



Open Space

This guidance is intended to clarify how the Open Space Goal and Objectives of the Regional Policy Plan (RPP) are to be applied and interpreted in Cape Cod Commission Development of Regional Impact (DRI) project review. This technical bulletin presents specific methods by which a project can meet the goal and objectives.

Open Space Goal: To conserve, preserve, or enhance a network of open space that contributes to the region's natural and community resources and systems.

- ***Objective OS1 – Protect and preserve natural, cultural, agricultural, and recreational resources***
 - ***Objective OS2 – Maintain or increase the connectivity of Open Space***
 - ***Objective OS3 – Provide protected Open Space appropriate to context***
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The applicability and materiality of these goals and objectives to a project will be determined on a case-by-case basis considering a number of factors including the location, context (as defined by the Placetype of the project's location), scale, use, and other characteristics of a project.

THE ROLE OF CAPE COD PLACETYPES

The RPP incorporates a framework for regional land use policies and regulations based on local form and context as identified through categories of Placetypes found and desired on Cape Cod.

The Placetypes are determined in two ways: some are depicted on a map contained within the RPP Data Viewer located at www.capecodcommission.org/RPPDataViewer adopted by the Commission as part of the Technical Guidance for review of DRIs, which may be amended from time to time as land use patterns and regional land use priorities change, and the remainder are determined using the character descriptions set forth in Section 8 of the RPP.

The project context, as defined by the Placetype of the project's location, provides the lens through which the Commission will review the project under the RPP.



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INTRODUCTION

The vision for the future of Cape Cod is a region of vibrant, sustainable, and healthy communities, and protected natural and cultural resources. Open space is a critical element of achieving this vision.

The open space goal of the RPP is “to conserve, preserve, or enhance a network of open space that contributes to the region’s natural and community resources and systems.” Open space in all its forms provides a wide range of ecosystem services – direct and indirect contributions to human well-being – throughout Cape Cod, and helps manage the impacts associated with growth and development. Open space preservation will ensure that the values and characteristics that make this place special will be sustained and stewarded for future generations.

Cape Cod is located within the southeastern Massachusetts pine barrens ecoregion, a globally rare habitat type comprised of a unique assemblage of plants and animals that thrive on the region’s nutrient-poor soils and variable climate. Within this ecoregion, a diverse matrix of habitat types — from salt marshes to sandplain grasslands to freshwater wetlands to estuaries — supports 148 state-listed rare plant and animal species and hundreds of additional species that rely on Cape Cod’s habitats year-round, during seasonal migrations, or for breeding. Priorities for protection include high value natural resources, significant wildlife habitat, and areas that protect current and potential future drinking water supply sites.

Preserving Cape Cod’s cultural heritage, including traditional maritime and agricultural activities, as well as scenic views, natural landscapes, and community character is important to the region. Similarly, providing and preserving public access to beaches, parks, lands of community significance, walking and bicycling paths, woodland trails, and community gathering spaces throughout Cape Cod will sustain community health and well-being, as well as contribute to tourism-dependent economic activities. Connections between the natural and built environment in more densely developed areas will enhance quality of life and provide additional transportation and recreation options for residents and visitors alike.

With these priorities in mind, the provision of open space is a requirement of DRIs where new development is proposed. The methods, quantity, and form of open space provided will vary from site to site, reflective of Placetype, sensitive resources that may

be present, connections to natural and community systems, extent of development proposed, and context. The open space objectives may be met through the implementation of methods such as, but not limited to, those described on the following pages. This flexible approach to DRI review will allow for a strong correlation between the form and function of open space and Cape Cod's varied natural and community resources and systems.

DEFINITIONS

Agricultural Lands: Agricultural Lands include lands in active agricultural production or that could support agriculture based on their soils. To help identify agricultural lands, soils data from the U.S. Department of Agriculture Natural Resources Conservation Service's Web Soil Survey and MassGIS' Prime Farmland Soils should be reviewed. Other indicators of the presence of agricultural lands are local agricultural zoning and lands enrolled in Massachusetts' Chapter 61A (Agriculture) program.

Area of Development Impact: The Area of Development Impact is the total undeveloped area on a project site anticipated to be impacted by a proposed development.

Areas Vulnerable to Flooding: Any land which is subject to inundation caused by coastal storms and sea level rise, including V and A Zones as defined by FEMA, and that predicted to be caused by the 1% annual storm for 2070, as defined by the Massachusetts Coast Flood Risk Model. A Zones include the Coastal A (MoWA) and A Zone (MiWA) identified in the draft DEP Floodplain regulations, excluding A zones without elevations determined.

Cultural Resources: Cultural resources include cultural landscapes and scenic resources. A cultural landscape is a geographic area associated with an historic event, activity, or person, or exhibiting other cultural or aesthetic values. There are four general types of cultural landscapes, not mutually exclusive: historic sites, historic designed landscapes, historic vernacular landscapes, and ethnographic landscapes. Scenic resources are locations or areas that are recognized, utilized, and enjoyed by the public for their visual and scenic qualities and whose features, views, patterns, and characteristics contribute to a distinct sense of appreciation of the natural and cultural environment.

