

MODULE 3

INTEGRATING WATER EFFICIENCY INTO THE ZONING CODE

A Guide for Colorado Communities

Perhaps the most significant land use power that state legislatures delegate to local governments is the authority to adopt zoning codes. Through these codes, local governments divide their jurisdictions into zones, or districts, and prescribe the land uses and the intensity of development allowed within each district. By doing so, communities create a blueprint for future development, which may change as the local legislature rezones parcels and areas within the community.

Communities should begin by integrating water-efficient land use patterns and strategies into their comprehensive plans (see Module 2 for more on this). Once this is done, this vision can be implemented through changes to the zoning code that permit or require water-efficient land uses in areas targeted for development, discourage development in areas targeted for conservation, and foster building types and landscapes that minimize the use of water. Similarly, communities with limited room to grow can modify zoning to accommodate higher densities and infill development.

Higher density zoning uses may exist within a local code, but zoning standards may be based on a suburban model featuring buildings surrounded by parking. This is inappropriate for in-fill development and new construction in more developed areas where the focus would be better placed on contextual integrity, rather than uniformity. Instead, new zoning standards can be adopted—ones that use different ratios regarding setbacks, lot coverage, open space, livability space, and parking, rather than those found in traditional residential zoning district provisions.

In this Module, we discuss several options for communities to consider for using zoning to foster water-conserving land uses patterns, such as how to:

- Incorporate water-conserving development patterns into as-of-right permitted uses.
- Foster water-efficient densities by permitting accessory dwelling units.
- Incorporate water-conserving land uses into conditionally permitted uses.
- Conditionally permit water-intensive uses upon water-conservation measures.
- Condition rezonings on water-conserving practices.
- Incentivize water conservation through bonus density zoning.
- Use planned unit development regulations to foster water conservation.
- Create a water conservation floating zone.
- Use overlay zoning to designate areas appropriate for conservation and those prioritized for growth.

- Establish a transfer of development rights program with sending districts to preserve areas where it is difficult to provide water efficiently and receiving districts where water can be provided more efficiently.

Which of these options to choose depends on a number of factors, including the current land use pattern and types of buildings in the community. The pattern of development fostered and types of buildings allowed by zoning should respect the current architecture and land development of the community and build gradually from that base. The biggest factors to consider are density, the use of present infrastructure, and the cost of needed additional infrastructure.

It should be noted before proceeding that, for the comprehensive plan to provide the legal support needed for implementing water-conserving objectives, it should contain zoning strategies so that zoning amendments, when adopted, are in conformance with the comprehensive plan (sometimes required¹ but always advisable). Conformance with the comprehensive plan insulates zoning amendments from charges that they violate due process and equal protection rights of land owners or that they constitute illegal spot zoning. Therefore, before proceeding with alterations to a local zoning code, communities should consider first their comprehensive plan and whether amendments should be made to bolster the techniques described in this Module. (This is discussed in more detail in Module 2, *Integrating Water Efficiency into the Comprehensive Master Plan*.)

In general, encouraging infill development helps conserve water because smaller lots tend to have less irrigated landscaping and accommodate smaller households that consume less water per dwelling unit. (Discussed further in Module 1, *Breaking Down Silos: Integrating Water Efficiency into Land Use Planning*.) Much of the following discussion focuses on tools to promote infill development because of this indirect linkage.

1. Incorporate Water-Conserving Development Patterns into As-of-Right Permitted Uses

Traditionally, zoning districts permit certain land uses as of right; uses that cannot be denied unless they fail to meet standards contained in the zoning ordinance for each zone. The boldest and most obvious option for incorporating water-conservation strategies into land use patterns is to amend zoning districts to permit, as of right, uses and patterns that conserve water, such as higher density, single-family homes on small lots, attached town houses, small-scale and large-scale multi-family housing, and mixed-use developments—all directed toward existing infrastructure and, when possible, balanced with open space conservation.

a. Priority Growth & Conservation Areas

¹ See *Generally*, Colorado, COLO. REV. STAT. § 31-23-303 “Such [zoning] regulations shall be made in accordance with a comprehensive plan...”.

If a municipality or county has amended its comprehensive master plan to delineate priority growth areas within the community where more water-efficient forms of development should occur and conservation areas where further development should be discouraged or minimized, then one option is to amend the zoning districts located within those areas to reflect the desired uses and concentration of development.

Zoning in growth areas requires changing the zoning uses and standards in the applicable district to expand housing types allowed, sometimes replacing commercial with residential or mixed-uses, simplifying dimensional standards, reducing parking required, reducing minimum lot and unit sizes, and ensuring livability (such as complete streets, available services and shops, pocket parks, etc.). This may be easier, particularly as an initial strategy, than more complicated and politically-fraught rezoning in less developed neighborhoods.

The list of permitted uses to choose from in amending local zoning to achieve water conservation is extensive and it provides choices fitting nearly every context. In priority growth areas, zoning for multifamily, attached housing, small lot development, in-fill buildings, along with clustered and mixed-use land uses should predominate. In conservation areas, open space and natural resource preservation should be the objective of the zoning uses and lot specifications permitted under zoning. Zoning can also be updated, whether for priority growth districts or conservation areas, to include requirements for water-conserving landscaping and interior and exterior fixtures.

EXAMPLE OF AMENDMENTS TO USE DEFINITIONS TO INCREASE DENSITY IN PRIORITY GROWTH AREAS

Denver, Colorado

Denver is a city where planners have long recognized the need to increase density in certain areas, especially in the context of transit-oriented development. It is also a city where, at least on its suburban periphery, there still exists a strong appetite for large lots. In 2010 Denver approved a new zoning code that lists “promoting conservation of land, energy, and natural resources” as one of its intents.² This new code seeks to preserve the character of Denver’s diverse neighborhoods, but also to encourage compact, pedestrian friendly neighborhoods.³ Among the details of the plan are a decrease in the minimum permitted lot size from 5,000 square feet to 3,000 square feet. It also removed the 600 square foot minimum unit size in apartment buildings.⁴ Water savings associated with

² CITY OF DENVER, CO, DENVER ZONING CODE § 1.1.2(P) (2010), http://www.denvergov.org/Portals/646/documents/Zoning/DZC_Intent.pdf.

³ U.S. DEP’T OF HOUSING & URBAN DEVELOPMENT, *Denver’s New Code Targets Sustainable Growth*, http://archives.huduser.org/rbc/archives/newsletter/vol10iss4_2.html (Last Visited Jan. 16 2015).

⁴ ZONE DISTRICT DESCRIPTIONS & DEFINITIONS, *Denver Zoning Code (Code Version 2010)*, <http://www.denvergov.org/DenverZoningCode/ZoneDescriptions/tabid/437400/Default.aspx> (Last Visted Jan. 16, 2015). See also DON ELLIOTT, NOW THAT WE’RE POOR: THE NEW ECONOMICS OF LAND USE, MARCH 2011, <http://www.law.du.edu/documents/rmlui/conference/powerpoints/ElliottDNowThatWere-2.pdf>.

these changes to as-of-right uses have not been evaluated, but it is likely that increased density and decreased minimum lot sizes will have an impact on water use.

Alternatively, instead of amending district uses, local governments might also consider altering the zoning map to apply new or existing higher-density districts in priority growth areas and lower density districts in conservation areas. The same ends can also be accomplished through other techniques described later, such as overlay zoning, floating zones, etc.

EXAMPLE OF ADDITIONAL ZONING DISTRICTS FOR PRIORITY GROWTH AREAS

Aurora, Colorado

Aurora, Colorado calls its approach “sustainable in-fill redevelopment” and has adopted SIR zoning, incorporating sustainable infill redevelopment districts into its zoning map. Land use regulations in its SIR zone allow a mix of uses in existing denser neighborhoods and along major streets, but outside existing single-family districts.⁵

The opportunities for targeted development areas in many communities include unused or underused retail spaces, failing commercial corridors, and overlooked institutional sites. In these areas zoning probably permits what is currently there and what has failed, calling for new, often higher density, perhaps mixed-use provisions. In these communities, in-fill development can meet much of the growing demand for housing and commercial land uses, pulling that development away from needed open space or sprawling, low-density areas. In some of these communities, a high percentage of development permits are already for replacement buildings or expansion of existing structures. Where this happens, the water use per household and the cost of water infrastructure, in most cases, are much less than that required in single-family, larger lot housing development.⁶

b. Cluster Development

As a means of promoting flexible design and development that preserve natural resources, Colorado law authorizes local governments to request or require a developer to cluster

⁵ CITY OF AURORA, CO, BUILDING AND ZONING CODE § 146-732, SUSTAINABLE INFILL REDEVELOPMENT (SIR) DISTRICT, (2012), https://www.municode.com/library/co/aurora/codes/building_and_zoning?nodeId=BUZOCO_CH146ZO_ART7MIESPDI_DIV7SUINRESIDI_S146-732PU.

⁶ ENVIRONMENTAL PROTECTION AGENCY, GROWING TOWARD MORE EFFICIENT WATER USE: LINKING DEVELOPMENT, INFRASTRUCTURE, AND DRINKING WATER POLICIES 8, 10, 18 (2006), <http://www.epa.gov/smartgrowth/growing-toward-more-efficient-water-use>.

buildings to achieve water conservation.⁷ Over the past 20 years, cluster development has moved from a rare and little understood form of site and subdivision layout to one that is encouraged, incentivized, and sometimes required as the preferred form of raw land development in many communities.

Under cluster statutes, development can vary from the traditional subdivision plat, where lots must conform to all the lot size and coverage requirements in the zoning district where the property is located. A local cluster development ordinance allows the modification of the dimensional requirements set forth in the zoning law to permit lots that are smaller and buildings that are closer together to accommodate the otherwise allowable number of housing units, while conserving larger areas of open space within the subdivision. Used in this way, cluster development can be much like using priority growth and conservation areas, but on a smaller, site-based scale. Clustering is also more cost-effective due to the more efficient servicing of developments with utilities, roads, and other services.

Clustering does not always allow the developer to build additional dwelling units (though bonuses can be built in, as discussed later in this Section and in more detail in Section 5, “Incentivize Water Conservation through Bonus Density Zoning”), but it does permit the local government to approve smaller residential lot sizes, which in turn reduces the size of lawns and the water needed to maintain them. Smaller lots often contain smaller houses, which tends to reduce indoor water use. Clustering, in this way, provides an optional method to achieving the smaller homes on smaller lots that is proven to lower per household water consumption. (See Module 1 for more on the relationship between development size and water use.)

Instead of, or in addition to, rezoning areas from large lot, single-family homes to small lot houses, local governments can amend the permitted land uses in residential zoning districts to include cluster development.

EXAMPLE CLUSTERING IN PERMITTED USES

Raleigh, North Carolina⁸

Raleigh has included Cluster Unit Developments as permitted uses in many of its

⁷ Local governments may encourage or require clustering based upon the enabling legislation giving them the general authority to pass zoning and subdivision regulations. COLO. REV. STAT., §§ 30-28-113, 31-23-301 (giving counties and municipalities the power to pass zoning regulations), COLO. REV. STAT. §§ 30-28-133; 31-23-214 (giving counties and municipalities the power to pass subdivision regulations). Although counties are restricted from regulating subdivisions where all lots are 35 acres or more, State law provides an exemption to this limitation for the approval of cluster developments. COLO. REV. STAT. § 30-28-101, 401.

⁸ CITY OF RALEIGH, NC, *Permitted Land Uses In Zoning Districts*, <https://www.raleighnc.gov/business/content/PlanDev/Articles/Zoning/PermittedUses.html> (last visited January 13 2015); CITY OF RALEIGH, NC, PLANNING AND DEVELOPMENT/UNITED DEVELOPMENT ORDINANCE (UDO) §10-2101 CLUSTER UNIT DEVELOPMENT REGULATIONS, https://www.municode.com/library/nc/raleigh/codes/code_of_ordinances?nodeId=PLDEUNDEORUD_PT10_PLDE_CH2ZO_ARTFPLREDERE_S10-2101CLUNDERE.

residential districts. Defined as planned residential developments, the development may include townhouses, condominiums, group housing, and multi-family developments. The size of the development varies on the District's permitted density but may require ten or twenty acres minimum of open space.

