Update of Open Space Policy Guideline Map

MVC - Chris Seidel - Primary Compilation Sep/Oct 2023; spreadsheet last edited 2/8/2024

Data Layer	Source Description	Source URL (if applicable)
Working Farm	MVC 2021 based on feedback from farmers & MassGIS Land Use data & Assessors Chapter 61A Land	Data: https://dukescountygis.maps.arcgis.com/home/item.html?id=4e7eee8e589d49cba492a7cffb7eb2c0#overview
Unfragmented Woodlands over 50 acres	MassGIS LULC 2016 & MVC Geoprocessing 2023	Data: MVC Internal Server: Y:\Cartographic_Production\Project_Files\OpenSpace_Guideline_Update\OS_Guideline_Workspace.gdb -- duk_LULC_2016_Forest_dis_split
Unfragmented Woodlands 10-50 acres	MassGIS LULC 2016 & MVC Geoprocessing 2023	Data: MVC Internal Server: Y:\Cartographic_Production\Project_Files\OpenSpace_Guideline_Update\OS_Guideline_Workspace.gdb -- duk_LULC_2016_Forest_dis_split
Within 200' of wetlands	MVC geoprocessed MassDEP Wetlands (2005) published Dec 2017	Data: MVC and https://www.mass.gov/info-details/massgis-data-massdep-wetlands-2005
Wetlands	MassDEP Wetlands (2005) published Dec 2017	Data: https://www.mass.gov/info-details/massgis-data-massdep-wetlands-2005
Public Well Operational Zone of Influence	MVC 2004 (Bill Wilcox)	Data: MVC's internal server: Y:\Cartographic_Production\Project_Files\OpenSpace_Guideline_Update\OS_Guideline_Data_Storage.gdb -- opinfluence_minus_Zone1
Public Well Zone II	MassDEP Feb. 2023 (modified MVC Sept 2023)	Data: Source: https://www.mass.gov/info-details/massgis-data-massdep-wellhead-protection-areas-zone-ii-zone-i-iwpa; MVC Modified: Y:\Cartographic_Production\Project_Files\OpenSpace_Guideline_Update\OS_Guideline_Workspace.gdb -- duk_ZONE2_POLY_eraseZn1_eraseOpZnInflu
Public Well Zone I	MassDEP Feb. 2023	Data: https://www.mass.gov/info-details/massgis-data-massdep-wellhead-protection-areas-zone-ii-zone-i-iwpa
Within 200ft of Surface Water	MVC geoprocessed MassDEP Dec. 2019 Hydrography dataset	Data: MVC and https://www.mass.gov/info-details/massgis-data-massdep-hydrography-125000
Surface Water > 10 acres	MassDEP Dec. 2019 Hydrography 1:25,000 (minor edits by MVC - see notes)	Data: https://www.mass.gov/info-details/massgis-data-massdep-hydrography-125000

Data Layer	Source Description	Source URL (if applicable)
Supporting Habitat	MassWildlife & TNC Nov. 2022; Modified 9/2023 by MVC	Data: Source: https://www.mass.gov/info-details/massgis-data-biomap-the-future-of-conservation; MVC modified: Y:\Cartographic_Production\Project_Files\OpenSpace_Guideline_Update\OS_Guideline_Workspace.gdb -- BM3_CNL_eraseCoreHabitat
Secondary Vista Viewsheds	2005 MVC Open Space Guideline Secondary Vista Viewsheds - Modified in 2023 by MVC	Data: MVC Internal Server: Y:\Cartographic_Production\Project_Files\OpenSpace_Guideline_Update\OS_Guideline_Workspace.gdb -- scenic_sec_union2cl_2023
Primary Vista Viewsheds	2005 MVC Open Space Guideline Primary Vista Viewsheds - Modified in 2023 by MVC	Data: MVC Internal Server: Y:\Cartographic_Production\Project_Files\OpenSpace_Guideline_Update\OS_Guideline_Workspace.gdb --scenic_sec_union2cl_2023
Prime Agricultural Soil		MassGIS Nov. 2021 from June 2020 Release from NRCS: Data: https://www.mass.gov/info-details/massgis-data-soils-ssurgo-certified-nrcs#downloads-; Methodology by MassGIS: https://www.arcgis.com/home/item.html?id=fb0c108056d5401c852ef4a44932f73c
Watershed of Coastal Pond-Projected to Pass Nitrogen Limit	MVC & SMAST/MEP 2015 (quality rating verified/updated 9/2023)	Data: https://data-dukescountygis.opendata.arcgis.com/datasets/Dukescountygis::major-watersheds-with-coastal-watersheds/about
Watershed of Coastal Pond - at or Beyond Nitrogen Limit	MVC & SMAST/MEP 2015 (quality rating verified/updated 9/2023)	Data: https://data-dukescountygis.opendata.arcgis.com/datasets/Dukescountygis::major-watersheds-with-coastal-watersheds/about
Frost Bottoms	The Nature Conservancy 2005	Data: MVC Internal Server: Y:\Cartographic_Production\Project_Files\OpenSpace_Guideline_Update\OS_Guideline_Data_Storage.gdb -- MV_FrostBottoms
Flood Hazard Area	FEMA Effective as of 2016; 100 Year Flood Zone	Data: FEMA 2016 - Available on MassGIS https://www.mass.gov/info-details/massgis-data-fema-national-flood-hazard-layer