Development: Any of the following undertaken as a part of a Development of Regional Impact pursuant to Section 2 of the *Cape Cod Commission Enabling Regulations Governing Review of Developments of Regional Impact*, Barnstable County Ordinance 90-12: any building, construction, renovation, mining, extraction, dredging, filling, excavation, or drilling activity or operation; any material change in the use or appearance of any structure or in the land itself; the division of land into parcels; any change in the intensity of use of land, such as an increase in the number of dwelling units in a structure or a change to a commercial or industrial use from a less intensive

use; any activity which alters a shore, beach, seacoast, river, stream, lake, pond, canal, marsh, dune area, woodland, wetland, endangered species habitat, aquifer, or other resource area, including coastal construction or other activity within the jurisdictional limits of Barnstable County; demolition of a structure; the clearing of land as an adjunct of construction; or the deposit of refuse, solid or liquid waste, or fill on a parcel of land or in any water area.

Low Impact Development (LID): Innovative stormwater management systems that are modeled after natural hydrologic features. LID manages rainfall at the source using uniformly distributed, decentralized, micro-scale controls. LID uses small, cost-effective landscape features located at the lot level. LID takes the form of techniques (e.g., porous pavement) or practices (e.g., reduced front yard setback).

Open Space: The term open space in the context of this Technical Bulletin is used to refer to lands with natural, cultural, agricultural, and passive recreational resource values. These lands include protected open spaces owned and managed by a town or land trust and dedicated to conservation or recreation, as well as undeveloped lands with potential for protection for their open space resource values. Open space can be used to provide buffers to development, protect sensitive resources, and/or for passive recreation – outdoor activities that occur in a natural setting with minimum disturbance of natural and cultural resources and that are consistent with quiet enjoyment of the land.

Potential Public Water Supply Area (PPWSA): Land identified as suitable for the development of public water supplies.

Rare Species: Plant and animal species listed as endangered, threatened, or special concern under the Massachusetts Endangered Species Act. These species are tracked in the NHESP database. These species are either at risk, or may become at risk, of extinction. Rarity in the state, population trend, and overall threat are the main criteria used to determine extinction risk. Rare Species in Massachusetts are threatened primarily due to habitat loss or degradation.

Significant Habitat Areas: Natural resources identified as important for protection and include Natural Heritage and Endangered Species Program BioMap areas, State Wildlife Action Plan Key Sites, Important Bird Areas, Areas of Critical Environmental Concern,

and Districts of Critical Planning Concern where wetlands, wildlife, and plant habitat are identified as a concern.

Vernal Pool: A wildlife habitat that supports standing water for a period of time from spring into summer and which provides habitat for vernal pool species. For the purposes of DRI review, vernal pools include both those sites which have been certified by the NHESP, and those sites which have the characteristics that make them certifiable by the NHESP. Maps of certified vernal pools and potential vernal pools are available in the RPP Data Viewer.

Wellhead Protection Area (WHPA): Lands receiving precipitation that contribute to the recharge of public drinking water supply wells are considered Wellhead Protection Areas (WHPA). These include MADEP approved Zone IIs, interim wellhead protection areas, and certain town delineated water protection districts that extend beyond the Zone II limits.

Wetland: An inland area of 500 square feet or greater including wet meadows, marshes, swamps, bogs, and areas of flowing or standing water, such as rivers, streams, ponds, and lakes, or a coastal area including beaches, dunes, barrier beaches, coastal banks, intertidal areas, salt marshes, and land under the ocean. Wetlands may border water bodies or may be isolated. Wetlands are generally described in the Wetlands Protection Act and delineated in accordance with the boundary delineation methods set forth in the relevant sections of 310 CMR 10.00. All wetlands, regardless of whether bordering on other waterbodies or isolated, are protected under the RPP.

SUMMARY OF METHODS

GOAL | OPEN SPACE

To conserve, preserve, or enhance a network of open space that contributes to the region's natural and community resources and systems.

Objective OS1 – Protect and preserve natural, cultural, agricultural, and recreational resources

METHODS

- Minimize Development footprint and impacts
- Protect and preserve high value resources

Where the following resources are present on the project site, implementing the following method(s) support consistency with OS1:

- Protect existing Wellhead Protection Areas and lands suitable for future water supply sites
- Preserve wildlife habitat and unfragmented blocks of Open Space
- Preserve the region's Agricultural Lands and scenic vistas
- Preserve Open Space that benefits cultural heritage and community character
- Provide and enhance public passive recreational opportunities and access to Open Space

Objective OS2 – Maintain or increase the connectivity of Open Space

METHODS

- Protect Open Space contiguous to undeveloped lands or protected Open Space

Where wildlife corridors, greenways or trails are present on or abutting the project site, implementing the following method(s) support consistency with OS2:

- Preserve wildlife corridors and opportunities for the movement of wildlife
- Establish, enhance, and connect greenways and recreational trails

Objective OS3 –Provide protected Open Space appropriate to context

METHODS

- Projects must provide protected Open Space according to Placetype context in the ratio and via the mechanism indicated in the Summary of Open Space Mechanisms and Ratios Specific to Placetype below.
- Preserve Open Space that benefits natural and community systems

SUMMARY OF OPEN SPACE MECHANISMS AND RATIOS SPECIFIC TO PLACETYPE:

The ratios below represent the relative amount of protected Open Space to Area of Development Impact (ADI). The available mechanisms for meeting the Open Space requirement are set forth below.