Local governments should be mindful when using a cluster approach that, while cluster development does reduce land consumption and lot size, one of the key water consumption factors in residential land use is the amount of irrigated landscape—which could be the same, greater, or smaller, regardless of whether development is clustered or not. An over-irrigated cluster lot could consume more than a xeriscaped traditional lot. Clustering was designed to preserve open space and natural resources in general. Included in its objectives, however, can be the conservation of water and the protection of water quality. The land preserved by clustering becomes an asset in water management, particularly if it is subjected to use controls, best practice standards, or governed under a conservation easement or a homeowner's association's covenants and restrictions. Local governments can incorporate the full range of water quality conservation practices into a cluster zoning ordinance.

EXAMPLES OF CONSERVATION OBJECTIVES IN CLUSTERING REGULATIONS

Durango, Colorado⁹

The City of Durango's Land Use and Development Code stipulates that the layout of residential cluster neighborhoods should promote the character of the zone in which they are located and be designed to protect significant natural, historic, or archeological resources. Among other requirements, the cluster development must be designed to emphasize the protection of natural resources and meaningful open space, including that buildings shall be located to provide contiguity of common open space, resource protection areas, and agricultural lands (if present). Lot lines and lot areas must be established to provide for the most appropriate conservation of the open space areas of the development. Additionally, the provision's design standards include a requirement for cluster residential neighborhoods to have a defined conservation objective or combination of objectives based on either protecting priority resources (such as water) or providing a large common open space amenity (such as community gardens).

Pinal County, Arizona¹⁰

Pinal County, just south of Phoenix, has recently experienced tremendous suburban growth from the greater Phoenix-Mesa-Scottsdale Metropolitan Area. Pinal County's code allows for cluster zoning that provides for the voluntary, permanent conservation of open space

⁹ CITY OF DURANGO, CO, LAND USE AND DEVELOPMENT CODE § 4-1-3-5 CLUSTER DEVELOPMENT (2014), <http://online.encodeplus.com/regs/durango-co/doc-viewer.aspx?secid=298#secid=298>.

¹⁰ PINAL COUNTY, AZ, PINAL COUNTY DEVELOPMENT SERVICES CODE § 2.40.040 CLUSTER OPTION (2012), <http://www.codepublishing.com/az/pinalcounty/html/PinalCounty02/PinalCounty0240.html>.

and the protection of natural features including: riparian areas, rock outcrops, and natural topography. The code's purpose for cluster development is to preserve the significant natural open space areas without increasing overall residential densities and to encourage and provide incentives for site planning that is harmonious with the natural features and constraints of property. This development is also more cost-effective due to the more efficient servicing of the development with utilities, roads, and other services.

Peterborough, New Hampshire

New Hampshire permits cluster development and encourages its use as an innovative land use control.¹¹ Under this State-granted authority, the Town of Peterborough adopted a cluster development provision in its zoning code that seeks to “permit greater flexibility in the design of housing projects; discourage development sprawl; facilitate the economical and efficient provision of public services; [and] preserve more usable space, agricultural land, recreational areas, and scenic vistas.”¹² Peterborough permits residential clustering as a special exception in its General Residence and Rural Districts and as-of-right in its Retirement Community District.¹³ The maximum number of dwelling units permitted in a clustered development may not exceed the density allowed in the zoning district where the parcel is located. The town's cluster development provision requires that a minimum of 30% of the total land area be dedicated as common open space. To ensure that the open space remains undeveloped, title to the open space must be deeded to a neighborhood association, the town, or to a conservation organization. The regulations require that the development be situated so as to minimize alteration of the parcel's natural features and to protect the surrounding landscape and the character of adjacent development.

Cluster regulations also may encourage or require buildings to be closer to the street. These are design techniques that create water-conserving patterns and building types, reduce water infrastructure costs, and reduce water lost in delivery (as discussed in more detail in Module 1). Some developers see financial advantages to cluster subdivisions because, by placing the buildings closer together and closer to infrastructure, there is a cost savings on expenditures for roadways, sidewalks, water and sewer extensions, and other on-site infrastructure. Such benefits to developers have been upheld by the courts as incidental and not reducing the valid public purpose of providing for open space, water conservation, recreation, and a host of other community gains.

EXAMPLE OF REDUCING DEVELOPMENT COSTS THROUGH CLUSTERING

¹¹ N.H. REV. STAT. ANN. §674:21, <http://www.gencourt.state.nh.us/rsa/html/lxiv/674/674-21.htm>.

¹² TOWN OF PETERBOROUGH, N.H., CODE §245-26(A) OPEN SPACE RESIDENTIAL DEVELOPMENT, http://www.townofpeterborough.com/vertical/sites/%7B792D537E-D69C-464A-80FB-790917F72F17%7D/uploads/Chapter_245_Zoning_May_2016_Final.pdf.

¹³ TOWN OF PETERBOROUGH, N.H., CODE §245-11.2, http://www.townofpeterborough.com/vertical/sites/%7B792D537E-D69C-464A-80FB-790917F72F17%7D/uploads/Chapter_245_Zoning_May_2016_Final.pdf.

South Brunswick, New Jersey

In response to an increasing number of housing developments in South Brunswick, New Jersey, the planning board adopted a cluster development ordinance that was challenged in *Chrinko v. South Brunswick Township Planning Board*.¹⁴ The ordinance allowed a subdivision developer to reduce a minimum lot size by 20% or 30% and minimum frontages by 10% or 20% if developer deeded 20% or 30% of the subdivided tract for parks, school sites, and other public purposes. The purpose of this provision—innovative when it was first adopted—was to provide a method for development of residential land to preserve desirable open spaces, school sites, recreation and park areas, and land for other public purposes. The plaintiffs claimed that the ordinance was enacted to benefit the developer and not to accomplish the stated purpose of the zoning enabling statute. The court held that giving developers the option of using cluster development reasonably advanced the legislative goal of providing for open space even if the developer derives an incidental benefit—such as lower costs of development for street and utility installation.

State law varies widely regarding clustering. Some states do not allow localities to cluster at all, some allow it only if the developer volunteers to cluster, others permit incentives for developer compliance, and in others clustering can be a requirement. For example, some state statutes allow localities to provide applicants with an incentive for the clustering by increasing the otherwise allowable density in exchange for the provision of open space. Under this arrangement, if the developer would normally have been permitted to create 40 lots in a traditional plat, the applicant with a cluster plat may be able to site 44 lots.

The State of Colorado explicitly permits cluster development under its rural land use process.¹⁵ The Colorado legislature has declared it is in the public interest to encourage the clustering of residential dwellings as a means of preserving open space, and allowing landowners to implement smart growth. The State wants to preserve open space, protect wildlife habitat and critical areas, and enhance and maintain the rural character of lands for long-range farming and ranching operations. In an effort to preserve open space and water resources, a cluster development in Colorado may obtain only one well permit for each single-family residential lot.¹⁶ Additionally, cluster development regulations in Colorado allow for the use of clustering, water augmentation, and density bonuses for parcels that do not exceed two units for each 35-acre increment.¹⁷

The local subdivision review agency, usually the planning commission, may impose conditions on its approval of a clustered subdivision regarding a variety of measures including water conserving landscaping and interior facilities. The use of bonus density incentives (discussed later in Section 5) can both encourage developers to use clustering,

¹⁴ *Chrinko v. South Brunswick Twp. Planning Bd.*, 187 A.2d 221 (N.J. 1963).

¹⁵ COLO. REV. STAT. § 30-28-401 (2016).

¹⁶ COLO. REV. STAT. § 30-28-404 (2016).

¹⁷ COLO. REV. STAT. § 30-28-403 (2016).

where it is not required, and to adopt highly effective water conservation measures both on the land and inside the buildings.

EXAMPLE OF OPEN SPACE INCENTIVE IN CLUSTER ORDINANCE

Milton, New York

The Town of Milton's cluster subdivision ordinance offers an "open space incentive option" that authorizes the planning board to increase the maximum density in the Town's R-2 zoning district. The planning board may increase the number of permitted residences by 50% on properties greater than 10 acres if 50% of the land becomes permanently protected open space.¹⁸

2. Foster Water-Efficient Densities by Permitting Accessory Dwelling Units

Accessory dwelling units are an important option for developed communities looking to increase density without altering neighborhood character. Some communities have adopted zoning provisions that allow single-family homeowners to establish a second, accessory living unit in their houses, under a variety of conditions.

Accessory uses, by definition, are uses of land that are found on the same lot as the principal use and are subordinate, incidental to, and customarily found in connection with the principal use. Generally, zoning laws state that lot owners may use their land for a permitted principal use and for activities that are accessory to that use. By permitting uses customarily incidental and subordinate to the principal activity, zoning ordinances allow property owners additional beneficial use of their property. While there is no specific delegation of power to local governments to provide for accessory uses, they have authority under state enabling statutes to regulate land under the police power. This is a broad authority designed to promote public health, safety, morals, and general welfare. Zoning laws that regulate accessory uses are generally valid so long as they promote these goals (unless the state has explicitly restricted their ability to permit that accessory use). Since the regulation of accessory uses promotes harmony of land use within regulated districts, it is permissible pursuant to the police power.

Local governments may permit accessory dwelling units as-of-right in residential neighborhoods to foster an element of the land use patterns that conserve water, including higher-density, single-family homes on small lots, directed toward existing infrastructure—all while maintaining compatibility with the surrounding neighborhood.

While some strategies in this Module assume communities are able to balance density with open space, permitting accessory dwelling units is a way for communities with limited land

¹⁸ TOWN OF MILTON, NY, Zoning Code §§ 180-30, OPEN SPACE INCENTIVE OPTION, <http://ecode360.com/9165132#9165132>.

to grow without sprawling outwards and while still maintaining neighborhood character. A zoning code amendment to this effect could permit an additional dwelling unit as accessory to a primary, single-family unit with additional limitations to maintain residential character, such as:

- Owner occupancy of either the primary or accessory unit;
- A limitation on the number of accessory units permitted per lot (typically one);
- A maximum floor area for the accessory unit;
- A maximum height where the accessory unit is detached;
- Standards regarding the placement and appearance of an external stairways when needed to access the accessory unit;
- Standards related to the exterior appearance of the accessory unit, including a prohibition on exterior alterations that would affect the residential character of the property; and
- Standards related to parking, and other exterior evidence of the accessory unit.

Local governments should note that water providers might charge an additional tap fee, instead of considering an accessory dwelling to be an expansion of an existing tap, even where the structure was existing and no new infrastructure is needed. This fee could make the accessory unit cost-prohibitive for the homeowner. Communities interested in encouraging accessory dwelling units as a method to increase density should be mindful to work closely with water providers in this effort.

EXAMPLE OF INCREASING DENSITY THROUGH ACCESSORY DWELLING UNITS

Lakewood, Colorado¹⁹

The City of Lakewood amended its zoning code to allow for accessory dwelling units in an effort to permit “mother-in-law” apartments as well as to quickly allow for additional density while maintaining community character.²⁰ The City’s ordinance permits a primary single-family dwelling unit on a lot of at least 9,000 square feet to have one accessory unit so long as either the primary or accessory unit is occupied by the property owner and so long as the accessory unit is located to the side or rear of the primary unit, with no more than one bedroom, a maximum of 700 square feet of gross floor area, a maximum height of 30 feet (if detached), and an exterior that is similar in appearance to the primary unit and maintains the residential character of the property. If located on a second floor or above a garage, the accessory unit may have a separate external stairway, so long as it is not on the street-facing façade.

Since the code amendment, the City has received and approved significantly fewer accessory units than anticipated, discovering that when homeowners would contact the

¹⁹ CITY OF LAKEWOOD, CO, MUNICIPAL CODE §17.4.3.1(A) PURPOSE AND APPLICABILITY (2015), http://www.lakewood.org/City_Clerk/Codes_and_Laws/Municipal_Code/Title_17_-_Zoning/Article_4_-_Uses_and_Supplemental_Standards/17_4_3_-_Supplemental_Standards/2147506011/.

