addition to this 50-foot setback, lot owners have a 20-foot setback for their yard (lawn). A riparian restoration project recreated the meanders in Nash Spring Creek, and improved fisheries and water quality protection capacity for the stream. **For more information**, contact Karin Caroline, Department of Planning and Community Development, City of Bozeman, 20 East Olive Street, P.O. Box 1230, Bozeman, MT 59771-1230, (406) 582-2260.



## 2. Gallatin County.

Historically, Gallatin County has required that creeks and rivers within a proposed subdivision be incorporated into open space areas rather than remain part of lots. The Meadowbrook Estates Major Subdivision is a 57-lot development on approximately 16 acres, three miles west of Bozeman. It is located within the Bozeman Area Zoning District. This major subdivision needed an 11% park dedication, which was fulfilled with the establishment of "Minder Park" as a dedicated recreational park. Minder Park includes part of Minder Pond, which is a wetland over 1 acre in size. Aajker Creek, with its mature cottonwood and willow vegetation, runs along the property's northeastern border. In addition to the park dedication of Minder Park, a private covenant was placed on lots 20-23 in the development requiring that a minimum of 5 feet of the required 35-foot setback immediately adjacent to Aajker Creek be left in its "natural vegetative state." Most of the 35-foot setback along Aajker Creek is included in the park dedication for the subdivision. **For more information**, contact Jennifer Madgic, Gallatin County Planning Office, 311 West Main Street, Bozeman, MT 59715; (406) 582-3130.



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## Open Space Bonds

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### **Purpose:**

To provide a funding source to purchase or lease parks, trails, and recreation areas; and conserve wildlife habitat, critical areas, and open space.

### **Who Enacts This Tool:**

States, counties, or municipalities, upon approval by voters within the jurisdiction.

### **Authority for Tool:**

Open space bonds are authorized under the Open-Space Land and Voluntary Conservation Easement Act (Title 76, Chapter 6, Part 1, MCA).

### **How it Works:**

The state, municipalities, and counties may issue long-

term bonds as a means of generating funds to purchase land or acquire conservation easements for parks and open space. Voters must approve these bonds at an election. Upon approval, citizens are committed to repaying the bonds, typically over a 20-year period of time. In order to guide open space purchases, the governing entity usually develops a plan showing the comprehensive need for open space, parks, and recreation areas. The governing body typically appoints a council of citizens to oversee proposal development, hold public meetings, and make recommendations to governing officials on what properties should be obtained with open space funds. The governing body has the ultimate spending authority for this money. To date, Helena, the city and county of Missoula, and Gallatin County have all used open

space bonds to purchase land or acquire conservation easements for parks and open space.

### **Strengths:**

Open space bonds provide a ready source of funds to acquire lands for parks, important wildlife habitat, agricultural lands, vistas, and trails. Because voters must approve these bonds, there is general public support for the land acquisitions. The bond money can be used to purchase key open space that contains wetlands or riparian areas, which results in protection from development. All purchases are done made from a willing seller.

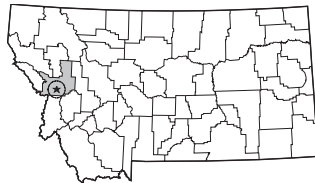
### **Weaknesses:**

Citizens may be reluctant to increase their taxes, especially for open space that may not be perceived as essential to the community. However, with strong, affirmative public education programs, open space bonds can win approval. As with park dedication programs described above, local officials often put a higher priority on purchasing lands for recreational trails and ball fields, rather than natural parks. Finally, although a key open space may be desirable for purchase, if a property owner is not interested in selling the property, then the land cannot be acquired.

### **Montana Case History:**

#### **1. City of Missoula & Missoula County.**

In 1991, the Missoula City Council and County Commissioners adopted an urban area

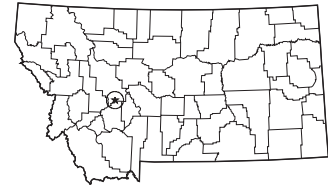


open space plan, which identified park and open space needs and specified strategies for meeting those needs, including using open space bonds. In 1995, voters passed a \$5 million open space bond. The term of the general obligation bond is 20 years. The bonds are being repaid by a property tax levy that averages \$20 per residence per year. Individual, agency, and corporate funding are supplementing the bond. Using these funds, Missoula purchased 80 acres along the Clark Fork River that supports a cottonwood riparian forest with vital wildlife habitat. This impor-

tant riparian area will be managed for its natural values. **For more information**, contact Kate Supplee, Open Space Program Manager, Missoula Parks and Recreation Department, 123 W. Spruce St., Missoula, MT 59802; (406) 523-4841.

