

Why Use Density Bonuses & This Checklist

Local units of government may use density bonuses as part of their development review and/or subdivision approval process. This approach assumes that if specified criteria are met, then a proposed development be approved with more use of a site (such as more dwelling units per acre or more square footage of non-residential buildings) than would otherwise be permitted by the community. That is, greater development density would be allowed if certain conditions are met. These "density bonuses" are a form of incentive that a community can offer to a developer who does the kind of development that a community seeks. Thus, a city can legally and equitably say to each developer: if you do what we would like in your development then you can increase the amount of development and thereby pay for more of the improvements we request. Thus, such density bonuses may be used to achieve a wide array of community objectives, such as mixed land use, mixed income housing (affordable housing), architectural enhancements, or, as addressed in this checklist, conservation of natural resources. A list of density bonus criteria is not a freestanding document, but would need to be incorporated into a community's subdivision, zoning, or other development review regulations.

NR Checklist Series

This is one of a series of "checklists" produced for local units of government (LUG) by the Minnesota Department of Natural Resources, Metro Region. Each checklist is intended to help the community integrate natural resources into a particular type of local policy or plan. Each checklist is an outline of key components of a typical LUG planning document with important natural resource-related questions to consider and some examples, definitions, and references.

A. General Considerations

General requirements or density bonus

- ' How do the natural resource criteria listed below best fit into the community's development review process?
- ' Which (if any) of the criteria in this checklist should become part of the general development (or site plan review) requirements of the community which all development must meet?
 - ' Which are considered "extra" for purposes of giving density bonuses?
 - ' Are some forms of conservation (such as the following) so important that all development should meet them?
 - S** protection of the ecologically highest quality natural areas (such as those identified by the Minnesota County Biological Survey)
 - S** establishment of interconnecting greenways
 - S** sound stormwater management

Community priorities

- ' Does the community want to rank some of the natural resource criteria as more important than others?
 - ' For example, does the community want to use a natural resource inventory to identify and map its most

Definitions

natural area

a site largely unaltered by modern human activity, where vegetation is distributed in naturally occurring patterns.

greenway

a network of natural areas and natural resource-based open space which may be primarily intended as wildlife habitat corridors or may include trail connections

- important types and locations of natural resources, its remaining natural areas, and/or greenway or trail alignments which are given more priority?
- ' Should the community evaluate development proposals on a case-by-case basis if each site is highly variable in what natural resources are present and the potential for their conservation?
- ' Does the community want to focus the application of density bonuses and these criteria in some geographic areas?
 - ' If so, does it make sense to use an overlay district approach?

Submission Requirements

- ' What information will be needed to ascertain whether a proposed development meets the natural resource conservation density bonus criteria?
- ' Which of the following items need to be included in a detailed inventory of existing natural resources on and adjoining the site as part of the submission to get a density bonus?
 - ' a scaled map of site features, such as:
 - S existing vegetation
 - S water features and wetlands
 - S slope and topography (e.g., 2' contour intervals)
 - S soils
 - ' other descriptions and/or maps, such as:
 - S natural areas and features on adjoining properties
 - S pre-settlement vegetation
 - S site hydrology
 - S proposed natural resource conservation strategies to meet density bonus criteria

Qualitative or quantitative use of criteria.

- ' How will the natural resource criteria be used in deciding how much of a density bonus will be granted?
 - ' What would be the maximum increase in density allowed?
 - S for example, 1.5 times current density
 - ' Must all of the criteria be met?
 - ' Must a certain number of points be achieved?
 - ' Are some criteria required to be met plus a certain number of others?
 - ' What specific actions equal what numbers of bonuses?
- ' Do the criteria need to be given as quantitative measures, such as the following?
 - ' #s of feet of buffer
 - ' #s or trees or acres of forest
 - ' % of land area conserved in natural open space
- ' Should the basic process and general (qualitative) criteria be

**See Another Checklist
natural resource inventory**

A natural resource inventory and assessment identifies and prioritizes the natural resources that a community should manage through its plans and policies including development review strategies such as density bonuses. See the "Natural Resource Inventory and Analysis for City or County" Checklist..