Natural Areas | 3:1 – provide high-quality Open Space onsite, or in areas of higher or equal ecological value offsite

Rural Development Areas | 2:1 – provide high-quality Open Space onsite, or in areas of higher or equal ecological value offsite

Suburban Development Areas | 1:1 – provide high-quality Open Space, adequate buffers and pedestrian amenities onsite, offsite, or by cash contribution

Historic Areas | 1:1 – provide streetscape improvements and/or pocket park appropriate to context onsite, offsite, or by cash contribution

Maritime Areas | 1:1 – provide streetscape improvements and/or pocket park appropriate to context onsite, offsite, or by cash contribution

Community Activity Centers | 1:2 –provide public pocket parks, streetscape improvements and/or public sitting areas onsite, offsite, or by cash contribution

Industrial Activity Centers | 1:1 – provide substantial buffers to development and protect sensitive resources onsite, offsite, or by cash contribution

Military and Transportation Areas | 1:1 – provide substantial buffers to development and protect sensitive resources onsite, offsite, or by cash contribution

DETAILED DISCUSSION OF METHODS FOR MEETING OBJECTIVE OS1

Objective OS1 – Protect and preserve natural, cultural, agricultural, and recreational resources

The applicability and materiality of Objective OS1 to a project will be determined on a case-by-case basis considering a number of factors including the location, context (as defined by the Placetype of the location), scale, use, and other characteristics of a project. OS1 will generally be applicable to projects proposed on lands containing natural, cultural, agricultural, or recreational resources. The following methods may be implemented to demonstrate consistency with this Objective:

Minimize Development footprint and impacts

Projects within all Placetypes should be designed to protect and/or preserve those areas with the highest natural resource value and to ensure that the most sensitive elements of a site are not impacted by Development. Applications for Developments of Regional Impact that propose to alter undeveloped areas must include a Natural Resources Inventory (NRI, see Wildlife and Plant Habitat Technical Bulletin) to provide guidance on significant natural resources and characteristics that should be given consideration during site design, including identifying lands that are a high priority for conservation. Applicants should also inventory significant cultural or recreational resources present.

On sites where high value natural resources, important wildlife habitat, or other significant resources are not present or do not create site design constraints, Development should be sited close to existing development, roadways, and infrastructure to limit the area of site disturbance. In all cases, however, applicants must minimize Development footprints including minimizing the clearing of trees and other natural vegetation.

By limiting impervious surfaces, more land will be left in its natural state, which will provide ecological benefits. Approaches for minimizing impervious surfaces include reducing paved areas by reducing parking or using asphalt alternatives or providing some or all of a Development's parking facilities under buildings or in multi-level parking structures. Removal of existing impervious surfaces on a site and replacing these with pervious alternatives or restoring these areas with native vegetation is also encouraged.

Locating a project outside of Natural and Rural Development Placetype Areas will lessen the Open Space requirement and may also allow for more flexibility in how Open Space is provided. To the extent feasible, for redevelopment projects in Natural and Rural Development Placetype Areas, designers should strive to lay out site features to remove existing development from sensitive resource areas and restore or enhance natural and community system functions.

Protect and preserve high value resources

REGIONAL PROTECTION PRIORITIES

The permanent protection of land and resources within Natural Areas, Significant Habitat Areas, water supply areas, and Areas Vulnerable to Flooding (see also Coastal Resiliency Technical Bulletin) are regional priorities. Natural resources that are the highest priorities for protection on Cape Cod include:

- Protected Open Space,
- BioMap Core Habitats and Critical Natural Landscapes,
- Habitat for Rare Species,
- Vernal Pools and their buffers,
- Wetlands and waterbodies and their buffers,
- Potential Public Water Supply Areas (PPWSAs), and
- Undeveloped lands within Wellhead Protection Areas (WHPAs).

These areas provide a critical function in preserving the integrity and viability of Cape Cod's significant biodiversity and the vital ecosystem services life depends on.

Additional priorities for protection or preservation include:

- Large unfragmented blocks of undeveloped land and wildlife corridors;
- Undeveloped lands in Areas Vulnerable to Flooding;
- Historic, cultural, and archaeological resources;
- Regionally significant scenic vistas and roads;
- Agricultural and forested lands;
- BioMap Local and Regional Components;
- The region's working waterfronts and maritime heritage;
- Properties that help define the natural character of the region or ensure equitable access to Open Space;

- Unique landforms; and
- Public passive recreational resources.

Protect existing Wellhead Protection Areas and Lands Suitable for Future Water Supply Sites

The protection of the Cape's existing and potential water supply sites is a regional priority as these areas protect the region's current and future drinking water sources. Wellhead Protection Areas are important for protecting the recharge area around public water supply groundwater sources from contamination. The protection of future water supply sites is important to ensure access to additional sources of drinking water in the future. Keeping these areas as natural as possible is critical to take advantage of the water filtering services of native trees and soils.

Much of Cape Cod is located within the WHPAs of public water supply wells (also known as Zone 2s). Ideally these areas should have no or minimal Development in order to protect water supply and facilitate recharge of the sole source aquifer, though in practice, large areas within Zone 2s are already developed. The goal moving forward is to protect remaining undeveloped land within Zone 2s, and where Development cannot be avoided, projects proposing new Development within Zone 2s must minimize the size and impact of Development within these areas. Where possible, configuring Development outside of these areas will help to reduce impacts and minimize mitigation requirements.

Similarly, lands identified as future water supply sites are generally undeveloped and a priority for protection. Accordingly, these lands are subject to higher standards of review. Ideally, Development should not be proposed in these areas. Where Development cannot be avoided, projects proposing new Development within PPWSAs must minimize the size and impact of Development within these areas. Where possible, configuring Development outside of these areas will help to reduce impacts and minimize mitigation requirements. The Water Resources Technical Bulletin provides additional strategies and resources for protecting the region's drinking water supply.