²⁰ Lakewood Representatives, Land Use Leadership Alliance Training Program (LULA), Denver, CO (April 30, 2015); email interview with Henry Hollender, HVS Engineering (April 11, 2016).

water providers to expand their existing tap, the water providers would charge tap fees as if the accessory unit were a new home (regardless of whether the structure and infrastructure were already existing), making the project cost prohibitive.²¹

3. Incorporate Water-Conserving Uses into Conditionally-Permitted Uses & Conditionally Permit Water-Intensive Uses Upon Water Conservation Measures

Zoning also traditionally singles out some land uses that are allowed in designated zoning districts on the condition that they are compatible with the surrounding neighborhood; these are called conditional uses and permitted by the issuance of a special use or conditional use permit. Local governments may use special use permits to further water conservation in two main ways.

- First, if a municipality or county is uncomfortable with allowing certain water-conserving land uses as-of-right (in the manner described in Section 1, above—see “Incorporate Water-Conserving Uses into As-of-Right Permitted Uses”), then it may designate them as conditional uses, allowing them, subject to more intense planning commission review and the imposition of conditions that ensure that they are appropriate in the neighborhood. In existing single-family neighborhoods, for example, small lot attached homes or small multi-family housing can be permitted as conditional uses, which gives the planning commission an opportunity to review each project more carefully and to impose specific conditions to mitigate any adverse impacts of the project on the surrounding neighborhood.

EXAMPLE OF CONDITIONALLY PERMITTING WATER-CONSERVING USES

***Richland, Washington*²²**

Richland’s residential zoning districts include a medium-density residential small lot (R-2S) zone that permits higher densities and encourages small lot development conducive to energy conservation and affordable housing units (and, incidentally, water conservation). In order to assure consistency with the R-2S district and to avoid potential negative effects of the rezoning or reclassification of land, an applicant must include in their application for preliminary plat approval: a street landscaping plan, information showing the dimension and character of open space, and appropriate design solutions in modifying possible interference with the surrounding neighborhoods. The Planning Commission and City Council may impose requirements and conditions on the preliminary plat approval or rezoning classification that include, but are not limited to, architectural design parameters,

²¹ Lakewood Representatives, Land Use Leadership Alliance Training Program (LULA), Denver, CO (April 30, 2015).

²² CITY OF RICHLAND, WA, MUNICIPAL CODE, § 23.18.20 RESIDENTIAL ZONING DISTRICTS, <http://www.codepublishing.com/WA/Richland/mobile/?pg=Richland23/Richland2318.html#23.18>.

screening and buffering treatments, and supplemental open space. In furtherance of this neighborhood design, multi-family zoning districts that abut a single-family zoning district must follow certain buffer, setback, and building height regulations in order to blend in with the surrounding neighborhood.

- Second, a municipality or county could use special use permits to restrict water-intensive uses in order to examine a use's impact before granting approval and to impose conditions that reduce that impact. Examples of such conditions include: limiting hours, days, and manner of certain operations; architectural design to minimize environmental impact; and requiring specific landscaping and drainage to reduce water waste.²³

EXAMPLES OF CONDITIONALLY PERMITTING WATER-INTENSIVE USES

Kiowa, Kansas²⁴

The City of Kiowa, Kansas, classifies greenhouses, nurseries, and/or hydroponic farms operated as a retail business as conditionally permitted uses. As a result, they must be reviewed and must receive a conditional use permit. This allows the City to examine the impact the use will have and may allow the City to place certain restrictions on the operation of the facility.

Gray County, Kansas²⁵

Gray County, Kansas identifies certain conditionally permitted uses including strip malls and multi-family residential dwellings. These uses will be permitted if a review is conducted and it is demonstrated that there is adequate water and other infrastructure for the use.

4. Condition Rezoning on Water-Conserving Practices

An alternative to broadly rezoning lands to one or more water-conserving uses or to conditionally permitting those uses is to rezone parcels, one at a time, either by using an adopted policy that conditions such rezonings on water-conserving practices, or by doing so through a development agreement that includes water-conserving measures. The rezoning can be extraordinarily valuable for the landowner, providing more density and

²³ CITY OF BEND, OR, BEND DEVELOPMENT CODE, § 4.4.400(c)(7) (2006), <http://www.codepublishing.com/OR/Bend/html/BendDC04/BendDC0404.html>.

²⁴ CITY OF KIOWA KS ZONING REGULATIONS, §§ 19-101-11(2011), <http://www.kiowaks.org/wp-content/uploads/2012/07/Zoning-Article-19-CUP.pdf>.

²⁵ GRAY COUNTY, KS, ZONING REGULATIONS ART. 14 §14-101, <http://www.grayco.org/LinkClick.aspx?fileticket=qmNRAFuBWn4%3D&tabid=4741&mid=6896>.

profit than the existing zoning. This value can be captured to accommodate the water-conservation needs of the community and ensure a livable environment on and around the subject parcel. Such individual parcel rezoning must be done in conformance with the comprehensive plan to reduce the chance that it will be challenged as spot zoning.

a. Policy-Based Conditions

Local governments can adopt review criteria for amendments to their official zoning map. Within these criteria, they can include a requirement to make findings related to a rezoning's impact on water resources and a requirement to mitigate that impact.

EXAMPLES OF CODE PROVISIONS INCORPORATING WATER AS A FACTOR IN REZONINGS

Española, New Mexico

Under the Española Zoning Code's "Review Criteria for Amendments to [the] Official Zoning Map", the Planning Commission and the City Council, in conjunction with applications to rezone properties, must make findings regarding the impact of the project on the community and may add conditions to the rezoning to ensure that those impacts are mitigated. In making these findings, consideration must be given to the existing and programmed capacity of on-site and off-site public services including water.²⁶

Westminster, Colorado

Westminster's Comprehensive Plan²⁷ is highly detailed and is adopted by ordinance, not by resolution, making compliance with the Plan a legal requirement.²⁸ (In Colorado, a comprehensive plan can be a binding regulatory document if the local legislature adopts it as such by way of land development regulations, which does not happen often.²⁹) Under the Plan, the extent of water use is a key consideration in the location, type, and intensity of land uses and development within the City.³⁰ The City's Comprehensive Water Supply Plan (CWSP) evaluates the current water supply projection and projected water demands based on the Comprehensive Plan in order to quantify any expected deficits or surpluses and the

²⁶ CITY OF ESPAÑOLA, NM, ZONING CODE § 404(3), REVIEW CRITERIA FOR AMENDMENTS TO OFFICIAL ZONING MAP, <http://www.ecode360.com/14542582>.

²⁷ CITY OF WESTMINSTER, CO, COMPREHENSIVE PLAN (2015), http://www.ci.westminster.co.us/Portals/0/Repository/Documents/CityGovernment/Community%20Development/COMPLETE%20Comp%20Plan_2015%20Update_WEB.pdf.

²⁸ City of Westminster, CO, Ordinance No. 2475 (1997). *See also*, CITY OF WESTMINSTER, CO, COMPREHENSIVE PLAN 94 (2015),

http://www.ci.westminster.co.us/Portals/0/Repository/Documents/CityGovernment/Community%20Development/COMPLETE%20Comp%20Plan_2015%20Update_WEB.pdf.

²⁹ COLO. REV. STAT., §§ 30-28-106(2)(a), 31-23-206(1).

³⁰ CITY OF WESTMINSTER, CO, COMPREHENSIVE PLAN 28 (2015), http://www.ci.westminster.co.us/Portals/0/Repository/Documents/CityGovernment/Community%20Development/COMPLETE%20Comp%20Plan_2015%20Update_WEB.pdf.

Comprehensive Plan notes that, as such, new development will be evaluated based on projected impacts to the City's water supply.³¹ Because the City's water supply projections are so closely linked to its designated land uses, the City must identify the potential change in water demand that would result from any proposed decision to change a land use from what is currently permitted under zoning.³²

Over the past decade, there has been a trend at the local level for communities to require new development and substantial renovations to comply with green development standards contained in third party certification systems. Many of those systems have water conservation standards, which, if complied with, can yield points toward certification. Local governments can adopt rezoning policies requiring applicants for a rezoning to comply with the water conservation standards in these rating systems.

EXAMPLE OF GREEN BUILDING STANDARDS AS A FACTOR IN REZONINGS

Vancouver, British Columbia, Canada³³

Vancouver's Green Rezoning Policy requires all buildings applying for rezoning to commit to achieving Gold-level green building certification, including water-conservation requirements. Specifically, buildings that meet the minimum requirements to participate in the LEED for New Construction (LEED-NC) program must commit to achieving a minimum of 63 points (Gold-level certification) in that program and earn a minimum of one water efficiency point and one stormwater point. Because LEED-NC also has a water-efficiency prerequisite (of achieving 20% water use reduction over the building's calculated baseline), Vancouver's requirement essentially commits rezoning applicants to achieve points in two of the possible four LEED water efficiency point categories³⁴ as well as one of the two stormwater points in the Sustainable Sites category. Buildings that are either not eligible or extremely ill-suited to participate in LEED-NC must achieve an EnerGuide score of 82 and a minimum of Gold-level certification in either the Built Green BC or LEED for

³¹ CITY OF WESTMINSTER, CO, COMPREHENSIVE PLAN 172 (2015),

http://www.ci.westminster.co.us/Portals/0/Repository/Documents/CityGovernment/Community%20Development/COMPLETE%20Comp%20Plan_2015%20Update_WEB.pdf.

³² City of Westminster, CO, Representatives, Land Use Leadership Alliance Training Program (LULA), Denver, CO (April 30, 2015).

³³ CITY OF VANCOUVER, GREEN BUILDINGS POLICY FOR REZONINGS (2014),

http://vancouver.ca/files/cov/green_building_policy_for_rezoning.pdf.

³⁴ Water conservation elements contained in the LEED-NC rating system include the use of water-efficient landscaping (1 point), installation of innovative wastewater technologies (1 point), and employing strategies that, in the aggregate, reduce water use by a minimum of 20% over a building's calculated baseline, not including irrigation (20% is a prerequisite—reduction beyond that earns points incrementally: 2 points for a 30% reduction, 3 points for a 35% reduction, and 4 points for a 40% reduction).

Homes rating systems. If neither of these systems is applicable, the City will consider an equivalent green standard in order to approve the rezoning.³⁵

b. Negotiated through Development Agreement

During the rezoning process, local governments can enter into development agreements with a site's developer incorporating provisions that guarantee maximum water conservation. These agreements can also include detailed design and infrastructure features to ensure that the new development fits properly into the surrounding area both aesthetically and physically.

EXAMPLE OF CONDITIONAL REZONING IN A DEVELOPMENT AGREEMENT TO ACHIEVE WATER CONSERVATION

Tucson, Arizona

Civano is a planned community near Tucson, Arizona, that was conceived and founded with the intent of establishing a working model for sustainable development. The Arizona State Land Department dedicated the land for the project and the City of Tucson approved rezoning on the condition that the property be used to advance the 1991 Civano Master Plan. The Rezoning Conditions were originally established by ordinance.³⁶ In 1995, the Civano IMPACT System Standards were approved to implement rezoning conditions that required conformance with resource conservation goals, including: to reduce residential potable water use to 53 gallons per day.³⁷

In 1996 the City approved a development agreement between the city and a joint venture and the property was purchased. The agreement guaranteed that IMPACT standards would be implemented and the performance against targets would be monitored and reported to the city. Conservation measures included limiting site clearance for residential lots; protecting important plant species; applying city xeriscape landscape standards to all new developments; and requiring the use of non-potable water for landscape irrigation through

³⁵ In giving applicants the option of an “equivalent” rating system, Vancouver’s policy qualifies this option to systems for which equivalent or greater performance and rigor can be demonstrated. Programs that are widely proven, have broad credibility, and are third party verified are preferred. For example, the City does not view Green Globes as equivalent in performance to LEED; instead, systems such as Passiv Haus, BREEAM, and Living Buildings are preferred alternatives.

³⁶ CITY OF TUCSON, AZ, CIVANO MASTER PAD, 2005, <http://www.tucsonaz.gov/files/pdsd/plans/civanopadall.pdf>.