#### **2. City of Helena.**

A key Helena-area wetland was purchased with open space bond money, and money from



Montana Audubon, Last Chance Audubon, the Mikal Kellner Foundation, and Prickly Pear Land Trust. The land is adjacent to the Lewis and Clark Fairgrounds. It contains an important piece of the remaining wetlands in the North Helena Valley, and its protection enlarges a wetland complex that is already in public ownership. The land is vital to birds, particularly migrants, as they pass through the Helena Valley. The property is owned and managed by the City of Helena as a natural area; Montana Audubon retains a conservation easement on the parcel. Voters approved Helena's \$5 million Open Space Bond in 1996. The term of the general obligation bond is 20 years, which is paid by a property tax levy that averages \$33 per residence per year. **For more information**, contact Randy Lilje, Director of Parks & Recreation, City of Helena Parks Department, 316 N. Park Ave., Helena, MT 59623; (406) 447-8463.

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## Floodplain Regulations

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### **Purpose:**

To regulate development within the 100-year floodplain of a stream or river in order to minimize the loss of life and property damage caused by flooding, and protect public health and safety. Enforced floodplain regulations also reduce public expenditures for emergency evacuation and flood damage restoration.

### **Who Enacts It:**

The Montana Department of Natural Resources and Conservation (DNRC) designates 100-year floodplains. Municipalities and counties can adopt and enforce local floodplain regulations within their jurisdictions. Most local governments appoint a floodplain administrator to administer the floodplain regulations.

### **Authority for Tool:**

The Montana Floodplain and Floodway Management Act (Title 76, Chapter 5, MCA) authorizes DNRC, municipalities, and counties to adopt and enforce local floodplain regulations. Compliance with the act is required if municipalities and counties wish to participate in the National Flood Insurance Program under the Federal Emergency Management Agency (FEMA).

### **How it Works:**

Floodplain boundaries have been officially delineated along waterways in most developed areas of Montana. Local governments are required to adopt floodplain regulations relating to development within any area delineated as a 100-year floodplain. If a local government does not adopt and enforce its own local floodplain regulations, then DNRC takes over this function for the local government. In areas where 100-year floodplains have not been designated, local governments rely on “flood prone” areas, which are approximate maps of the floodplain based on the best available information (e.g. aerial photographs of flood events). It is important to note that streams without mapped floodplains still have floodplains that can flood. To understand how floodplain regulations work, it is necessary to understand three terms:

- **100-year floodplains** include the area adjoining a stream or river that has a one percent (1%) chance of flooding in any give year. It contains the floodway and the floodway fringe (the 100-year floodplain = the floodway + flood fringe).
- **Floodways** carry most of the flood water; technically floodways are the channel of a watercourse or drainage way, and those portions of the floodplain adjoining the channel, that are reasonably required to carry and discharge the floodwater of any watercourse or drainage way.
- **Floodway fringe** is the portion of the 100-year floodplain outside the floodway, including the flood storage and backwater areas subject to shallow water depths and low velocities.

Anyone who proposes projects near streams or rivers must check with the local floodplain administrator to determine if the project is allowed or if a permit is required. Activities generally allowed in the floodway include agriculture; industrial-commercial uses such as parking areas; recreation uses such as parks, boat ramps, and golf courses; and residential uses such as lawns and gardens. Activities generally allowed in a floodway fringe include activities allowed in a floodway, and buildings that are constructed on fill so that the lowest floor elevation (including the basement) is 2 feet above the floodplain elevation. No septic systems are allowed in the floodway fringe.