Data Layer	Source Description	Source URL (if applicable)
Cultural Landscape	Cemeteries from 2005 culture_ls created by MVC; Special Places and Special Ways, & Dr. Fisher Road District overlay zones per MVC's most current data file.	Data: MVC Internal Server: Y:\Cartographic_Production\Project_Files\OpenSpace_Guideline_Update\OS_Guideline_Workspace.gdb -- mvi_Cultural_Landsc_dis
1000' from Coast and Navigable Ponds	2021 Coastline/Breakline LiDAR 2021 & MassDEP Dec. 2019 Hydrography 1:25,000	Data: MVC Internal Server: Y:\Cartographic_Production\Project_Files\OpenSpace_Guideline_Update\OS_Guideline_Workspace.gdb -- mvi_Coastline_NaviPonds_1000ftBuf_merged
Core Habitat	MassWildlife & TNC Nov. 2022	Data: https://www.mass.gov/info-details/massgis-data-biomap-the-future-of-conservation
Coastal DCPC	MVC 2011 (with Oak Bluffs update of 2019) - Shore Zone and Inland Zone	Data - 1 feature layer for each town: https://data-dukescountygis.opendata.arcgis.com/search?q=overlay%20zoning%20coastal&type=feature%20layer
Beach	LULC 2016 MassGIS, 2021 Aerial Photo, 2021 Coastline/Breakline LiDAR 2021	Data: MVC Internal Server: Y:\Cartographic_Production\Project_Files\OpenSpace_Guideline_Update\OS_Guideline_Workspace.gdb - mvi_CoastalBeach_2021