³⁷ James C. Schwab, American Planning Advisory Service Report No. 574, *Planning and Drought*, 144 (2013), <https://www.drought.gov/media/pgfiles/PAS574.pdf>. *See also*, TUCSON, AZ, CITY OF TUCSON GUIDELINES FOR DEVELOPERS AND BUILDERS: THE REVISED IMPACT SYSTEM, 10 (2003) http://www.civano1.com/pages/documents/Civano_IMPACT_System_Dec_8_2003.pdf.

the use of reclaimed water, greywater systems, water harvesting systems, and other alternative irrigation systems.³⁸

According to the monitoring reports, Civano has been successful in reducing potable water usage well below the minimum baseline. One study of water use in 2006 showed that Civano's water use was 55% below Tucson's average use, and another found that the 2007 use was 59% below the city average.³⁹

Local governments in many states may enter into development agreements in order to give more certainty to the development process and insure that the public interest in matters such as water conservation, building and site design, and infrastructure is accommodated. Under Colorado law, development agreements can provide that the developer's rights in a rezoning become vested for a period longer than three years. The result is that if a local government pledges in a development agreement not to change the rezoning and a subsequent city council does so, it may be liable to compensate the developer for any costs subsequently incurred in reliance on the agreement. In Colorado, the validity of a development agreement limiting the local government's power to rezone the property for over 20 years was upheld, although this time period is much longer than those upheld in many other jurisdictions.⁴⁰

Some attorneys, planners, and policy-makers object to this intense negotiation regarding each affected parcel of land, preferring instead the predictability and transparency of as-of-right zoning of land. Increasingly, local governments are finding that fixed use zoning is not flexible enough to meet the rapidly changing environment in which land use planning and zoning operates. To accommodate changing markets, demographics, and environmental influences, more flexibility is needed, particularly in rapidly developing communities. Providing for ample participation of affected individuals and interest groups in negotiations can provide the desired transparency, while serving the interests of all affected groups.

5. Incentivize Water Conservation through Bonus Density Zoning

Bonus density zoning can be used to accomplish a wide range of objectives and is appropriate for use in growth areas as well as conservation areas. As noted in Section 4, above (see "Condition Rezonings on Water-Conserving Practices"), developers can be awarded additional density over that allowed as of right in exchange for implementing water conservation practices, such as xeriscaping, water-efficient plumbing fixtures, or

³⁸ CITY OF TUCSON, AZ, CITY OF TUCSON GUIDELINES FOR DEVELOPERS AND BUILDERS: THE REVISED IMPACT SYSTEM, 10 (2003), http://www.civano1.com/pages/documents/Civano_IMPACT_System_Dec_8_2003.pdf.

³⁹ CITY OF TUCSON, AZ, CITY OF TUCSON GUIDELINES FOR DEVELOPERS AND BUILDERS: THE REVISED IMPACT SYSTEM, 5 (2003), http://www.civano1.com/pages/documents/Civano_IMPACT_System_Dec_8_2003.pdf.

⁴⁰ *Geralnes B.V. v. City of Greenwood Village*, 583 F. Supp. 830 (D. Colo. 1984).

even water recycling facilities. Additional density may come in the form of additional dwelling units, increased floor area ratio (FAR), relaxed requirements for minimum lot size, lot width, setback, parking, height limitations, and the like—all of which can translate into significant additional profit for the developer. With multifamily residential, for example, the additional (or “bonus”) units are cheaper to build because the cost of the land and the infrastructure serving the overall project are already absorbed by the as-of-right units. Part of this additional profit can be captured by having developers pay for water conservation practices and capital facilities that they would normally resist.

In addition, bonus density zoning can be used to increase the development potential on infill sites or parcels in priority growth districts. Such sites may bring with them the costs of upgrading existing water and other infrastructure or providing needed green infrastructure or other amenities off-site to soften the impact of the higher density. Bonus densities may be used to incentivize developers to provide these off-site amenities or to pay cash in lieu of providing them, which cash can be used by the community to provide needed improvements in and around the affected buildings.

Bonus density zoning works in conjunction with the underlying zoning. In a multi-family zone, for example, allowing 20 dwelling units per acre, the bonus provision can give the developer a 10% bonus, or two additional units, in exchange for providing delineated water-conserving benefits needed by the community. This means that the underlying zoning must permit land uses and building types that are water conserving and appropriate for the neighborhood. The first step in getting this done correctly is to adjust the underlying zoning, then to add additional density as a bonus for the kinds of water conserving measures desired.

As illustrated below, bonus density zoning can be used to accomplish a wide range of objectives and is appropriate for use in priority growth areas as well as conservation areas.

EXAMPLES OF BONUS DENSITY ZONING TO INCREASE WATER EFFICIENCY

Asheville, North Carolina⁴¹

Asheville, North Carolina, adopted requirements and zoning incentives for sustainable development projects, which the City allows by-right—subject to special requirements—in several of its zoning districts, including certain residential multifamily, office, business, institutional, and commercial industrial districts. The development incentives relax density, minimum lot size, lot width, setback, parking, and height requirements in exchange for sustainable development amenities. Specifically, these include:

- A density bonus for projects that feature green building amenities (including water efficiency measures for the building and site), infill and brownfield development,

⁴¹ CITY OF ASHEVILLE, NC, CODE OF ORDINANCES, § 7-16-1 *ET SEQ.*, USES BY RIGHT, SUBJECT TO SPECIAL REQUIREMENTS (2010), https://www.municode.com/library/nc/asheville/codes/code_of_ordinances?nodeId=PTIICOR_CH7DE_AR_TXVIUSRISUSPRECOUS_S7-16-1USRISUSPRE.

proximity to mixed uses and housing types, proximity to transit, and several other specified features.⁴² Density bonus size depends on the project's total accumulation of points from the City's "Sustainable Development Projects Bonus Evaluation Form" created by staff.

- A 30% reduction in minimum lot size, lot width, and setback requirements for single family structures in a new single family subdivision if:
 - Dedicated community open space is provided at a minimum rate of 500 square feet per unit. Community open space areas must be maintained for the benefit of the entire community and must be accessible by all units in the community either directly or by a sidewalk or trail system, and/or
 - The subdivision is within 300 feet of a public park where a connection is provided by sidewalk or greenway.⁴³
- A 25% reduction in off-street parking requirements if:
 - At least 60% of the units are affordable (as defined by the City of Asheville) and if the City's traffic engineer and planning director determine that adequate on-street parking is available within a 100-foot radius to off-set the balance of spaces needed, or
 - At least 60% of the units are one-bedroom or efficiency apartments.⁴⁴
- An extension of height maximums by an additional 10 feet if 100% of the units are affordable or the project achieves LEED Silver or higher.⁴⁵
- A 30% reduction in lot size, lot width, and setback requirements if the project seeks no density bonus and meets Bronze (or higher) LEED certification or NC Healthy Built Homes certification.⁴⁶

It should be noted that water conservation elements contained in the LEED rating system include the use of water-efficient landscaping, installation of innovative wastewater technologies, and employing strategies that, in the aggregate, reduce water use by a minimum of 20% over a building's calculated baseline (not including irrigation).

Garfield County, Colorado⁴⁷

The County of Garfield's Land Use and Development Code contains design standards for

⁴² Affordable housing, on-site renewable energy systems, and/or energy efficiency technologies.

⁴³ CITY OF ASHEVILLE, NC, CODE OF ORDINANCES, § 7-16-1(F)(2), https://www.municode.com/library/nc/asheville/codes/code_of_ordinances?nodeId=PTIICOR_CH7DE_AR_TXVIUSRISUSPRECOUS_S7-16-1USRISUSPRE.

⁴⁴ CITY OF ASHEVILLE, NC, CODE OF ORDINANCES, § 7-16-1(F)(3), https://www.municode.com/library/nc/asheville/codes/code_of_ordinances?nodeId=PTIICOR_CH7DE_AR_TXVIUSRISUSPRECOUS_S7-16-1USRISUSPRE.

⁴⁵ CITY OF ASHEVILLE, NC, CODE OF ORDINANCES, § 7-16-1(F)(4), https://www.municode.com/library/nc/asheville/codes/code_of_ordinances?nodeId=PTIICOR_CH7DE_AR_TXVIUSRISUSPRECOUS_S7-16-1USRISUSPRE.

⁴⁶ CITY OF ASHEVILLE, NC, CODE OF ORDINANCES, § 7-16-1(F)(5), https://www.municode.com/library/nc/asheville/codes/code_of_ordinances?nodeId=PTIICOR_CH7DE_AR_TXVIUSRISUSPRECOUS_S7-16-1USRISUSPRE.

⁴⁷ GARFIELD COUNTY, CO LAND USE AND DEVELOPMENT CODE (2013), § 7-501 DESIGN STANDARDS FOR CONSERVATION SUBDIVISIONS, <http://www.garfield-county.com/community-development/documents/land-use/Complete-Land-Use-and-Development-Code-07.15.2013.pdf>.

conservation subdivisions, which offer an Increased Density Development Plan (IDDP) option. Under the IDDP, development plans may include an increased number of residential lots and reduced minimum lot sizes beyond what is permitted in the underlying zoning, while still adhering to existing setback requirements. The County awards the number of bonus lots in proportion to the amount of open space proposed in the Plan. Within the Code, qualifying open space can include a parcel of land, an area of water, or a combination of land and water.

Suffolk, Virginia

The City of Suffolk, Virginia, uses incentive zoning to conserve natural resources. Located in the southeast corner of the state along the James River, the City contains extensive woods, lakes, rivers, and rolling terrain. Under Suffolk's incentive zoning ordinance, developers may receive density bonuses—in some instances up to 140% of the existing density—in exchange for providing a variety of public amenities. Density bonuses may be provided for the creation of public parks; the preservation of open space, agricultural land, or critical environmental areas; the construction of retirement housing; the redevelopment of existing commercial strip centers; the construction of traditional neighborhood development; or clustering. Determination of the density bonus is based upon a formula established under the City's Unified Development Ordinance.⁴⁸ This protection of open space combined with higher-density in appropriate areas contributes to an overall development pattern that promotes water efficiency and resource protection.

Cranford, New Jersey⁴⁹

Cranford's sustainable building standards ordinance applies green building measures to encourage the conservation of water and other resources. To accomplish this and other goals, the ordinance adopts the use of LEED for municipally-funded facilities—whether they are existing buildings, new buildings, or major renovations, and it encourages potential developers seeking redeveloper status through a redevelopment agreement to also use the LEED rating systems. To encourage formal LEED certification, the ordinance:

- Establishes a Green Building Density Incentive Program that allows redevelopers to request the density incentive if the project is located in a statutorily-created redevelopment area and anticipates LEED Certification at any level (Certified, Silver, Gold, or Platinum). The scale of the incentive varies based upon the project and the level of LEED certification sought.
- Requires that this program be incorporated in the Redevelopment Agreement, and that the redeveloper include a LEED Accredited Professional (LEED AP) on the project team.

As stated in the previous example, water conservation elements in the LEED rating system include the use of water-efficient landscaping, installation of innovative wastewater technologies, and employing strategies that reduce water use by a minimum of 20%.

⁴⁸ See CITY OF SUFFOLK, VA, UNIFIED DEV. ORDINANCE §31-409.

⁴⁹ TOWNSHIP OF CRANFORD, NJ, CODE § 106 (2005), <https://www.ecode360.com/11248541>

6. Use Planned Unit Development Regulations to Foster Water Conservation

Planned Unit Developments (PUDs) offer great flexibility for local governments to negotiate the details of needed development with developers. As a general matter, they allow the local legislative body to rezone large parcels of land for various uses including all of those that are described in the introduction to this Module as water conserving: mixed-use, multi-family, attached homes, small lot single-family, or any combination of those uses. In many states, including Colorado,⁵⁰ PUDs are permitted under state statutes, which prescribe what PUDs are and how they may be created. In some states, however, PUDs are not explicitly permitted by state statute, but may be permitted by the general delegation of zoning authority.

PUDs can advance a number of important smart growth and sustainability objectives by allowing degrees of flexible and creative planning and site design strategies. Encouragement of land use efficiency and high-density development and the creation of a PUD district, may further advance water conservation and smart land use patterns and strategies.

EXAMPLE OF WATER-EFFICIENT DEVELOPMENT PATTERNS IN PUD ZONING

Castle Rock, Colorado

Castle Rock's Planned Development District⁵¹ establishes architectural, landscaping, design, building, uses, and site development regulations that encourage compatible land uses, and ensure higher quality development. These architectural, landscaping, design, building, use, and site development criteria encourage quality development through the use of a variety of design and site techniques while continuing to provide for a wide range of economic development. The ordinance specifically states the goal to preserve, to the greatest extent possible, the existing landscape features and amenities and to use features already provided in a harmonious fashion. The land use patterns that accompany the Planned Development can reduce water demand and be used as a tool to achieve water conservation goals.