Preserve wildlife habitat and unfragmented blocks of Open Space

Clustering Development will reduce fragmentation of open lands and habitat, which supports healthy ecosystem function, and preserves interior wildlife habitat. For residential subdivisions and commercial subdivisions of land, clustering Development is

strongly encouraged unless it is inconsistent with local bylaws. The design of cluster residential and commercial Developments should preserve natural and community resources, maximize contiguous Open Space, respect the natural topography and character of the site, and employ wastewater treatment alternatives to allow for more compact Development.

Preserve the region's Agricultural Lands, scenic vistas, cultural heritage, and community character

Preservation of the region's rich cultural heritage and community character is supported through flexibility in Open Space requirements within Maritime Areas and Historic Areas. Provision of public access to community greenspaces within Historic Areas and Maritime Areas may be proposed as methods for meeting Objective OS1.

The viability and sustainability of working landscapes, including lands in agricultural production and working waterfronts, should be preserved to the greatest extent possible, to support the local economy, preserve Cape Cod's cultural heritage, and provide opportunities to meet some of the region's food production needs locally and sustainably.

Scenic resources are locations or areas that are recognized, utilized, and enjoyed by the public for their visual and scenic qualities and whose features, views, patterns, and characteristics contribute to a distinct sense of appreciation of the natural and cultural environment. If there are regionally significant views within, towards, or across a site, Development should be designed to allow for continued access to those views to the greatest extent possible. The preservation or reestablishment of historic views to water or landscape vistas is encouraged (see also the Community Design Technical Bulletin).

Provide and enhance passive recreational opportunities and access

The provision of public access to on-site Open Space is encouraged. If the site is adjacent to publicly accessible Open Space, a designated greenway within the property to the off-site Open Space should be provided.

The preservation of public access to resource-dependent passive recreational activities, including but not limited to hiking, foraging, swimming, and fishing, is a high regional priority.

The provision of public access that benefits people of all ages and abilities through the establishment of ADA compliant pathways is also encouraged.

DETAILED DISCUSSION OF METHODS FOR MEETING OBJECTIVE OS2

Objective OS2 – Maintain or increase the connectivity of Open Space

The following methods may be implemented to demonstrate consistency with Objective OS2 for projects adjacent to lands containing natural, cultural, agricultural, or passive recreational resources.

Protect Open Space contiguous to undeveloped lands or protected Open Space

In cases where the project site abuts land that has been permanently restricted for conservation or preservation purposes, or abuts unprotected undeveloped lands of natural or cultural value, or where it is adjacent to working landscapes such as lands in active agricultural production, site design should protect contiguous Open Space. This will expand unfragmented wildlife habitat, buffer Development, and support healthy ecosystem function.

Protection of Open Space that is contiguous to undeveloped land that is not restricted provides for future expansion of the block of unfragmented Open Space, should the opportunity arise.

The “Protected Open Space and Recreation” layer visible in the RPP Data Viewer and MassMapper are useful resources for identifying contiguous Open Space that should be taken into consideration during site design.

Preserve wildlife corridors and opportunities for the movement of wildlife

By reviewing the habitat types present on and adjacent to the property, as described in the NRI and the RPP Data Viewer, significant blocks of wildlife habitat and corridors of connected Open Space for the movement of wildlife across the landscape can be identified and protected. Topography, existing and proposed land use, and species requirements should be considered when determining the necessary wildlife corridor width. Preservation of wildlife corridors must be factored into the placement of fencing on-site when this method is applicable.

Establish, enhance, and connect greenways and recreational trails

The RPP Data Viewer is a useful tool for identifying existing pathways to water, trails, and/or multi-modal greenways – a linear Open Space along either a natural corridor or a right-of-way converted to recreational use – on the project site itself and/or on neighboring properties. When designing the site, any existing greenway connections on the property should be preserved to the greatest extent possible. The establishment of a new multi-modal greenway section across the property, connected to an existing off-site multi-modal greenway is encouraged.

DETAILED DISCUSSION OF METHODS FOR MEETING OBJECTIVE OS3

Objective OS3 – Provide protected Open Space appropriate to context

The following methods may be implemented to demonstrate consistency with Objective OS3.

DRIs are required to provide Open Space appropriate to context. The following section addresses identification of Open Space required, including how to calculate the Area of Development Impact (ADI); identifying and incorporating Open Space appropriate to the Placetype; ensuring that the site design protects lands of high natural resource value and that it benefits natural and community systems; and alternate methods for meeting the Open Space requirement on an off-site parcel or through a cash contribution.

In determining a DRI's Open Space mitigation requirement, Commission staff will assess both the extent and present conditions of the ADI. The NRI will guide Commission staff in determining the quality and quantity of Open Space mitigation appropriate to the project, in alignment with Placetype designation.

Calculate Area of Development Impact

The ADI is the total undeveloped area on the site anticipated to be impacted by the proposed Development. The project's civil engineer should calculate the square footage or acreage of areas disturbed by Development activity, calculated for each Placetype if multiple Placetypes are present, and provide this on the proposed conditions plan. Depending on the size and location of the project, the ADI may encompass multiple Placetypes. The applicant must calculate the Open Space mitigation requirement for each applicable Placetype separately, then combine them to determine the total protected Open Space requirement. For example, if a project's ADI is 2 acres with 1 acre located in the Natural Areas Placetype and 1 acre located within a Suburban Development Area Placetype, the Open Space requirement would be calculated as follows: Natural Area (1 acre at 3:1 = 3 acres mitigation) + Suburban Development Area (1 acre at 1:1 = 1 acre mitigation) = 4 acres total Open Space required.