Riparian areas and their associated wetlands can receive protection through floodplain protection. Floodplain regulations can be made to apply to more than the 100-year floodplain as defined by FEMA. For example, the City Portland, Oregon regulates “Flood Areas.” These Flood Areas constitute all land within the 100-year floodplain and all land that has physical or historical evidence of flooding in the last 100 years. This type of comprehensive floodplain designation can protect more wetlands and riparian habitat than the FEMA, or 100-year floodplain designation.

## Strengths:

Local floodplain regulations can help maintain the ecological integrity of riparian habitat and wetlands located in the 100-year floodplain. Adequate floodplain regulations can protect communities from expensive lawsuits due to flooding (*see Missoula County below*).

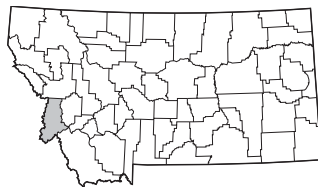
## Weaknesses:

Floodplain regulations rely on designation of 100-year floodplains. Flood maps often are not accurate. Wetlands or riparian areas located outside of designated 100-year floodplains will not receive protection through floodplain regulations. Although floodplain regulations prohibit development in the floodway, they allow development in the floodway fringe, which allows property owners to bring in fill material to raise the building site above the 100-year flood elevation. Fill negatively impacts riparian areas and their associated wetlands. Because local floodplain administrators often do not have adequate training, time or resources to fulfill their floodplain management work, it can make it difficult for them to inspect projects for compliance or undertake enforcement actions. There can also be local resistance to enforcement of floodplain regulations.

## Montana Case Histories:

### 1. Ravalli County.

Floodplain regulations in Ravalli County prohibit new residential structures within the 100-year floodplain

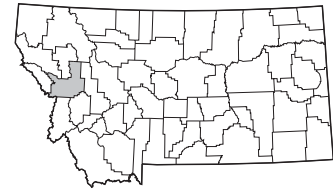


(most counties allow structures in the floodway fringe if adequate fill is placed to raise the building above the flood elevation). Additionally, the Ravalli County Commission requires that, before a floodplain permit can be issued, a copy of all other stream permits must be received (for example, 404 permit, 310 permit, etc.). This requirement ensures that all necessary government authorities review a project impacting a river or stream before a floodplain permit is issued and the project can proceed. **For more information**, contact Todd Klietz, Ravalli County Environmental Health, Courthouse, Box 5019, 205

Bedford, Hamilton, MT 59840; (406) 375-6268.

### 2. Missoula County.

Growth in Missoula County has affected watercourses and floodplains. In 1992, Missoula County ap-



proved a 92-lot subdivision west of Missoula along lower Grant Creek. The subdivision was located *outside* the 100-year floodplain boundary on FEMA Flood Insurance Rate Maps. In 1997, during runoff calculated to be less than a 10-year flood, water submerged some of the lots, yards, basements, and the sewage treatment system of this subdivision. As a result, 16 homeowners and the homeowners association filed a lawsuit against the property developer, the developer's engineer, local real estate agents, and Missoula County. A negotiated settlement paid \$2.3 million to the homeowners. Forty-four additional homeowners have since filed suit against the same defendants. In 2001, DNRC commissioned a study that showed that 45 of the homes are in the regulatory floodway. Because Grant Creek's natural meanders had been eliminated, and the creek channelized, the intensity of flooding substantially increased in the subdivision area. It appears that the only feasible way to resolve this problem is to restore 5 miles of Grant Creek, including its riparian vegetation and floodplain—a project that will likely cost millions of dollars.

Regulations governing development within floodplains generally lack the necessary scientific data that shows the impacts of development on waterways. Because of a heightened awareness of flooding issues, and in an effort to direct growth to locations that will minimize property damage and water resource impacts, Missoula County conducted a baseline study, funded by the DEQ Wetland Program, showing the effects of bank stabilization structures on local watercourses (*see DEQ Wetlands Program, page 6-10*). Five watercourses were chosen for the study based on predicted future development pressures; 29 miles of bank in the 121 miles of streams and rivers examined, had bank stabilization structures. Bank stabili-



zation structures can lead to channelization of rivers and streams, which can increase the risk of flooding, property loss, and associated impacts. A description of methods and materials used to conduct the inventory is available as a template for conducting similar studies elsewhere.