Among the listed purposes of the District are the following, which could be relied upon to encourage water-efficient, mixed-use development in priority growth areas:

- To permit diversification and innovation in community development while maintaining public safety, convenience, health, and general welfare;
- To preserve to the greatest extent possible the existing landscape features and amenities and to utilize such features in a harmonious fashion;

⁵⁰ COLO. REV. STAT. §§ 29-20-301 *et seq.*

⁵¹ TOWN OF CASTLE ROCK, CO, MUNICIPAL CODE, § 17-32, PD PLANNED DEVELOPMENT DISTRICT, (2012), https://www.municode.com/library/co/castle_rock/codes/municipal_code?nodeId=TIT17ZO_CH17.32PDPLDEDI.

- To promote the efficient use of land to facilitate a more economic arrangement of buildings, circulation systems, and utilities;
- To promote flexibility in design and permit planned diversification in the location and use of structures; and
- To provide for necessary commercial, recreational, employment, and educational facilities conveniently located to housing.

The PUD Act in Colorado is extremely broad and somewhat prescriptive. It enables local governments to negotiate almost every aspect of the proposed development in return for PUD approval. The developer often needs to prepare a more detailed application and development guide than would be required under standard zoning. The development guide often lists specific controls, such as uses, density, setbacks, and dedications for the PUD project, as well as the means for control and enforcement of those provisions.

The Colorado legislation allows a local government to establish PUDs by passing a resolution or ordinance that sets forth the standards, procedures, and conditions for a PUD in that jurisdiction. The prerequisites for the actual creation of a PUD are that it:

- (1) is compatible with the existing zones from which it was carved;
- (2) is in general conformity with the comprehensive plan for the community; and
- (3) complies with and satisfies all of the standards, procedures, and conditions of the local government's PUD ordinance.⁵²

Additional requirements for local laws permitting PUDs are:

- the written consent of the landowner whose properties are included within the PUD;
- designation of the uses permitted in a PUD and the minimum number of units or acres that may constitute a PUD;
- standards governing the density or intensity of land use, or method for determining such density or intensity in a PUD; and
- sufficient information submitted with the PUD application to ensure full evaluation of the application, provided that the reviewing board may require additional relevant information that it deems necessary.⁵³

The local law may also include standards for:

- the sequence of development among the various types of uses, and
- the inclusion of common open space.⁵⁴

⁵² Applebaugh v. San Miguel County Comm'rs, 837 P.2d 304 (Colo. App. 1992); Coleman v. Gormley, 748 P.2d 361 (Colo. App. 1987); Moore v. City of Boulder, 29 Colo. App. 248, 484 P.2d 134 (1971).

⁵³ COLO. REV. STAT. §§ 24-67-105(1), (2), (4), (5).

⁵⁴ COLO. REV. STAT. §§ 24-67-105(3), (6).

Each municipality or county allowing PUDs must have a procedure for the submission and review of a PUD application. The PUD Act allows local governments considerable flexibility in designing their application and approval system.

Similarly, local governments can integrate a wide variety of conservation measures into PUDs. As part of the approval process, they can negotiate a development guide, which can specify interior and exterior water conservation standards. PUDs can allow or require water conservation through features and design elements not required by existing zoning such as:

- individual rainwater harvesting systems,⁵⁵
- enhanced open space,
- large-scale green infrastructure,
- xeriscape features, and
- graywater systems.

In addition to these traditional land use requirements, the local government could coordinate with its water provider(s) to facilitate further conservation. A PUD regulation or negotiated agreement could require additional conservation elements such as a particular kind of tap fee or water budget rate structure, but only if the utility has them in place first. Making a link to the water provider's finance tools could be a valuable step in fleshing out a community's PUD requirements to further water conservation.

PUDs also give the local government an opportunity to align development potential with available water supply (as they might in subdivision standards as well). Some states, including Colorado, even mandate that local governments require a demonstration of adequate water supply for developments of a certain size. Colorado's 2008 legislation to this effect—which mandates that local governments require a demonstration of adequate water supply for developments that include new water use in an amount more than that used by 50 single-family equivalent units or fewer—applies to PUDs as well as other forms of development.⁵⁶

EXAMPLES OF ALIGNING PUDS WITH AVAILABLE WATER SUPPLY

Parker, Arizona⁵⁷

Parker's code requires that the final development plan for Planned Area Development includes a certificate of assured 100-year water supply.

Eloy, Arizona

Eloy, Arizona has a Planned Unit Development (PUD) Overlay Zone,⁵⁸ as well as both a

⁵⁵ COLO. REV. STAT. § 37-96.5-103 (making use of rain barrels legal in Colorado).

⁵⁶ COLO. REV. STAT. §§ 29-20-301 *et seq.*

⁵⁷ TOWN OF PARKER, AZ, TOWN CODE § 10-10A-4(B) (6) PLANNED AREA DEVELOPMENT (PAD) SUBMITTAL REQUIREMENTS (2005), http://sterlingcodifiers.com/codebook/index.php?book_id=810§ion_id=516547

Master Planned Development (MPD) Overlay Zone⁵⁹ and a Planned Area Development (PAD) Overlay Zone,⁶⁰ which effectively act like PUDs.

Eloy's PUD Overlay Zone requires developers to have 160 acres to be eligible for application. The PUD ordinance requires enhanced open space. In addition, among the requirements for the developer's application are a water report and a water layout plan.

The purpose of the MPD zone is to foster the design and community development of large or complex areas, where the platting is conducted in phased stages. First, the backbone infrastructure is designed, platted, and constructed. The individual parcel planning and development is conducted at a later date. The Master Planned Development is only available for areas over 320 acres. The Master Planned Development also requires that a minimum of 25% of the net acreage be preserved as open space. The code lists the required elements for the Master Planned Development application, including: among other things, a Master Water Plan, Master Wastewater and Sewer Plan, a Master Drainage Plan, and Master Open Space and Landscape Plan. The Master Water Plan must be preceded by a preliminary water report; both the report and final Plan must discuss the availability of water, required waterline extensions, and the layout for the water delivery and distribution infrastructure.

The purpose of the PAD zone is to provide for the development of land while permitting flexibility in the design and development of residential, commercial, and industrial buildings that could not be achieved by the traditional lot-by-lot development. The minimum size for these developments is 40 acres. Application of the PAD zone requires Preliminary Water and Drainage Reports, followed by Master Plans in the Final Development Planned Phase, which must describe the availability of water, the major water line extensions needed to service the property, and layouts for backbone delivery and distribution water throughout the development.

Westminster, Colorado⁶¹

The City of Westminster takes a different approach to a showing of adequate water supply. Westminster does not allow developers to bring their own water to the table because of the potential effect on the water market. The City's concern is that a developer working on a single project might be willing to pay much more than what the City would have paid because the developer is making that decision on a smaller scale. (In other words, the City's perceived value of the yield of various water rights establishes what it is willing to bid for new water rights, which might be different from a developer's perceived value for a specific

⁵⁸ CITY OF ELOY, AZ, CITY CODE § 15-5- PLANNED UNIT DEVELOPMENT OVERLAY ZONE, (2004), http://www.sterlingcodifiers.com/codebook/getBookData.php?section_id=453936&keywords=water%20conservation

⁵⁹ CITY OF ELOY, AZ, CITY CODE §§ 21-111, 112, 113, 114, MASTER PLANNED DEVELOPMENT (MPD) (2004), http://sterlingcodifiers.com/codebook/index.php?book_id=674&chapter_id=63719#s608409

⁶⁰ CITY OF ELOY, AZ, CITY CODE §§ 21-120, 121, 122, 123, PLANNED AREA DEVELOPMENT (PAD) (2004), http://sterlingcodifiers.com/codebook/index.php?book_id=674&chapter_id=63720#s608414

⁶¹ City of Westminster, CO, Representatives, Land Use Leadership Alliance Training Program (LULA), Denver, CO (April 30, 2015).

project and its associated rights). The result being that the City would then have to compete for water in that elevated marketplace. Instead, Westminster focuses heavily on acquiring water rights itself *before* development pressures arise in a given area, in order to prevent the sudden spike in land values that could occur. With Colorado's requirement that local governments make developers demonstrate an adequate water supply, most communities do not purchase their own water; they leave it to the developer to secure and document water availability. The communities may locate the water and assist in making the deal, but the developer then purchases it directly from the source. Westminster's alternate approach of buying its own water allows the City to take the lead on making economic decisions about how to plan for and pay for the City's needed additional water, a factor that also influences development decisions. Much of the City's water supply is based on surface water, which means they have to plan more carefully (than communities relying on groundwater) for severe droughts. The City regularly updates its Comprehensive Water Supply Plan,⁶² which evaluates the current water supply projection and projected water demands based on the City's detailed Comprehensive Plan in order to quantify any expected deficits or surpluses.⁶³ Because the majority of the City's land area is zoned as Planned Unit Development⁶⁴—which requires submittal of a development plan into which agreed upon design standards are incorporated⁶⁵—the City has the opportunity to negotiate all standards for each proposed project in the same way that another community might through a development agreement. Likewise, because the City owns its own water and has done such a good job of tying together land use and water supply projections, they can negotiate and mandate from a much stronger position, thus requiring more conservation elements.

This process influences development decisions as well because Westminster ties its growth management program to water.⁶⁶ Annually, the City allocates a certain number of service

⁶² Because water use is so affected by weather, the City tries not to react to changes in a specific year but rather turns to five- or six-year Citywide use reviews when updating its Comprehensive Water Supply Plan. Email Interview with Stu Feinglas, Senior Water Resource Analyst, City of Westminster (Jan. 24, 2017).

⁶³ CITY OF WESTMINSTER, CO, COMPREHENSIVE PLAN 172 (2015), http://www.ci.westminster.co.us/Portals/0/Repository/Documents/CityGovernment/Community%20Development/COMPLETE%20Comp%20Plan_2015%20Update_WEB.pdf.

⁶⁴ CITY OF WESTMINSTER, CO, CITY ZONING MAP (2010), <http://www.ci.westminster.co.us/Portals/0/Repository/Documents/CityGovernment/zoningmap.pdf>.

⁶⁵ CITY OF WESTMINSTER, CO, CITY CODE, § 11-5-4 PRELIMINARY DEVELOPMENT PLAN (PDP) REQUIREMENTS (2015), <http://www.ci.westminster.co.us/CITYGOVERNMENT/CITYCODE/TITLEXI/5PROCEDURESANDREQUIREMENTS>.

⁶⁶ "The City Council further finds that, although the City has implemented water conservation techniques and programs within the City, has entered into a water reuse program, has taken other steps to maximize the efficient use of the resources available to the City, because of the elements set forth in [the Findings] above, it is essential for the preservation of the health, safety, and welfare of the citizens of Westminster that the City maintain and modify, from time to time, a growth management program which balances growth and the ability of the City to effectively and safely absorb and serve such growth." CITY OF WESTMINSTER, CO, CITY CODE, § 11-3-1 GROWTH MANAGEMENT PROGRAM, FINDINGS (2010), <http://www.ci.westminster.co.us/CityGovernment/CityCode/TitleXI/3GrowthManagementProgram>.

commitments (water taps), based upon available water supply, into competitive and non-competitive categories; the competitive categories are all residential.⁶⁷ The City uses a point system, the scoring criteria for which is adopted periodically through City Council resolution, which sets forth what weight to give to various standards and criteria based on their impact on the City's utility system and the health, safety, and welfare of the Community. The Council may establish a minimum number of points to be obtained in the award criteria.⁶⁸ The points themselves are found in the City's design guidelines, which include water efficiency requirements.⁶⁹ The system is set up so that each proposal is essentially competing against each other. Proposals receive points in the competition for doing something above and beyond code requirements. Those with the most points are awarded the service commitments. Developers must submit a Preliminary Development Plan and Official Development Plan (ODP), bringing the project into compliance with City Design Guidelines. All commitments made by an applicant as a condition of the Service Commitment award must be reflected in these plans.⁷⁰ If the project cannot meet the minimum and incentive design requirements and other requirements included within its ODP, it will be subject to Planning Commission review and approval or denial.⁷¹

The PUD tool is very flexible. Localities can choose any types of land uses to include in their PUDs. While one community might establish multiple types of specific PUDs, each designated for a different type of land use (residential, commercial, industrial, mixed-use development, etc.), another community might establish one single type of PUD and define it broadly to mean a tract of land to be developed under a single development plan for any combination of land uses.