In redevelopment projects, the ADI will be determined on a case-by-case basis, with consideration of existing and recent historical conditions. Managed landscaped areas

adjacent to existing buildings or parking (for example, landscaped islands within parking lots and lawn and landscaped areas next to buildings and between buildings and parking lots) will be considered disturbed and excluded from the ADI. Other managed, landscaped, or disturbed areas may also be excluded depending on the site context and existing conditions of the area as documented in an existing conditions plan or resource inventory.

Where land is being subdivided for the purpose of residential, commercial, or other lot Development, the ADI includes the total undeveloped area proposed to be subdivided and/or developed. This provision encourages efficient use of land and clustering to reduce overall impacts.

Any Open Space lot/area preserved in perpetuity as part of the project can be excluded from the ADI and may be counted towards the Open Space protection requirement.

To incentivize reducing impervious surfaces due to parking, provision of some or all of a Development's parking under buildings or in multi-level parking structures reduces the ADI on a site, which in turn reduces the Open Space requirement. On sites with structured parking, reduce the ADI by twice the area of the structured parking.

If the following criteria are met, the amount of required Open Space may be reduced by up to 20%:

- If no sensitive resource areas are present, including Natural Areas resources which include protected Open Space, BioMap Core Habitats, Critical Natural Landscapes, Rare Species habitat, PPWSAs and undeveloped lands in WHPAs, and Wetlands, waterbodies, and Vernal Pools and buffers to these resources, Areas Vulnerable to Flooding, cultural or historic resources, Agricultural Lands or soils; and,
- If higher quality Open Space is provided than what is impacted by the project, as determined by the number, value, and/or significance of the resources to be protected.

Additional flexibility in addressing the Open Space requirement may be allowed, including further reductions in the ratio or method of meeting this requirement, depending on the size and condition of the ADI and the surrounding context. Where flexibility is allowed, the method identified should not result in substantial detriment to

or derogation from the purposes and values intended to be protected or promoted by the Open Space goal and objectives.

Protect Open Space appropriate to context

How a project meets the Open Space requirement may vary by Placetype, and may include the protection of land onsite (preferred in Natural and Rural Development Placetype Areas), protection of land on an offsite parcel (may be the preferred method if the land protected has higher resource-protection value), or provision of a cash contribution to the town's Open Space acquisition fund. A combination of these methods may also be permitted. Applicants should consult with the town (including but not limited to planning departments, conservation committees, and open space committees), and land trusts early in their project planning process to help identify appropriate Open Space protection methods.

Natural Areas – The permanent protection of high value resources within Natural Areas is a regional priority. Development is discouraged in Natural Areas due to the sensitivity of resources present. The only way a DRI proposed in a Natural Area Placetype can meet Open Space objectives is to permanently restrict land from Development in the same or higher ecological value Natural Areas, in a minimum ratio of three parts Open Space to one part Development. In Natural Areas, permanently protected Open Space which is of equal or higher ecological value to the ADI may be provided on-site. Projects located in Natural Areas may provide permanently protected Open Space offsite if Commission staff finds that the interests of resource protection would be better met than providing protected Open Space on the project site.

Rural Development Areas – Methods such as clustering Development to allow for the permanent protection of a larger unfragmented block of Open Space are encouraged. The only way a DRI can meet Open Space objectives in Rural Development Areas is to permanently restrict land from Development, in a ratio of two parts Open Space to one part Development. In Rural Development Areas, permanently protected Open Space which is of equal or higher ecological value to the ADI may be provided on-site. Projects located in Rural Development Areas may provide permanently protected Open Space offsite in Natural or Rural Development Areas if Commission staff finds that the interests of resource protection would be better met than providing protected Open Space on the project site. An Agricultural Preservation Restriction (APR), Private APR, or

Conservation Restriction (with agriculture as a permitted use) may be appropriate approaches for preserving farmland on the project site or on a suitable parcel offsite.

Suburban Development Areas – Required Open Space in an amount equal to the total ADI may include: on-site protection of significant natural and/or community resources; permanent protection of offsite land in Natural or Rural Development Areas; or provision of greenspace within the Suburban Development Area community system the project is a part of, such as a pocket park, multi-modal greenway, or public recreation area. A cash contribution may also be used to meet the Open Space requirement.

Historic Areas – Protecting character of historic areas, including viewsheds and cultural landscapes, is a priority within this Placetype. Impacts may be mitigated by providing public access to historic features, structures, and/or vistas in order to preserve the community's connection to its historic and cultural heritage. Streetscape improvements appropriate to historic context, pocket parks, or sitting areas, may be considered onsite Open Space in this Placetype. Permanent protection of offsite Open Space in a Natural Area or Rural Development Area, or a cash contribution may also be used to meet the Open Space requirement.

Maritime Areas – Protecting maritime character and coastal access are priorities in this Placetype. Projects should be designed to minimize Development impacts on maritime activities and to preserve community character, including providing public pathways to scenic shoreline vistas or working waterfronts. Streetscape improvements appropriate to maritime context, pocket parks, or sitting areas may be appropriate. Where development is proposed in Areas Vulnerable to Flooding, contributing toward reducing development in the floodplain, helping to elevate or floodproof public infrastructure, and/or restoring coastal resource areas so their natural functions are supported/improved may be appropriate. Permanent protection of offsite Open Space in a Natural Area or Rural Development Area, or a cash contribution may also be used to meet the Open Space requirement.