The study's inventory and accompanying maps provided Missoula County with a solid base to regulate development in floodplains. As a result, the public and the County Commissioners overwhelmingly supported changes to local floodplain regulations. In addition to prohibiting large-scale clearing of native vegetation within 50 feet of a stream or river, the regulations include the following:

- Prohibit the creation of new levees. Maintenance of an existing levee is allowed in three situations: if the levee is publicly maintained; if relocating, elevating, or flood-proofing the structures protected by the levee is not feasible; or if a stream-side levee is to be reconstructed away from the stream bank.
- Restrict the use of riprap and other rock armament, only allowing them in extreme situations

to protect an existing residential, commercial, or industrial use, or public infrastructure that cannot be relocated. Builders are responsible for locating new structures a safe distance from the waterway and riprap is not permitted to protect a structure built after adoption of the amendments. "Softer" bank stabilization techniques, including logs and other woody debris instead of rock, may be allowed after review by floodplain administrators.

- Require new bridge construction to be designed to cause minimal change in stream velocities and not encroach into the channel, so as to minimize the impacts on the stream course such as water damming, increased stream velocities downstream, and deposition of sediment upstream. The regulations also ensure that road approaches do not block normal overflow channels, and that sediments will not be deposited upstream of the bridge.

*For more information*, contact Office of Planning and Grants, 200 West Broadway, Missoula, MT 59802-4292, (406) 523-4657.

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## Lakeshore Regulations

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### **Purpose:**

To regulate development immediately adjacent to natural lakes of at least 160 acres in size in order to protect the shoreline or bank. Lakeshore permits are required on these lakes for any construction or shoreline alteration on land within 20 feet of the mean annual high water mark. Local governments may also apply lakeshore regulations to lakes that are smaller than 160 acres.

### **Who Enacts It:**

Local governments are required to adopt lakeshore regulations for any natural lake at least 160 acres in size in their jurisdiction.

### **Authority for Tool:**

Lakeshore regulations are authorized under the Lakeshore Regulation Act (Title 75, Chapter 7, Part 2, MCA).

### **How it Works:**

Municipalities and counties with shorelines along lakes of 160 acres or more, including on lakes that have been raised by constructed impoundments (e.g. Flathead Lake), must adopt lakeshore regulations. The regulations require a permit for any activity that will "alter or diminish the course, current or cross-sectional area of a lake or its lakeshore." Examples of these activities include construction of channels and ditches, dredging of lake bottoms, and filling and constructing breakwaters, pilings, wharves, docks, and boat ramps. Local governments must establish a permitting process for development projects. All proposed work is required to be approved, unless the local government shows that the project will impact water quality, habitat for fish and wildlife, natural scenic values, or navigation or other lawful recreation; or create a public nuisance.

## Strengths:

Lakeshore regulations are required where a local government contains shoreline on a lake of at least 160 acres. Local governments are required to regulate development within 20 feet of the high water mark and help protect riparian vegetation and associated wetlands along the lakeshore. Shoreline vegetation is considered important for maintaining water quality, minimizing erosion, and acting as a sediment filter.

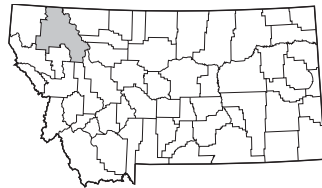
## Weaknesses:

Lakeshore regulations are adopted and enforced for a very small range of lakes, so they benefit only a very limited number of wetlands and riparian areas. Also, the regulations only apply to a 20-foot strip around the lake, which water quality experts have indicated is not adequate to significantly protect water quality and riparian areas (Environmental Quality Council, 1992).

## Montana Case History:

### 1. Flathead County.

Lakeshore regulations in Flathead County apply to all lakes with a water surface of at least 20 acres in size

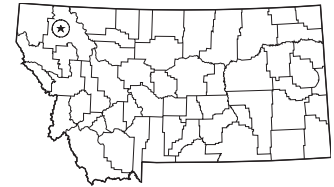


for 6 months of the year. They include criteria for issuing construction permits, a process for variances, design standards for projects, a prohibition on permanent or temporary dwelling units, and a 60-foot limit on docks. For streams and springs running through the Lakeshore Protection Zone, a 25-foot minimum setback is required for all structures. Private individual boat ramps within one lake mile of a public ramp are not allowed. *For more information*, contact the Lindsay Morgan, Flathead County Planning and Zoning Office, 723 5th Ave East, Room 414, Kalispell, MT 59901; (406) 758-5965; the regulations appear on their website at <http://www.co.flathead.mt.us/frdo>.