EXAMPLE OF LAND USE-SPECIFIC PUDS

⁶⁷ Service Commitment awards do not guarantee approval of a project. Service Commitments that are allocated but are not awarded to new development during the year are returned to the water supply figures for use in future years. CITY OF WESTMINSTER, CO, COMPREHENSIVE PLAN 195 (2015), http://www.ci.westminster.co.us/Portals/0/Repository/Documents/CityGovernment/Community%20Development/COMPLETE%20Comp%20Plan_2015%20Update_WEB.pdf.

⁶⁸ CITY OF WESTMINSTER, CO, CITY CODE, § 11-3-5 GROWTH MANAGEMENT PROGRAM (2010), <http://www.ci.westminster.co.us/CityGovernment/CityCode/TitleXI/3GrowthManagementProgram>.

⁶⁹ *Regulations and Design Guidelines*, CITY OF WESTMINSTER, CO, PLANNING DIVISION, <http://www.ci.westminster.co.us/CityGovernment/CommunityDevelopment/PlanningDivision/RegulationsandDesignGuidelines>. Because the State of Colorado recently (as of the writing of this Module) began requiring water-sense fixtures, the water-based points in Westminster's system are not as robust as they once were. The City plans to update the criteria in the near future to once again award points for going beyond code requirements. Telephone Interview with Mac Cummins, Planning Manager, and Stu Feinglas, Senior Water Resource Analyst, City of Westminster (Sept. 1, 2016).

⁷⁰ CITY OF WESTMINSTER, CO, CITY CODE, § 11-3 GROWTH MANAGEMENT PROGRAM (2010), <http://www.ci.westminster.co.us/CityGovernment/CityCode/TitleXI/3GrowthManagementProgram>.

⁷¹ CITY OF WESTMINSTER, CO, CITY CODE, § 11-3-2 GROWTH MANAGEMENT PROGRAM (2010), <http://www.ci.westminster.co.us/CityGovernment/CityCode/TitleXI/3GrowthManagementProgram>.

Arvada, Colorado

The City of Arvada's zoning contains PUD zoning for just residences (PUD-R), for business and professional development (PUD-BP), for fully mixed-use development (PUD-BPR), and for industrial development (PUD-I).⁷² The PUDs encourage innovative land use planning and design concepts that achieve environmental sensitivity, energy efficiency, aesthetics, and high quality development by: allowing for open space, allowing freedom to provide a mix of land uses in the same development, promoting quality urban design and environmentally sensitive development, and increasing base densities of floor area ratios (FAR) when increases can be justified by superior design or additional amenities such as public open space.

Once an application for a Planned Unit Development has been completed and submitted, it will usually be reviewed by the local government's planning department staff, who will make a recommendation to the planning commission. The planning commission will hold a public hearing to review the application and its conformance with the local PUD regulations, and will recommend approval or denial of the PUD to the governing body. The governing body will then consider the PUD rezoning application at a public hearing. The hearing must be expeditious and will conclude when all those desiring to testify have done so. No public hearing may continue for more than 40 days without the applicant's written consent.⁷³

In addition to laying out additional standards within PUD regulations, communities may require additional procedural steps for approval within PUD zones. For example, a community could require or recommend a pre-application meeting between planning staff and the applicant. Local governments can use this pre-application meeting to ensure that the list of topics to be covered includes a discussion of water supply. Further, they could include the water provider in this conversation. Communities may also require or offer post-occupancy inspections to ensure water conservation measures, such as xeriscaping, have been maintained as planned.

EXAMPLES OF PUD PROCEDURES INCORPORATING WATER

Broomfield, Colorado⁷⁴

Broomfield, Colorado, is its own water Provider. The City's Planning Division offers and highly-recommends a pre-concept plan review meeting with planning staff for any Planned

⁷² ARVADA, CO, LAND DEVELOPMENT CODE § 4.1.7, PLANNED UNIT DEVELOPMENT DISTRICTS, https://static.arvada.org/docs/Article_4_-_Zoning_Districts-1-201303191130.pdf

⁷³ COLO. REV. STAT. § 24-67-105.5(3).

⁷⁴ Broomfield Representatives, Land Use Leadership Alliance Training Program (LULA), Denver, CO (April 30, 2015); Email Interviews with Dave Shinneman, Community Development Director, City of Broomfield (Jan. 24, 2017) and David Allen, Director of Public Works, City of Broomfield (Jan. 25, 2017).

Unit Development plans and Site Review plans in a PUD zoning district and, as part of that meeting, includes the Water Division.⁷⁵ Almost all applicants take advantage of this meeting. The Water Division's main focus at those meetings is on the utility system infrastructure component, but water conservation is tied in through the City's landscaping standards, which require soil amendments and limit the amount of turf grass for residential developments.

Westminster, Colorado

Westminster's Comprehensive Plan is highly detailed and is adopted by ordinance, not by resolution, making compliance with the Plan a legal requirement.⁷⁶ A majority of the City's land area is zoned as Planned Unit Development, under which all proposed uses must conform to the Comprehensive Plan.⁷⁷ Under the Plan, development must conform to adopted design guidelines, many of which include water efficiency requirements, including water-conserving landscape specifications (such as turf limitations), permeable pavement, and water-conserving fixtures.⁷⁸ The City's detailed Plan, mandatory PUD, and incorporation of design guidelines, taken together, effectively act as detailed zoning requirements. Through the PUD process, the City has the opportunity to negotiate all standards for each proposed project in the same way that another community might through a development agreement. The agreed upon standards, which must comply with the Comprehensive Plan and design guidelines—both of which promote strong water efficiency—are written into the PUD, making them the legal requirements for that project. As part of the PUD requirements, all land uses and negotiated standards must be reflected in the project's Preliminary Development Plan and Official Development Plan (ODP).⁷⁹ The plans will include requirements relative to landscape compliance, in terms of the water usage standards (referring back to the municipal code and landscape code) and planting requirements, including hydro-zone analysis and plant types (which correspond back to the City's planting palate.⁸⁰ After staff review, the preliminary plan goes to Council for approval. The final ODP may receive administrative approval (which typically occurs except in the case of very large projects).

⁷⁵ CITY OF BROOMFIELD, CO, PLANNING DIVISION, CONCEPT PLAN CHECKLIST (FOR PLANNED UNIT DEVELOPMENT PLANS & SITE DEVELOPMENT PLANS IN A PUD ZONE DISTRICT), (2012), <http://www.ci.broomfield.co.us/DocumentCenter/View/1568>.

⁷⁶ City of Westminster, CO, Ordinance No. 2475 (1997). *See also*, CITY OF WESTMINSTER, CO, COMPREHENSIVE PLAN 94, http://www.ci.westminster.co.us/Portals/0/Repository/Documents/CityGovernment/Community%20Development/COMPLETE%20Comp%20Plan_2015%20Update_WEB.pdf9-4.

⁷⁷ CITY OF WESTMINSTER, CO, CITY ZONING MAP (2010), <http://www.ci.westminster.co.us/Portals/0/Repository/Documents/CityGovernment/zoningmap.pdf>.

⁷⁸ *Regulations and Design Guidelines*, CITY OF WESTMINSTER, CO, PLANNING DIVISION, <http://www.ci.westminster.co.us/CityGovernment/CommunityDevelopment/PlanningDivision/RegulationsandDesignGuidelines>. Because the State of Colorado recently (as of the writing of this Module) began requiring water-sense fixtures, the water-based points in Westminster's system are not as robust as they once were. The City plans to update the criteria in the near future to once again award points for going beyond code requirements. Telephone Interview with Mac Cummins, Planning Manager, and Stu Feinglas, Senior Water Resource Analyst, City of Westminster (Sept. 1, 2016).

⁷⁹ CITY OF WESTMINSTER, CO, CITY CODE, § 11-4-7, ZONING, PLANNED UNIT DEVELOPMENT, Westminster, CO, <http://www.ci.westminster.co.us/CityGovernment/CityCode/TitleXI/4Zoning#7>.

⁸⁰ Email Interview with Mac Cummins, Planning Manager, City of Westminster (Jan. 24, 2017).

The City's detailed comprehensive plan and mandatory PUD approach allows for more flexibility and fewer major approval steps. For example, if a developer decided mid-project to change from one type of commercial district to another (such as C-1 to C-2), in other communities, the developer would have to apply for a rezoning, while, in Westminster, the developer would simply amend the ODP. The City does have cautionary measures in place, however, for major changes between plans. For example, if a developer were to add any use that does not currently exist in the approved PUD, the City must hold a public hearing to add that use. Similarly, under the code, once an ODP amendment is requested, the City reevaluates the landscape water requirements and charges tap fees if the new use is higher.⁸¹ In these ways, Westminster's approach differs from traditional zoning. It also differs from the more flexible zoning technique of floating zoning in that, with floating zones, once a project meets the requirements set out in the ordinance and the legislature acts to make the zone land on the property, the zone's standards apply without further bargaining, while, with Westminster's approach, the City has much more room for negotiation.

The City of Westminster also has a robust inspection process as part of its PUD zoning. In addition to pre-occupancy inspections (which include a check to ensure the correct installation of water-efficient landscaping), Westminster also has a post-occupancy inspection program under which the City periodically inspects landscapes to be sure what was listed in the ODP and originally installed still exists. The City has an ODP Inspector who manages this process. Commonly, this results in missing trees or other landscape areas needing replacement. The inspections do not occur on a regular, planned schedule. Rather, they are based upon observed violations or warranty inspections. Because continued compliance with the ODP is legally required by virtue of it being part of the zoning, alterations to water-efficient landscaping are treated as code violations, as are any other violations of the ODP—the same way that another community might enforce a zoning violation where a single-family home was converted to a two-family home. The City can enforce these violations in the same way as any other code violation (as a misdemeanor, punishable by \$2,000/day and/or 1 year in jail), though these punishments are rarely levied as the City's main concern is remedying the violation.

Westminster offers other post-occupancy inspections, which include inspections of the water system. The City's reclaimed irrigation customers (which currently include about 110 large properties) also receive an annual inspection that includes water use.⁸² Similarly, the City tries to interest high-water-use irrigation customers in walk-through inspections. The cost associated with such high use is usually motivation enough for customers to limit their use, especially in commercial and HOA customers. Often, Homeowners' Associations will have little idea how to run their common area maintenance. The City attempts periodically to address this issue by working with the HOAs to encourage repairs and maintenance.⁸³ The City also tracks water use and sends out leak notices when accounts do

⁸¹ Email Interview with Stu Feinglas, Senior Water Resource Analyst, City of Westminster (Jan. 24, 2017).

⁸² Email Interview with Stu Feinglas, Senior Water Resource Analyst, City of Westminster (Jan. 24, 2017).

⁸³ Email Interview with Mac Cummins, Planning Manager, City of Westminster (Jan. 24, 2017).

not show any period of zero use within a day. Overall, the City has seen a tremendous reduction in its water use thanks to these and other initiatives.

Despite the flexibility and benefits of PUDs, it should be noted that some planners and attorneys criticize PUDs and the negotiations that surround their adoption and implementation as overly complex, requiring high administrative costs and lengthy processes, adding that they are hard to modify in the future.

7. Create a Water Conservation Floating Zone

The floating zone—typically used to incentivize a particular type of development—is a flexible zoning technique that departs from traditional as-of-right zoning and offers flexibility to developers and communities in the application of its standards. Floating zones are often confused with overlay zones (discussed in Section 8, below), which bear similarity, but function differently. In creating a floating zone, a zone classification is authorized for future use, but not placed on the zoning map. Rather, developers of parcels deemed eligible (based upon minimum standards included in the zoning, such as lot size and location) are permitted to make an application to have the zone applied in a particular location. Floating zones contain standards that supplant the underlying zoning; they can constitute a wholesale replacement of the underlying zone or they can leave in place provisions of the underlying zone where it is consistent with the objectives of the floating zone. A locality can apply the floating zone to a particular area upon the petition of a developer, at the local legislature’s initiative, or upon the recommendation of the planning board or commission. Upon approval, the parcel is rezoned to reflect the new use and becomes a small zoning district. The zoning map is amended to apply the floating district to that parcel of land (i.e., the floating zone “lands” on that parcel), and the parcel’s development is governed by the use, dimensional, and other provisions of the floating zone.