Community Activity Centers – Development with context sensitive design (see Community Design) in Community Activity Centers is strongly encouraged. Parks, multi-modal greenways, streetscape improvements appropriate to context, stormwater management systems that provide significant natural or community benefits, or outdoor community gathering spaces within the associated Community Activity Centers may be considered Open Space. Where development is proposed in Areas Vulnerable

to Flooding, contributing toward reducing development in the floodplain, helping to elevate or floodproof public infrastructure, and/or restoring coastal resource areas so their natural functions are supported/improved may be appropriate. If high value natural resource areas are impacted, Open Space onsite, or Open Space of equal or higher ecological value offsite should be permanently conserved. Community access to Open Space and recreational resources should be considered and prioritized to meet this objective. A cash contribution may also be used to meet the Open Space requirement.

Industrial Activity Centers – Development in Industrial Activity Centers is strongly encouraged. Multi-modal greenways, streetscape improvements appropriate to context, stormwater management systems that provide significant natural or community benefits, or restoration of degraded lands may meet Open Space requirements within the associated Industrial Activity Centers. If high value natural resource areas are impacted, Open Space onsite, or Open Space of equal or higher ecological value offsite should be permanently conserved. A cash contribution may also be used to meet the Open Space requirement.

Military and Transportation Areas – If high value natural resource areas are impacted, Open Space onsite, or Open Space of equal or higher ecological value offsite should be permanently conserved. Maintaining adequate buffers between incompatible uses is a priority in designing industrial sites, and quality buffers may be used to meet the Open Space requirement. Permanent protection of offsite Open Space in a Natural Area or Rural Development Area, or a cash contribution may also be used to meet the Open Space requirement.

Protect Open Space of high natural resource value

The protection of Open Space of high natural, cultural, and/or recreational resource value and areas that contribute to preserving the integrity and viability of Cape Cod's biodiversity is a priority. The presence of Rare Species habitat, Wetlands, and other sensitive resources on-site will affect site design, project review, and Open Space requirements. Areas of high natural resource value include protected Open Space, BioMap Core Habitats and Critical Natural Landscapes, habitat for Rare Species, Vernal Pools and their buffers, Wetlands and waterbodies and their buffers, PPWSAs, and undeveloped lands in WHPAs. Additional areas with high natural resource value include undeveloped lands in Areas Vulnerable to Flooding, cultural or historic resources, and

Agricultural Lands or soils. The methods outlined in the previous sections provide guidance on preserving unfragmented blocks of undeveloped land, connections with contiguous Open Space, scenic vistas, landscapes that contribute to community character, working landscapes, wildlife corridors, and habitat for Cape Cod's native flora and fauna.

Preserve Open Space that benefits natural and community systems

In determining how to incorporate Open Space into a project, form and function consistent with the natural and community systems context should be taken into consideration. The proposed project must demonstrate how natural and community systems have been factored into site design and proposed Open Space.

The project site should be designed to support and sustain natural and community systems, irrespective of property boundaries. This will allow for a holistic, systems-based approach to Open Space protection, as ecosystems, watersheds, wildlife habitat, multi-modal greenways, and other resources extend beyond property boundaries. Applicants should strive to take advantage of opportunities to link on-site and off-site Open Space to expand the contiguity of Open Space.

Protection or restoration of key areas which contribute to coastal resiliency support natural and community systems long-term. On-site or off-site provision of Open Space to improve coastal resiliency is encouraged. The Coastal Resiliency Technical Bulletin provides additional strategies and resources for meeting additional Coastal Resiliency objectives.

In Community Activity Centers and Industrial Activity Centers and based on the characteristics of a specific project and the resources present, Commission staff may consider allowing stormwater management systems which incorporate Low Impact Development (LID) principles, protect floodplain function, provide significant flood reduction benefits, or support coastal resiliency to meet Open Space requirements. (See also Water Resources and Community Design Technical Bulletins.)

While there is flexibility in how and where Open Space is provided based on Placetype, as discussed above, Open Space should benefit natural or community resources and systems to meet the Open Space requirements. For example, landscaped islands within parking lots, narrow buffers between developed areas, and drainage

structures/detention basins that do not provide significant natural or community benefits will not be counted towards Open Space requirements.

OFF-SITE OPEN SPACE

As detailed in the Summary of Open Space Mechanisms and Ratios Specific to Placetype, Open Space may be provided by one of three methods based on Placetype. In Natural Areas and Rural Development Areas, onsite Open Space or off-site Open Space in a Natural Area or Rural Development Area with the same or higher ecological value is required, but in other Placetypes Open Space may be met by one or a combination of onsite, offsite, or cash contribution methods. Offsite Open Space may be suitable for project sites with low natural resource values, or dependent on the type of Development being proposed. The determination of the appropriateness of off-site protection of Open Space will be made by Commission staff in consultation with the town in which the DRI is located (including but not limited to planning departments, conservation committees, open space committees, and land trusts), based upon the size and type of Development that will be mitigated with Open Space protection, and the resource values of the proposed off-site location. Applicants should work with the town and local land trust to identify appropriate off-site Open Space protection methods. Commission staff is also available to work with the applicant, town and local land trusts to help identify appropriate off-site parcels. Open Space proposed for off-site protection should be of equal or higher natural resource value as the land being impacted by Development, or provide a significant Cultural Resource value (such as public access to Open Space or to the water, preservation of farmlands, cultural landscapes, or passive recreational lands).