### 2. City of Whitefish.

Regulations on Whitefish Lake are similar to those in Flathead County, but they do not permit private

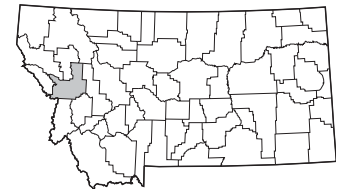
individual boat ramps to be built on the lake. This restriction reduces the amount of development along the lakeshore, consequently assisting in protection of riparian vegetation.



*For more information*, contact Eric Mulcahy, Tri-City Planning Office, 17-2<sup>nd</sup> Street East, Suite 211, Kalispell, MT 59901; (406) 751-1850; the regulations appear on their website at <http://www.tricityplanning-mt.com>.

### 3. Missoula County.

Regulations in Missoula County also apply to all lakes with a water surface area of at least 20 acres.



The regulations are similar to those of Flathead County, with the following additional prohibitions: covering the Shoreline Protection Zone with impervious non-native material, including asphalt, parking areas, jetties, boat houses, roads or driveways that do not serve boat ramps, satellite dishes, overhead power lines, major clearing of vegetation, and more. For streams and springs, the setback for structures is a minimum of 25 feet. However, a minimum setback of 50 feet is required from streams and springs “determined to be important fishery resources.” *For more information*, contact the Office of Planning and Grants, 435 Ryman, Missoula, MT 59802-4297; (406) 523-4657.

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## Local Water Quality Districts (LWQD)

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### **Purpose:**

To establish districts in order to protect, preserve, and improve the quality of surface and groundwater within the district.

### **Who Enacts It:**

County commissioners are authorized to create local water quality districts. With the concurrence of a municipal governing body, districts may include cities or towns. Once created, the districts are administered by a board of directors, which consists of at least one county commissioner, a representative of any participating municipalities, the county health officer, and a representative of the local Conservation District.

### **Authority for Tool:**

Local Water Quality Districts (LWQD) may be created and operated by county commissioners under Title 7, Chapter 13, Part 45, MCA.

### **How It Works:**

County commissioners initiate the creation of a LWQD. Cities or towns may be included in the district if approved by the municipal governing body. A board of directors administers the district—developing a budget, hiring staff, and receiving state or federal grants. LWQDs may establish water quality protection programs with any of a number of different goals. The district does not have the power to regulate—it is the county commission that is responsible for adoption of any local ordinances to protect water quality. However, water quality districts may enforce ordinances passed by the county commission. Currently there are LWQDs in Gallatin, Lewis & Clark, and Missoula Counties.

In Montana, each of the LWQDs has focused on different aspects of water quality. Work done by the districts on wetlands and riparian areas has focused on studies and mapping projects (*see case studies below*). Watershed planning and volunteer monitoring programs have also been developed.

### **Strengths:**

Local Water Quality Districts are designed to protect surface and ground water sources. Since wetlands and riparian areas are important surface waters, and they both contribute to improving water quality, these areas should benefit from district programs. The information gathered in research by the districts helps local governments make more informed decisions about protecting these resources. LWQDs serve as a clearinghouse and network facilitator for area watershed groups. Public outreach, including working with individual landowners, is an important function of districts.

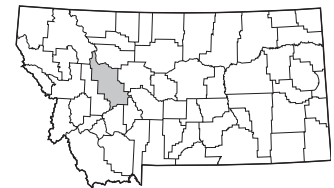
### **Weaknesses:**

LWQDs lack the authority to pass regulations to protect water quality, although they can administer and enforce regulations adopted by their County Commission. Because funding for districts comes from a property tax assessment, resources can be limited for projects, unless outside funds are found.