Flexible zoning districts, such as floating zones, must be authorized under state law, either under specific language in the zoning enabling act or under state court interpretations holding that these flexible zoning districts are legal. Initially, these techniques met resistance, as challengers argued in court that these zoning districts constitute spot zoning or violate the uniformity requirement in the original zoning enabling act. The courts in many states have declared that floating zoning is legal under the planning and zoning enabling acts, home rule statutes, local charters, or other land use laws adopted by the state legislature. Court decisions often are based on the conclusion that such zoning encourages the most appropriate use of the land and advances the general welfare. These are concepts that were embodied in the original zoning enabling act, which was used by most states when they first delegated authority to local governments to adopt zoning and other land use regulations. The enabling act contains a provision that authorizes district regulations to encourage the most appropriate use of the land. In states where the enabling acts are

liberally construed, courts uphold these flexible zoning district options, particularly where they are adopted to achieve the objectives of the comprehensive plan or pursuant to a formally adopted special area plan. The State of Colorado is among those that have definitively authorized floating zoning.⁸⁴

Among other uses, floating zones can be used to permit any combination of water-conserving zoning techniques appropriate for the community. Further, the floating zone could be made available only in certain areas, such as priority growth or in-fill districts. They can also be drafted to include development incentives to encourage property owner to apply for the floating zone, or to offset the additional burdens imposed by the floating zone if it is applied through the initiative of the local planning commission or governing body.

EXAMPLES OF WATER CONSERVATION REQUIREMENTS IN FLOATING ZONES

*Sample*⁸⁵

This sample purpose clause, created as an illustration for this Module, demonstrates how a “water-conservation floating zone” (for example) can accomplish a variety of objectives, including reducing water use and protecting water quality.

- *The Water-Conservation Floating Zone (WCFZ) district is created to secure the benefits of water-conscious development, which include reduction in potable water usage; preservation of existing natural resources including habitat, water bodies, wetlands, agricultural lands, steep slopes, and floodplains; and increased local food production; reductions in impervious surfaces, stormwater runoff, and the heat island effect; recycling of waste water; the adaptive reuse of existing buildings and infill development; and the use of existing infrastructure. These needed benefits are consistent with the [City/Town/Village] of []’s commitment to enhancing public health, safety, and welfare, and they constitute the comprehensive planning rationale for the adoption of the WCFZ district.*⁸⁶

In addition to permitting water-conserving building types and densities, standards in a floating zone focused on water conservation could require eligible developers to take discrete steps to reduce water use and promote water quality. Here are two illustrative provisions, modeled from those contained in the LEED for Neighborhood Development rating system:

- *Development proposals for the application to an individual parcel in a WCFZ must adopt water-efficient landscaping to reduce the use of potable water. They must demonstrate how they reduce water consumption for outdoor landscape irrigation by*

⁸⁴ *Carron v. Bd. of County Comm’rs*, 976 P.2d 359 (Colo. App. 1998); *Dillon Companies, Inc. v. City of Boulder*, 183 Colo. App. 117 (1973).

⁸⁵ Where strong examples of important techniques could not be found, this Module offers sample language for consideration.

⁸⁶ See Neighborhood Development Floating Zone: A Model Ordinance to Foster Green Community Development Using the LEED for Neighborhood Development Rating System, 6 (2013), <http://www.usgbc.org/resources/neighborhood-development-floating-zone>

50% from a calculated midsummer baseline case (i.e., what the project would use if landscaped with conventional equipment and design practices typical to the region) by using water-efficient strategies. These strategies include water-efficient plant species, plant density, and irrigation efficiency. Additional practices include establishing planned water-use zones; shadow profiles of landscape areas; and a landscaping site map that shows, among other things, topography and sun and wind exposure. Developers must use climate-tolerant native or adaptive plants, mulch, and water-efficient irrigation technology. Stormwater collection systems (such as cisterns and underground tanks) should also be considered to significantly reduce or eliminate potable water use for irrigation.⁸⁷

- Applicants must create and implement an erosion and sedimentation control (ESC) plan for construction activities. The ESC must incorporate practices to control erosion and sedimentation in runoff from the entire construction site, including phasing, seeding, grading, mulching, filter socks, stabilized site entrances, and preservation of existing vegetation. The ESCs must describe how the WCFZ project will preserve vegetation and mark clearing limits, establish and delineate construction access, control flow rates, install sediment controls, stabilize soils, protect slopes, protect drain inlets, stabilize channels and outlets, control pollutants, control dewatering, and maintain such practices.⁸⁸

Portland, Oregon⁸⁹

Portland's EcoDistrict Initiative, though not a floating zone, illustrates requirements that can be incorporated into a floating zone to promote water conservation and quality. It provides a Performance Areas Toolkit that includes vision, goals, targets, metrics, and potential strategies for seven performance areas in an EcoDistrict and provides direction, methods, and process for assessing performance. These could be incorporated into the standards for a community's water-conservation floating zone. EcoDistrict targets and potential strategies related to the goal of reducing the rate of water consumption include:

- Reduction in the average per capita potable water demand by a certain percentage (determined by specific district plan) below current levels;
- Achievement of water balance to meet healthy hydrologic conditions: managing a certain percentage of stormwater and building water discharge onsite to satisfy water demand and improve watershed health (percentage determined by specific district plan);
- Water reuse or reclaimed water systems;
- Recycled water sources to satisfy non-potable water demand;
- Water-efficient landscaping and vegetated infrastructure;
- On-site wastewater treatment; and
- Metering and sub metering.

⁸⁷ See Technical Guidance Manual for Sustainable Neighborhoods, Section 3.13 Water-Efficient Landscaping, 74 (2012), <http://www.usgbc.org/resources/technical-guidance-manual-sustainable-neighborhoods>.

⁸⁸ E&S Plan-GIB, LEED ND Built Project (2009), <http://www.usgbc.org/credits/reqssp1r2-0>

⁸⁹ See EcoDistricts Performance Areas Toolkit: Understanding District Impacts, Portland Sustainability Institute, ecodistricts.org/wp.../4_Toolkit_EcoDistrict_Assessment_v_1.12.pdf

In addition to incorporating water-specific provisions within a floating zone, communities may use floating zones to foster, more generally, the type of compact land use patterns (discussed in Modules 1 and 2) that increase water-efficiency.

EXAMPLE OF FLOATING ZONES FOR WATER-EFFICIENT LAND USE PATTERNS

Lawrence, Kansas

The City of Lawrence adopted a form-based Mixed-Use district and Smartcode, which operate as floating zones citywide. Adopted in 2006, the floating Mixed-Use district allows compatible mixed-uses in areas; within one-quarter mile of a designated transit route near or adjacent to the intersection of arterial streets, within one-quarter mile of university campuses, within one-quarter mile of the downtown area, immediately adjacent to a public park, open space, or an existing nonresidential development proposed for redevelopment.⁹⁰ The Mixed-Use district also includes development bonuses for providing public benefits. Promoting green infrastructure, as well as sustainability standards and practices are among the goals that the development bonuses incentivize.⁹¹

The Smartcode was adopted in 2009 as an alternative to the City's development code, in an effort to facilitate Traditional Neighborhood Development (TND).⁹² TND promotes pedestrian-oriented, compact neighborhoods that encourage walkability, resulting in reduced automobile use, related emissions, and general environmental impacts. The Smartcode also emphasizes the importance of distributing affordable housing and the use of green corridors to encourage greater neighborhood connectivity and opportunity.⁹³ A similar development bonus program to that of the Mixed-Use district is also applicable to the Smartcode.⁹⁴

Although water conservation is not explicitly stated as a purpose in these floating zones, the examples are transferrable: "public benefits" provided by a developer could include water conservation, "sustainability standards and practices" could include water conservation requirements, green infrastructure increases percolation and groundwater recharge, and the type of compact development in appropriate areas called for in TND zoning increases water system efficiency.

⁹⁰ CITY OF LAWRENCE, KS, LAND DEVELOPMENT CODE, 11.17 (2013),
<https://lawrenceks.org/assets/pds/planning/documents/DevCode.pdf>.

⁹¹ CITY OF LAWRENCE, KS, LAND DEVELOPMENT CODE, 11.26 (2013).

⁹² CITY OF LAWRENCE, KS, SMARTCODE, SC5 (2009),
<https://www.lawrenceks.org/assets/pds/planning/documents/SmartCode.pdf>.

⁹³ CITY OF LAWRENCE, KS, SMARTCODE, SC5 (2009),
<https://www.lawrenceks.org/assets/pds/planning/documents/SmartCode.pdf>.

⁹⁴ CITY OF LAWRENCE, KS, SMARTCODE, SC16-SC17 (2009),
<https://www.lawrenceks.org/assets/pds/planning/documents/SmartCode.pdf>

Using a floating zone mechanism to permit water-conserving building types has several advantages⁹⁵:

- First, it allows the community to memorialize types of buildings and patterns of development that meet local needs in a single zoning district by incorporating them as zoning standards, which can be affixed to appropriate parcels.
- Second, because the floating zone contains eligibility requirements, the rezoning process requires less legislative deliberation than a typical rezoning and thus saves time. Without such a mechanism at the ready, many developers are forced to apply for more lengthy rezonings or variances in order to obtain full entitlements for in-fill or priority growth district projects. Similarly, there is time saved in avoiding lengthy negotiations because the floating zone already contains water-conserving standards. By reducing the length of the approval process, costs to the developer are dramatically reduced (thereby further incentivizing water-conserving development) and communities avoid creating dangerous precedent for future variances or rezonings.
- Third, if the floating zone allows developers greater densities than the underlying zoning in eligible districts, it prevents land price inflation that comes with as-of-right rezoning of such parcels. The developer can enter into a contingent sales contract with the landowner, with the parcel price set at market value under the current zoning, and develop at the higher density allowed if and when the floating zone is applied to the property. The developer can then put that cost savings into meeting the zone's water-conserving requirements.

8. Use Overlay Zoning to Designate Areas for Conservation & Growth

Overlay zoning is a flexible zoning technique that allows a local government either to encourage or to discourage development in certain areas. An overlay zone is a mapped district superimposed on one or more established zoning districts. A parcel within the overlay zone will thus be simultaneously subject to two sets of zoning regulations: the underlying and the overlay zoning requirements. If the overlay zone provisions conflict with the underlying zoning, some communities provide that the more restrictive zoning applies, while others provide that the overlay district applies regardless of whether it is stricter or more permissive.

The overlay district is most often thought of, and is sometimes defined as, a technique for conserving a fragile natural resource area such as a wetland, watershed, or tidal basin. Notwithstanding, overlay districts can also be used for identifying areas for development and providing incentives or additional standards to encourage growth there. A community may use either of these two forms of overlay zoning to foster water conservation. For example, a locality may adopt a conservation overlay district in one or more areas where

⁹⁵ See Neighborhood Development Floating Zone: A Model Ordinance to Foster Green Community Development Using the LEED for Neighborhood Development Rating System, 5 (2013), <http://www.usgbc.org/resources/neighborhood-development-floating-zone>

water-intensive development should be discouraged. Likewise, a locality may adopt a development area overlay district in a transit station neighborhood to provide for greater density in appropriate locations and more cost-effective and water-efficient development patterns.

EXAMPLES OF OVERLAY ZONES FOR GROWTH THAT INCORPORATE ENVIRONMENTAL CONCERNS

The following examples illustrate how overlay zoning can be used in an area targeted for growth to ensure the environmental quality of an area experiencing denser development.

Cincinnati, Ohio

Several decades ago, the Cincinnati City Council adopted an Environmental Quality District overlay zone with special standards designed to prevent businesses from locating in designated urban neighborhoods where the characteristics of the environment are of significant public value and are vulnerable to damage by development permitted under conventional zoning. Though this zone no longer exists in the City's code (though the City now has several other overlays), it was upheld in court as accomplishing a valid public purpose of preserving the quality of this urban neighborhood.⁹⁶

Today, the City of Cincinnati's Urban Design Overlay District⁹⁷ is meant to protect and enhance the physical character of business districts by preventing the deterioration of property; encouraging private investment to improve and stimulate economic vitality; and ensuring that infill developments do not adversely impact the physical character of the area. This district requires applicants to submit an Urban Design Plan that includes (but is not limited to): a description of the physical and environmental improvements necessary for revitalization; the location of the new buildings; and open space and landscaping plans.