Off-site Open Space within the town where a Development is proposed is preferred; however, where the town and the local land trust agree, and where there is land of higher ecological value available within the region, off-site Open Space may be provided in other towns, starting with adjacent towns.

In the case of off-site Open Space protection, Development rights on the property must be permanently extinguished and the land may not be used toward the calculation of densities for future Development on the subject parcel or any other parcels.

CONTRIBUTE FUNDS FOR OPEN SPACE PROTECTION OR RESTORATION

In appropriate cases, Commission staff may allow a DRI to meet the Open Space requirement through a cash contribution to a town or land trust's Open Space acquisition fund. This provision allows a community to protect higher value or priority Open Space off-site and for more concentrated Development in certain locations. The availability of this option is limited by Placetype (see Summary of Open Space Mechanisms and Ratios Specific to Placetype) and based on whether sensitive resources are present.

While use of cash contributions within the town where a Development is proposed is preferred, where the town and the local land trust agree, and where funds are contributed to acquire land of higher ecological value within the region, funds may be used in other towns, starting with adjacent towns.

Using funds for Open Space acquisition is preferred; however, if the town or local land trust has a restoration project that will restore lands of high ecological value, the cash contribution may be used for restoration, including undevelopment of land that is or will be permanently protected, provided the request for funds is associated with a well-vetted plan.

The cash contribution provided must be no less than 110 per cent of the fair market value or value in use of the land to be developed, whichever is higher, as determined by Commission staff after an independent appraisal. The funding provided will be held by the County and dedicated solely for the acquisition or restoration of permanently protected Open Space as specified above.

INCORPORATE GREENSPACE INTO THE BUILT ENVIRONMENT

All people on Cape Cod should have access to greenspace in their communities. Projects in more densely developed Placetypes, such as Suburban Development Areas, Historic Areas, Maritime Areas, Military and Transportation Areas, and Community and Industrial Activity Centers, should support the natural and community systems they are a part of by designing sites and providing greenspace in a manner that integrates the built environment through landscape improvements, provides access to outdoor spaces, and enriches community connections. In Community Activity Centers, for example, pocket parks, passive recreational areas, multi-modal greenways, walking paths shaded by native trees, and community gathering spaces may be incorporated

into the built environment to sustain community health and well-being. (See also the Community Design Technical Bulletin).

RESTORE DEGRADED AREAS TO A NATURAL STATE

The restoration of degraded areas on-site to provide significant natural, scenic, and/or recreational benefits may meet some or all of the Open Space requirement, depending on the specific natural or community systems the site is a part of. The removal of existing structures on-site to reestablish scenic vistas, restore resource functions, improve the region's resilience to the effects of severe storms and climate change, reduce the amount of fragmented habitat, or enable wildlife corridor connections are all encouraged. Any site revegetation should be consistent with the natural and community systems the site is a part of and should utilize native species. Where projects located on severely degraded areas such as gravel pits and landfill sites are revegetated, at Commission staff's discretion, the revegetated areas may be counted toward meeting the Open Space requirement; these areas should be regraded consistent with the surrounding topography in a manner that reduces or eliminates potential erosion.

GUIDANCE ON THE PERMANENT PROTECTION OF ONSITE AND OFFSITE OPEN SPACE

In order for onsite and offsite Open Space to meet any permanent protection requirements as a condition of DRI approval, it must be restricted in perpetuity for conservation, agriculture, and/or passive recreation purposes.

For those DRIs that elect to meet OS3 by the restriction of Open Space on or offsite, the following methods may be implemented:

- Land donated to the town in which the DRI is located for conservation purposes
- Land donated to a nonprofit (501(c)(3)) conservation organization or land trust
- Conservation Restriction placed on land, held by town or land trust
- Land held by homeowner's or condominium association with permanent Deed Restrictions in place

Donation in Fee to a Town, Conservation Organization, or Land Trust

To meet any Open Space protection requirements, an Applicant should consider donating the property outright to the town the property is located within, a nonprofit conservation organization, or a land trust. Donating a property in fee for conservation purposes may be the most efficient means for meeting the Open Space requirement, providing the property has characteristics that make it conducive to a donation and that a partner has been identified who is willing to accept the donation and stewardship of the property in perpetuity.

Donations made to a town should be placed under the care, custody, and control of a Conservation Commission pursuant to MGL, c. 40, §. 8C.

Conservation Restriction

Where ownership is retained by an individual, corporation, or association, a perpetual Conservation Restriction (CR) must be placed on the Open Space to ensure its permanent protection. Conservation Restrictions are authorized by MGL, c. 184, Sections 31-33. For working farmlands, an Agricultural Preservation Restriction (APR) or Private APR may be more appropriate, or a CR with agriculture as a permitted use.

CRs must be approved by the holder of the restriction (Grantee), as well as locally (by the Board of Selectmen/Town Council and Conservation Commission). The Applicant

should provide evidence of having located a willing Grantee to accept the CR prior to a decision on the project. CRs must also be approved by the Secretary of Energy and Environmental Affairs (Secretary) and recorded at the Registry of Deeds or Land Court. If there is a mortgage on the property, the lender must subordinate the mortgage to the CR or provide a partial release for the land under CR. These requirements must be met before a Certificate of Compliance will be issued by the Cape Cod Commission and may be required earlier in the process for some types of projects as a result of permit conditions. It is advisable to submit a draft of the CR for state review prior to proceeding with local approvals of the CR.

Applicants are advised that the approval process for a CR may take several months, and consequently are advised to begin drafting the CR well in advance of seeking compliance with this requirement.