**See Another Checklist
natural area overlay district**

One tool a community can use to protect and conserve natural areas is a natural area overlay district ordinance used in conjunction with their zoning ordinance. See the "Natural Environmental Areas Overlay District Ordinance" Checklist.

adopted in an ordinance and the specific submission requirements and any specific (quantitative) criteria in separate administrative procedures (not codified in ordinance)?

- ' Will the people responsible for reviewing submissions be adequately qualified?

Preservation and/or restoration

- ' Will density bonuses only be given for "preservation" of existing natural resources, or can they be given for "restoration" or both?
 - ' What forms of "restoration" of natural resources could be counted towards a density bonus?
 - ' Does preservation of any type of existing feature result in more density bonus credit than restoration?
 - ' For example, would credit be given for replanting (restoration) a native plant community as a buffer for an existing natural area or restoration of any undeveloped open space?

Enforcement and maintenance

- ' How will protection of any area conserved for a density bonus be enforced both during construction and in perpetuity?
 - ' Under what conditions will permanent easements, covenants, or deed restrictions be required and who will hold them?
 - ' How will conservation areas be maintained and managed? (see comments below on marking buffers with monuments - which could apply to other types of conservation areas)
- ' Will a long term maintenance plan (natural resource management plan) and agreement be required?
 - ' How will this be enforced?
- ' Will prescribed burning be permitted (and accepted by adjoining neighbors) if that is advisable for managing the natural area?
- ' Does money need to be held in escrow or a bond established to cover problems or damage that might occur during construction?
- ' Who is responsible for any repair, mitigation, maintenance, etc. for subsequent problems?

**See Another Checklist
natural area management plan**
Once a community designates a site for protection as a natural area, a site-specific inventory and management plan is needed. The elements of this type of plan are outlined in the "**Natural Area Management Plan**" Checklist.

Phasing

Larger scale phased projects or larger scale contiguous areas with multiple landowners will go through city review and approvals at different times.

- ' Will coordinated environmental review, such as through an

Alternative Urban Areawide Review (AUAR), be used?

- ' How should the review and approval of density bonuses for natural resource conservation be coordinated for different phases of a project or for different projects within an AUAR study area?
- ' How can the location and type of natural open spaces and greenways be coordinated?
- ' For example, if 20 acres of a 100 acre development were coming through the review process, could conservation open space and easements be designated for future phases at the time the first 20 acres is reviewed and approved?

B. Criteria for Conserving Natural Resources

The following are some possible general criteria as well as some options to consider.

Shoreland/Riparian Setbacks

Increase the setback of buildings, etc. from lakes, streams, and wetlands.

- ' For example, to get a density bonus should the setback have to be double what is otherwise required?

Greenways

Assure connection across the property for any relevant greenway corridor designated by the community.

- ' Should the land of this corridor be dedicated (deeded) to the city?
- ' Should extra greenway width be required to be dedicated to the local unit to qualify for a density bonus?

Habitat

Preserve and protect large blocks of intact native habitat (such as native forest, prairie, etc.).

- ' How will the native habitats whose protection results in a density bonus be identified?
 - ' Should this include natural plant communities identified through the Minnesota Land Cover Classification System?
 - ' Should it focus on areas of ecologically high quality (relatively undisturbed) native plant communities and habitat for rare and endangered species as identified by the Minnesota County Biological Survey (MCBS)?
 - ' What other types or areas of locally important habitat should be conserved?
 - ' What are the preferred or minimum sizes and shapes of protection areas that would receive credit? I.e., how can ecological considerations on the habitat type

Resources

Minnesota Land Cover Classification System (MLCCS) is a new GIS-based inventory method useful in providing land cover information for land use decision making which is being used throughout the Twin Cities Metro Region. It uses aerial photo interpretation and ground truthing to develop a GIS data layer with detailed native plant community and cultural land cover mapping to 1-2 acre polygon resolution. Contact MnDNR, Metro Region, bart.richardson@dnr.state.mn.us.

- influence reasonable size and shape for preservation?
- ' How will consideration be given on if/how such habitat is contiguous with (extends on to) adjoining property with opportunities to preserve larger, interconnected areas?
- ' How do such areas need to be preserved and managed to qualify for a density bonus?
 - ' How can the area's soil and ground layer of vegetation be protected from disturbance?
 - S For example, how would a natural forest be protected from being graded, mowed, and grazed?
 - ' How will rare and endangered plant species (and other forms of sensitive habitat) be protected from disturbance?
 - ' Will creation of buffer areas of natural vegetation be required?
 - ' Will human access be restricted or trails relocated?
 - ' Will a long term management plan be required which provides for ongoing protection of habitat?