Eugene, Oregon⁹⁸

In 2005, Eugene, Oregon, adopted a variety of overlay zones including: a Planned United Development Overlay Zone, Waterside Protection Overlay Zone, Water Quality Overlay Zone, and a Water Resources Conservation Overlay Zone. The purpose of these water protection zones is to protect the water quality in designated waterways, riparian areas, and adjacent wetlands by maintaining an undeveloped setback area between features and

⁹⁶ Franchise Developers, Inc. v. City of Cincinnati, 505 N.E.2d 966 (1987). This court decision cites to Chapter 34 § 3400.2 of the Cincinnati Municipal Code, which, at the time the case was decided in 1987, allowed for "environmental quality districts (EQDs) to assist in the development of land and structures to be compatible with the environment and to protect the quality of the urban environment in those locations where the characteristics of the environment are of significant public value and are vulnerable to damage by development permitted under conventional zoning building regulations."

⁹⁷ City of CINCINNATI, OH, ZONING CODE, § 1437.01, URBAN DESIGN OVERLAY DISTRICT (2004), https://www.municode.com/library/oh/cincinnati/codes/code_of_ordinances?nodeId=TIXI_ZOCOCI_CH1437URDEOVDI.

⁹⁸ City of EUGENE, OR, CODE § 9.1040 ESTABLISHMENT AND LIST OF OVERLY ZONES (2006), <https://www.eugene-or.gov/DocumentCenter/View/2704>.

adjacent developed areas.

A similar series of overlay zones could be created to protect water quantity.

The examples below demonstrate how overlay zoning can be used to protect land in conservation zones, hence limiting water-consuming types of development and preserving the quality of ground and surface water.

EXAMPLES OF OVERLAY ZONES FOR CONSERVATION

Brookfield, Wisconsin

The Upland Preservation Overlay district adopted by Brookfield, Wisconsin, is intended to preserve “all significant woodlands, wildlife habitat areas, areas of rough topography and related scenic areas.”⁹⁹ In addition to maintaining “the natural beauty of the city,” the overlay is intended to control erosion and sedimentation and maintain water quality. The ordinance contains a conservation deed restriction requirement for subdivision plats prohibiting the erection of structures, the removal of vegetation, and any filling or excavating of land within the overlay, which runs with the land in perpetuity.

Cincinnati, Ohio

Cincinnati’s Hillside Overlay Zone¹⁰⁰ is located specifically on the hills right outside of the City. The purpose of this zone is to establish standards of development and procedures for review for new developments to show that the development will not only be compatible with the natural environment, but will also respect the quality of the urban environment of the locations where hillsides are of significant public value. This zone is intended to prevent damage to the hillsides where there are sensitive environmental issues. Applications that are subject to review include: new buildings larger than 600 square feet in area or 15 feet in height; permits for alterations, additions, and changes to the exterior of residential buildings that result in increase of dwelling units; and improvement costs that exceed \$5,000.

Like PUDs, discussed in Section 6 above (see Use Planned Unit Development Regulations to Foster Water Conservation), **overlay zoning also gives the local government an opportunity to align development potential with available water supply.** Municipalities and counties may include within their overlay district regulations requirements related to the quantity, quality, and dependability of a development’s water

⁹⁹ City of BROOKFIELD, WI, MUN. CODE §17.96, <http://www.codepublishing.com/WI/Brookfield/>.

¹⁰⁰ CITY OF CINCINNATI, OH, ZONING CODE, § 1433.01, HILLSIDE DISTRICT (2004), https://www.municode.com/library/oh/cincinnati/codes/code_of_ordinances?nodeId=TIXIZOCOCI_CH1433_HIOVDI.

supply. Where water is in short supply, or very expensive to provide, the community can adopt an overlay imposing stricter standards than it does elsewhere.

EXAMPLE OF ALIGNING OVERLAY ZONES WITH AVAILABLE WATER SUPPLY

***Douglas County, Colorado*¹⁰¹**

The Douglas County Code provides for a Water Supply Overlay District that encompasses the entire area of Douglas County and applies to specified applicants (such as those for a rezoning, planned development, or use by special review). The district aims to ensure that development in all areas of Douglas County provides for a water supply that is sufficient in terms of quantity, quality, and dependability. The district divides the County into water supply zones and it includes methods and provisions for:

- restricting the dependence on nonrenewable water sources;
- encumbering groundwater through the use of restrictive covenants;
- verifying water rights and adjudicating these rights;
- identifying minimum water demand standards;
- identifying minimum water supply standards;
- identifying the land-use process affected by these standards; and
- providing an appeal process to prove water supply sufficiency.

This overlay zone also provides for minimum water demand standards and also requires applicants to provide documentation for all applications proposing a water supply from an Existing District, either directly or through execution of an intergovernmental agreement with a New Special District.

In addition to laying out additional standards, Communities may require additional procedural steps for approval within overlay zones. For example, a community could require a conditional use or other special permit to develop within an overlay zone. To obtain this permit, communities could require developers to submit a report from an acknowledged water expert regarding the probable effects of a development on water quality and quantity.

EXAMPLE OF CONDITIONALLY-PERMITTING USES IN OVERLAY ZONES

Limington, Maine

Limington, Maine, includes an Endangered Species and Critical Areas Overlay in its zoning ordinance to protect plants, fish, and animals in areas identified by the state as habitat for

¹⁰¹ DOUGLAS COUNTY, CO., ZONING RESOLUTIONS, § 1801 *ET SEQ* WATER SUPPLY OVERLAY DISTRICT (2013), <http://www.douglas.co.us/documents/section-18a.pdf>

endangered species and for certain waterfowl, wading birds, and shorebirds, as spawning areas for Atlantic salmon, and as deer wintering areas.¹⁰² Except for non-intensive recreational uses, new structures and uses within the overlay require a conditional use permit. A report by a wildlife biologist on the probable effects of the proposed use on habitat and species may be required as part of the permit application.

Using an overlay zone to limit water-consuming development naturally involves imposing additional restrictions on the development of private land. Local governments should be warned that this can occasionally lead to a lawsuit claiming that the restrictions constitute a regulatory taking. Often, this is accompanied with the claim that the regulation prevents the land owner from enjoying the highest and best use of the land. However, the U.S. Supreme Court has made it clear that regulations that diminish the market value of the land are not, for that reason alone, a regulatory taking. The extent of the diminution in value is a factor in a multi-factor balancing test, where the Court also looks at the character of the regulation and the extent to which the regulation frustrates the investment-backed expectations of the owner.¹⁰³ In using these factors, the Court presumes the constitutionality of the regulation and places a heavy burden of proof on the challenger that the regulation is a taking. Only if all economically beneficial use of the land is prevented by the regulation, can an owner be confident (with one or two exceptions) that the regulation constitutes a taking.¹⁰⁴

EXAMPLE UPHOLDING WATER-PROTECTIVE OVERLAY ZONES DESPITE ECONOMIC IMPACT

Alachua County, Florida

Alachua County, Florida, designated the Cross Creek area as a “special study area.” The county commissioners subsequently adopted an amendment to the Alachua County Comprehensive Plan creating specific development guidelines for the area. The guidelines categorized parcels within the area as wetland zones, exceptional upland habitat zones, hammock zones (wildlife habitats of secondary value serving as transitional buffers), or active use zones. Specific development requirements were created in each zone. In *Glisson v. Alachua County*,¹⁰⁵ affected property owners challenged the regulations arguing that the county was exercising eminent domain under the guise of its police power. The court held that the regulations were not facially unconstitutional and did not constitute a taking because landowners were not denied all beneficial use of their land, and the amendment was a valid exercise of the police power to address conservation concerns.

¹⁰² TOWN OF LIMINGTON, ME., ZONING ORDINANCE § 10.1 (2013), [http://www.limington.net/documents/ZoningOrdinance%20rev.%2011.6.2012\[1\].pdf](http://www.limington.net/documents/ZoningOrdinance%20rev.%2011.6.2012[1].pdf).

¹⁰³ Penn Central Transportation Co. v. New York City, 438 U.S. 104 (1978).

¹⁰⁴ Lucas v. South Carolina Coastal Council, 505 U.S. 1003 (1992). Regulatory takings also exist in cases of physical invasion and adjudicative land use exactions, but those discussions are not applicable to the regulations discussed in this context. See, Lingle v. Chevron U.S.A., 544 U.S. 528 (2005).

¹⁰⁵ Glisson v. Alachua County, 558 So.2d 1030 (Fla. App. 1983).

9. Establish a Transfer of Development Rights Program to Prioritize Development Where Water Can Be Provided Most Efficiently

The Transfer of Development Rights (TDR) is often used to preserve critical environmental areas, farms and forests, or valuable open spaces, and may be used in this way to protect water resources and encourage a water-efficient development pattern.

There are three basic elements to a TDR Program:

1. The Sending District: The sending district is the area where the amount or intensity of development is being limited.
2. The Receiving District: The receiving district is located where additional density can be absorbed and supported with existing or expanded infrastructure.
3. The TDR credits: TDR credits are a legal representation of the abstract development rights that will be severed from a property located in the sending district and then grafted onto property in the receiving district.

TDR credits can be traded on the free market or monitored through TDR banks. When the TDR credit is purchased from a property owner in the sending district, the property owner records a deed restriction limiting or prohibiting development on the property. The TDR credit can then be applied to a property in the receiving district as a density bonus. In this way, TDR can be a more economically-preferable alternative to overlay zoning. When overlay zoning is used to create areas for conservation and development, land owners in the conservation areas with newly restricted development rights may balk at a perceived loss in value of their land (as was the case in the Alchua example discussed above). With a TDR program, landowners in the designated sending district (i.e., the conservation area) retain the value of their development rights to then sell to the TDR bank or to a property owner in the receiving district.

To conserve water, TDR should be used to avoid sprawl, which is more water intensive and exacerbates water loss. Communities should identify a receiving area with adequate existing infrastructure where infill development or development at increased densities can be encouraged and where water can be provided more efficiently. In turn, sending districts should be used to maintain open space, preserve farmland, protect water resources or aquifer recharge areas, and areas where it may be difficult to provide water efficiently.. In this way, TDR can also promote economic growth and stability by promoting densities high enough to support mixed-use and commercial development while maintaining a community's most precious resources.

EXAMPLES OF TDR PROGRAMS TO PRESERVE GREEN INFRASTRUCTURE

Adams County, Colorado

Adams County revised its Comprehensive Plan to develop a voluntary TDR tool to help manage long-range development. The plan encourages development in areas with adequate infrastructure and preserves rapidly diminishing farmland and open space. Additionally, Adams County includes TDR in its cluster development and planned unit development zoning code sections.¹⁰⁶ The code creates four designated sending areas, (including farmlands, floodplain areas, and the natural resource conservation overlay zones) and six different receiving areas. Under this TDR and PUD system, Adams County will not issue a building permit for a residential unit unless there are sufficient development rights attached to the property.

Los Ranchos, New Mexico¹⁰⁷

The Village of Los Ranchos provides for the transfer of development rights to promote economic development, preserve agricultural character, preserve scenic views, and protect the commercial development of the Village. Los Ranchos is authorized to create a TDR bank, where development rights may be purchased and conveyed by the local government in order to stabilize the market and regulate the development of property.

¹⁰⁶ ADAMS COUNTY, CO, DEVELOPMENT STANDARDS AND REGULATIONS, § 3-29-03-06 CLUSTER DEVELOPMENT AND TRANSFER OF DEVELOPMENT RIGHT STANDARDS, www.co.adams.co.us/DocumentCenter/View/491.

¹⁰⁷ VILLAGE OF LOS RANCHOS, NM, ZONING CODE §9.2.6, TRANSFER FOR DEVELOPMENT RIGHTS REGULATIONS, <http://static1.squarespace.com/static/508fe597e4b047ba54ddc41e/t/547f55c0e4b0e3ea0193b9a2/1417631168023/CHAPT+9+ART+2+SEC+6+Transfer+Development+Rights.pdf>.