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Data Layer	Data Proccessing Notes	2nd version data processing note	2nd version data processing note additional
Working Farm	Source file is: [duk_active_fallow_farms] but filtered for Field_Type = 'A0' Or Field_Type = 'A1' (which are "Active-Hay Production" and "Active-Crop/Livestock")		
Unfragmented Woodlands over 50 acres	Filter original LULC for: COVERNAME = 'Deciduous Forest' Or COVERNAME = 'Evergreen Forest'; Dissolved all polygons but did NOT 'create multipart features'. Then split polys based on MVC Road Class of 4 and 5 and Fire Lanes from Trail_Lines file. Filter result for polys > 50acres.	USEGENNAME = **Open Land** (includes exempt; vacant res, com, indus; open common land use code begins with 2), **Forest** (includes Chapter 61 lands where use code begins with 6 or 06 which is mixed use primarily chapter 61), **Exempt** (includes use code beginning with 9), **Unknown** (no use code)	Query: (COVERNAME = 'Deciduous Forest' Or COVERNAME = 'Evergreen Forest') And (USEGENNAME = 'Forest' Or USEGENNAME = 'Open land' Or USEGENNAME = 'Tax exempt' Or USEGENNAME = 'Unknown'); Ran dissolve to produce **Revised Output file**: duk_LULC_2016_Forest_SelectedUses_dis (has category size attribute: >50acres, & >10 acres and <=50acres)
Unfragmented Woodlands 10-50 acres	Filter original LULC for: COVERNAME = 'Deciduous Forest' Or COVERNAME = 'Evergreen Forest'; Dissolved all polygons but did NOT 'create multipart features'. Then split polys based on MVC Road Class of 4 and 5 and Fire Lanes from Trail_Lines file. Filter result for polys > 10acres and <=50 acres.		
Within 200' of wetlands	MVC buffered MassDEP Wetlands (publ 2017), excluding the ocean, by 200ft (all output polygon boundaries were dissolved).		
Wetlands	Filter to Exclude Ocean Polygon: AREAACRES < 4733813		
Public Well Operational Zone of Influence	No data excluded. Data source cited does not contain the Zone I areas.		
Public Well Zone II	No data excluded; Data source cited (MVC) does not contain Zone I areas or Operational Zone of Influence.		
Public Well Zone I	No data excluded		
Within 200ft of Surface Water	[duk_Hydro25K_Poly_Ponds_gt10ac] polygons were buffered 200ft (all output polygon boundaries were dissolved).		
Surface Water > 10 acres	Pond polys have "Poly_Code" = 6. Some "Poly_Code = 8" which is Ocean, were really ponds. Those Ocean polys were extracted and saved as [duk_Hydro25K_Poly_Ocean_Edit]. That file was edited by the MVC to close off Bays and Harbors (i.e. Cape Poge, Katama Bay, etc). A filter was applied to the orgiginal dataset [duk_Hydro25K_Poly]: POLY_CODE = 6 Or PALIS_ID = 97073 Or (POLY_CODE = 8 And (NAME = 'Lake Tashmoo' Or NAME = 'Caleb Pond')). In this filtered dataset, where "Area" was > 40,468.60sq meters (which is 10 acres) those records were selected. Those selected records and the Edit dataset (excluding the poly named "Ocean") were merged together into [duk_Hydro25K_Poly_Ponds_gt10ac].		

Data Layer	Data Proceessing Notes	2nd version data processing note	2nd version data processing note additional
Supporting Habitat	Data set: BM3_CRITICAL_NATURAL_LANDSCAPE (this is a "compliment to core habitat"); The area of overlap between BioMap Core Habitat and BioMap CNL was removed/erased from this data layer. This methodology matches that of the original 2005 Open Space Guideline Suitability Map analysis.		
Secondary Vista Viewsheds	See notes for Primary Vista. Buffered the new 200ft buffer of the Wtis and Chappy Major Road additions by 300ft (output: scenic_MjrRds_additions_200ftBuf_300ftBuf). Any overlap with Primary Vista (2023 version) and Secondary Vista (2005 version) was removed from the 300ft buffer of the Wtis & Chappy Major Roads. The remainder of the 300ft buffer area was appended to the Secondary Vista (2005 version) to create the updated version for 2023.		
Primary Vista Viewsheds	Filter 2023 Version for: Note_2023 IS NULL Or Note_2023 = 'dig. 2021 photo' Original 2005 dataset (a bespoke MVC product) was a compilation of (a) 200ft buffered road centerline for those in the Island Roads DCPC-Major Roads Zone; (b)buffered road was manually clipped to remove areas of development and appended to to include views of open fields/woodlands/farms; (c) the MassGIS LULC 1999 dataset provided some guidance; (d) results of the 2005 Visual Preference Survey (noted here on page 5: https://mvcommission.org/sites/default/files/docs/Scenic_Roads_of_Martha_s_Viney ard.pdf) influenced the Vista Area viewsheds; (e) other DCPCs/Overlay Zones (related to protecting views) may have influenced the vista delineation. **In 2023**, the original 2005 vista data file (scenic_pri_union2.shp - it's raster version is vistapri_e20r) was reviewed for (a) new areas of development & those were clipped out/removed; (b) new clearings - those were appended; (c) additional Major Roads DCPCs (200ft from centerline) in West Tisbury & Chappaquiddick were appended to the file. New data outpput is --> **scenic_pri_union2_2023** feature class.		
Prime Agricultural Soil	Only using [FRMLNDCLS] = Prime Farmland and Farmland of Statewide Importance. Former is basically Land Capability Class I; latter is Capability Class II & III.		
Watershed of Coastal Pond-Projected to Pass Nitrogen Limit	Only includes those watersheds identified as having "Good" water quality/Nitrogen levels.		
Watershed of Coastal Pond - at or Beyond Nitrogen Limit	Only includes those watersheds identified as having "Compromised" or "Impaired" water quality/Nitrogen levels.		
Frost Bottoms	No data excluded		
Flood Hazard Area	Only includes the 100 Year Flood Zone (AKA: 1% Annual Chance of Flooding) (is the VE and AE Zones). FLD_ZONE = 'AE' Or FLD_ZONE = 'VE'		