Wooded Areas/Working Forests

Conserve wooded areas and/or trees (potentially including pine plantations, Christmas tree farms, and orchards).

- ' How will forested areas to conserve for a density bonus be identified? (see habitat discussion)
 - ' Will preference be given to conserving larger, contiguous areas of forest?
 - ' Will wetland mitigation plans be prohibited from destroying or impacting existing upland forest
- ' What forest management practices will be allowed or required?
 - ' Will forest conservation include assuring the "right to practice forestry"? That is, will active forest management practices, such as the harvest of trees for Christmas trees or timber and associated silvacultural practices, be allowed or promoted?
 - ' Will an ongoing forest management plan (particularly for plantations) be required?
- ' Will individual tree protection qualify for density bonus?
 - ' If individual tree protection is allowed, how will best management practices be used to protect the root zone and preventing construction damage?

Buffers

Provide a buffer between the development and natural areas of concern.

- ' What natural areas and other features, such as the following, would be identified as needed buffers?
 - ' wetlands
 - ' shorelands
 - ' steep slopes and bluffs
 - ' MCBS-identified native plant communities
 - ' designated greenways
- ' What width, use, demarcation, and vegetation management is required for a "buffer" to be considered for a density bonus?
 - ' Does the area would need to be established in native vegetation and appropriately maintained (e.g., not mowed, unless for wildfire hazard mitigation)?
 - ' How would the minimum width (depth) of a buffer be based upon the buffer's function, slope, and vegetative cover, using information such as the following?
 - S various research suggest a minimum depth of from 30' to 600'
 - S Forest Management Guidelines for riparian buffers suggest a minimum of 200' from the water's edge
- ' Would a buffer have to be visibly marked and differentiated from residential yards to discourage adjoining residents from mowing or encroaching on the buffer with non-native landscape alterations, such as through the following?
 - S short, small, attractive signs
 - S landscape timbers
 - S monuments with locations recorded with GPS coordinates

Undeveloped Open Space

Conserve in perpetuity at least 50% of the site in undeveloped open space.

- ' How does the community define "undeveloped open space" which could count for a density bonus?
 - ' Are areas (other than trails) excluded which are impervious (such as parking lots, tennis courts, etc.)?
 - ' Does it need to be established and maintained in non-mowed native vegetation (except for wildfire breaks)?
 - ' Is restoring and maintaining pre-settlement native plant communities in this open space given priority?
 - ' Can it be a working forest/tree plantation or agriculture if appropriate best management practices are applied?
 - ' Must this area be protected from disturbance during the construction process (e.g., not graded, driven upon, nor used for construction storage, staging, nor parking)?

- ' If any of this area is disturbed during construction, does its soil have to be “renovated” before replanting, such as through the following?
 - S deep tilling, etc. to reduce any compaction or hard pan layers
 - S incorporation of organic material

Low Impact Stormwater Management

Manage stormwater onsite through Low Impact Development (LID) techniques in order that runoff leaving the site does not exceed the rate or total volume that would exist if the site were undeveloped.

- ' How will density bonuses be given for features appropriately designed for site conditions which filter and infiltrate stormwater such as the following?
 - ' rural road sections with unmowed vegetated swales
 - ' rain gardens, etc.

Impervious Surfaces

Limit the amount of imperviousness, such as through reduced pavement width and length in streets and driveways.

- ' What reduction in imperviousness (such as the following) would qualify for a density bonus?
 - ' no more than 20% of the site in impervious surface
 - ' reduce the amount of imperviousness by ____ square feet for each additional housing unit provided through the density bonus

Shared Facilities/Utilities

Provide jointly-used (rather than individual owner) facilities whenever possible.

- ' What types of shared facilities (such as the following) would qualify for a density bonus?
 - ' shared dock or water access
 - ' installation of utilities in a common right-of-way and/or trench to minimize disruption of the site

Definitions & Resource
low impact development (LID)

a new comprehensive land planning and engineering design approach with a goal of maintaining and enhancing the pre-development hydrologic regime of urban and developing watersheds.

For more information, go to www.lowimpactdevelopment.org.