A CR should confer a public benefit in order for the Secretary to make a finding of “public interest” in approving the CR. Such public benefits include: the protection of archeological or historic resources or sites; minimization of “damage to the environment” as defined in M.G.L. Ch. 30 Sec. 61; the protection of beautiful scenery visible from a public road or waterway; the protection of public drinking water sources; the preservation of the historic rural or cultural character of the municipality; the maintenance of critical wildlife habitat, Wetlands, or other important ecosystems; the preservation and conservation of farm, forest, or grazing lands; and/or public use and public access to the restricted site. It should also be noted that the Secretary will generally not accept landscaped yards, driveways, roads, private tennis courts, pools, etc. for inclusion in lands subject to a CR. However, there are some uses such as recreation fields that may be included when a public benefit can be demonstrated. The public benefit provided by the CR must be specified in the restriction.

CRs are considered permanent. Once a CR is placed on a parcel it can only be released after a public hearing and vote by the Selectmen or Town Council, and with approval by the holder (Conservation Commission, land trust, etc.), the town through Town Meeting, the Secretary, and the Massachusetts Legislature.

Activities Allowed within Protected Open Space

The types of activities allowed within protected Open Space will be based on the resources present on the site and the Placetype context. Applicants should work closely

with the intended owner of the Open Space and/or holder of the CR when designating and determining the use(s) of the Open Space.

Protection of Significant Ecological Resources — Within sensitive ecological and/or wildlife habitat areas (such as Rare Species habitat, dunes, or other high value resource areas), it may be necessary to restrict public access and use of the Open Space.

Passive Recreation — Passive recreation involves the use of existing natural resources and does not require any Development or alteration of existing topography or the use of motorized vehicles. Certain kinds of passive recreation may necessitate minimal alteration of existing vegetation for trail creation, maintenance, and other management activities. Depending on the site and the Placetype, active recreational areas such as playing fields may be an allowed use on land set aside as Open Space, if the Town agrees to accept the land for this purpose in fee simple.

Cultural Respect Easements – A Cultural Respect Easement is a legal agreement that guarantees Indigenous people cultural access to land in perpetuity. Cultural Respect Easements provide Indigenous people with safe areas to practice their traditional and spiritual lifeways, such as ceremonies, seasonal celebrations, camping, and more.

Agricultural Activities — In appropriate circumstances, agriculture may be an allowed use on land set aside for Open Space. Instances where agriculture will not adversely impact Rare Species or their habitats, or adversely impact Wetlands or water quality, may be included as allowed uses in a CR. Possible language within the reserved rights section of a CR may include allowances for agricultural activities such as pasture lands, crop lands, and lands accessory to agriculture. Where land is being donated to meet the Open Space requirement, land in active agricultural or planned for that use may be accepted. These lands typically should not contain structures. However, small structures that are integral to the agricultural operation (e.g. small sheep shelter within a field, pump house for cranberry bogs, fencing around pastures) may be considered by Commission staff as allowable within the Open Space. Where the primary purpose of the land is as a working farm, an APR or Private APR may be a more appropriate method than a CR to set aside the land.

Other Forms of Restriction in Special Circumstances

In general, covenants, deed restrictions, and special permits do not satisfy a requirement for permanent protection of Open Space. In limited situations, such as when LID stormwater systems are incorporated into site design and provide natural/community benefits or in some Development/redevelopment projects that incorporate greenspace into site design in the Community Activity Centers or Industrial Activity Centers Placetypes, covenants, deed restrictions, and special permits may be an appropriate tool to meet the Open Space requirement.

GENERAL APPLICATION REQUIREMENTS

Applicants are strongly encouraged to consult with Commission staff in the early phases of project development in order to help identify low impact sites and site layouts that will minimize impacts on the environment and reduce related mitigation requirements. For a pre-filing review of proposed projects, applicants should submit maps or addresses of potential Development locations and conceptual Development footprint. For projects where the applicant has secured a site, civil plans of existing conditions, including existing vegetation and, where Wetlands are present, a resource area delineation from the local conservation commission, is needed to assist in more detailed review and guidance about what mitigation may be required through the regulatory review process. For projects in later phases of project development, proposed civil plans and a NRI on greenfield sites will allow for more detailed feedback in advance of a formal application filing.

Applicants are required to submit the following as part of their DRI application:

- Natural Resources Inventory (required when project is located on a greenfield site, or is located within a Natural Area – see Wildlife and Plant Habitat Technical Bulletin)
- Calculation of Area of Development Impact
- Open Space Narrative discussing proposal based on Placetype ratio and area of disturbance
- Proposed Method of Permanent Open Space Protection and Conservation Partner, as appropriate

ADDITIONAL RESOURCES

Map Data Layers:

- Cape Cod Commission RPP Data Viewer
(www.capecodcommission.org/RPPDataViewer)

Town Open Space and Recreation Plan

Open Space and Recreation Plans (OSRPs) are a tool through which a community plans for the future of its conservation and recreation resources. Many towns on Cape Cod have recently updated their OSRPs, providing current information on their open space and recreation priorities.

Guidance on Open Space Conservation:

Additional information about Conservation Restrictions, including model language for developing Conservation Restrictions is contained in the Model Conservation Restriction, available through the Executive Office of Energy and Environmental Affairs, Division of Conservation Services <https://www.mass.gov/service-details/conservation-restriction-review-program>

Names of municipal and land trust open space contacts are available from the Cape Cod Commission.