### **Montana Case Histories:**

#### **1. Lewis & Clark County.**

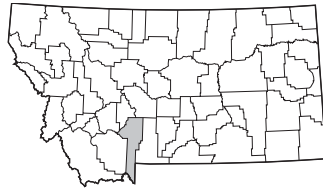
In 2001, the Lewis & Clark County Water Quality Protection District, Lewis & Clark



County Planning Office, Montana Audubon, Last Chance Audubon, and two private consultants completed a wetland resource assessment of the Helena Valley. The project completed the following: a baseline wetland inventory; current and historical wetland maps; and an education program for the community on the importance of wetlands and the findings of the study. This partnership also completed a project to identify and prioritize wetlands in the study area that need protection. The DEQ Wetlands Program funded both projects (*see DEQ Wetlands Program, page 6-10*). **For more information**, contact Kathy Moore at the Lewis & Clark County Water Quality Protection District, 1930-9<sup>th</sup> Ave., Helena, MT 59601, (406) 447-8926.

## 2. Gallatin County.

The Gallatin County Water Quality Protection District, also funded under the DEQ Wetlands Program, is working to establish a countywide GIS database containing historical and current wetlands information for use by government agencies, developers, landowners, and the general public. This project is also



slated to identify, assess, and prioritize wetland areas within the Gallatin Valley and Bozeman Creek watershed that are threatened and/or in need of restoration, and increase public awareness of the importance and current status of wetlands in the Gallatin Valley and Bozeman Creek watershed. **For more information**, contact Alan English at the Gallatin County Local Water Quality District, 311 West Main Street, Room 104, Bozeman, MT 59715, (406) 582-3148.

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## Capital Improvement Programs

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### **Purpose:**

To allow local governments to plan, schedule, and fund the development of capital improvements, including roads, sewer and water lines, buildings, and utilities.

### **Who Enacts This Tool:**

Both county and municipal governments may adopt capital improvement programs.

### **Authority for Tool:**

Capital improvement programs are authorized in Title 7, Chapter 6, Part 6, MCA. They also are a required element of a growth policy (Title 76, Chapter 1, Part 6, Section 601(2)(e), MCA)

### **How it Works:**

Municipalities and counties typically develop a 5-6 year Capital Improvement Program (CIP) for acquiring, installing, constructing, or upgrading public facilities or major equipment—such as sewer systems, streets, roads, bridges, parks and recreation facilities, storm sewers, or major drainage facilities—that often must be financed over a period of years rather than as a one-year budget item. The CIP usually describes the needs for expanding, extending, updating, or rehabilitating capital facilities. After projecting needs, the CIP sets priorities, estimates the costs of each of the needed capital projects, determines likely funding sources, and establishes a schedule for each project over the next 5-6 years.

CIPs can create strong incentives and disincentives

for development around wetlands and riparian areas. Through a CIP, local governments generally coordinate their long-range plans for extending or expanding public utilities or services such as roads, sewers, and drinking water. The availability of these amenities often encourages or accelerates growth. When these services are not provided, development pressures frequently are reduced, limiting growth and—indirectly—preserving open space and wetlands. If a local government conducts a CIP that take into consideration areas that have a high concentration of valuable wetlands or other natural resources, it can then decide to restrict sewage and water services to a specified area, or decide not to pave a road—effectively limiting or slowing growth in sensitive areas.

**Strengths:** CIPs are useful plans that can save significant tax dollars or user charges by thoughtful scheduling and planning of needed public facilities. For that reason, and the fact that CIPs are not regulatory, local citizens typically favor the development of CIPs. Therefore, using a CIP to affect the timing and location of new, upgraded, or extended public facilities is a less controversial tool to encourage new growth to locate in suitable and desirable areas, and away from wetlands and streams.

### **Weaknesses:**

Few counties in Montana have prepared and adopted CIPs. Most of the plans that have been prepared by municipalities and counties address the timing of constructing capital improvements, but rarely the loca-

tion. Therefore, for a CIP to be effective in protecting natural assets such as open space, wetlands, and riparian areas, the local government must have strong policy statements regarding those assets in their growth policy plan, and purposefully implement those policies through planned construction and location of capital improvements.

**Montana Case Histories:**

Because CIPs have not been used in Montana to date for protecting wetlands and riparian areas, there are no case studies available in the state.