Data Layer	Data Proceessing Notes	2nd version data processing note	2nd version data processing note additional
Cultural Landscape	The original version from the 2005 OSGSM included cemeteries, Special Places, Special Ways, and the Dr. Fisher Road District in West Tisbury. Special Ways & Dr. Fisher Road District were buffered 50ft from the edge of the Way's 20ft buffer on each side. The interior of the Way is included within the Cultural Landscape dataset. Only the cemeteries from the original dataset were transferred into the 2023 version. In the 2023 version, the current overlay zoning boundaries (as existed on 10/12/2023) in every town for Special Ways, Special Places, & Dr. Fisher Road District were used to compile this dataset. Special Places and Cemeteries were not buffered (since they weren't buffered in the original version). Only Special Ways & the Dr. Fisher Road District were buffered 50ft.		
1000' from Coast and Navigable Ponds	Buffered 2021 Coastline/Breakline 1000ft. Split poly by breakline to ID seaward vs landward. Selected 'naviagable' ponds based on 2005 OSGMS analysis, buffered those 1000ft. Erased pond buffer that overlapped with 'landward' coastline buffer. IDed remaining pond buffer polys as Landward vs Seaward (only used Landward going forward). Erased Surface Waters > 10 acres from coastline 1000ft buffer. Merged together the remaining Landward polygons of the coastal 1000ft buffer and naviagable ponds 1000ft buffer.		
Core Habitat	Data set: BM3_CORE_HABITAT		
Coastal DCPC	In 2011, the MVC GIS department re-delineated all Coastal DCPC boundaries with the latest data available and reviewed the bounds to ensure that they matched the written description provided in the Town's bylaws. The Oak Bluffs Coastal DCPC was modified in 2019 per the amendment brought before the MVC by the Town. Filter Overlay Zoning for Coastal District: DESCRIBE = 'Coastal District' - one layer for each town.		
Beach	Used the categories of 'Unconsolidated Shore' and 'Bare Land' from LULC 2016 if located along the coastline per 2021 LiDAR elevation data. Where applicable, clipped the 2016 beach data to the 2021 coastline; similarly on-screen digized beach where there was a gap from the seaward edge of the 2016 beach to the 2021 coastline. Full processing notes: Beach_Delineation_for_OSGSM_2023.docx		

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Data Layer	Layer ID in AGOL Feature Layer	Weight	XLS Sort Sequence
Working Farm	0	20	1
Unfragmented Woodlands over 50 acres	1	20	16
Unfragmented Woodlands 10-50 acres	2	4	17
Within 200' of wetlands	3	6	4
Wetlands	4	20	3
Public Well Operational Zone of Influence	5	6	10
Public Well Zone II	6	4	11
Public Well Zone I	7	20	9
Within 200ft of Surface Water	8	6	8
Surface Water > 10 acres	9	20	7

Data Layer	Layer ID in AGOL Feature Layer	Weight	XLS Sort Sequence
Supporting Habitat	10	6	15
Secondary Vista Viewsheds	11	4	20
Primary Vista Viewsheds	12	20	19
Prime Agricultural Soil	13	8	2
Watershed of Coastal Pond-Projected to Pass Nitrogen Limit	14	2	13
Watershed of Coastal Pond - at or Beyond Nitrogen Limit	15	4	12
Frost Bottoms	16	20	18
Flood Hazard Area	17	10	5

Data Layer	Layer ID in AGOL Feature Layer	Weight	XLS Sort Sequence
Cultural Landscape	18	20	21
1000' from Coast and Navigable Ponds	19	6	22
Core Habitat	20	20	14
Coastal DCPC	21	8	6
Beach	22	20	23