

## **AMERY LAND USES - SLAMM**

### **• Residential Land Uses**

High Density Residential without Alleys (HDRNA): Urban single family housing at a density of greater than 6 units/acre. Includes house, driveway, yards, sidewalks, and streets.

Medium Density without Alleys (MDRNA): Same as HDRNA except the density is between 2 - 6 units/acre.

Medium Density with Alleys (MDRWA): Same as MDRNA, except alleys exist behind the houses.

Low Density (LDR): Same as HDRNA except the density is 0.7 to 2 units/acre.

Duplexes (DUP): Housing having two separate units in a single building.

Multiple Family (MFRNA): Housing for three or more families, from 1 - 3 stories in height. Units may be adjoined up-and-down, side-by-side; or front-and-rear. Includes building, yard, parking lot, and driveways.

Trailer Parks (MOBH): A mobile home or trailer park, includes all vehicle homes, the yard, driveway, and office area.

Suburban (SUB): Same as HDRNA except the density is between 0.2 and 0.6 units/acre.

### **• Commercial Land Uses**

Strip Commercial (SCOM): Those buildings for which the primary function involves the sale of goods or services. This category includes some institutional lands found in commercial strips, such as post offices, court houses, and fire and police stations. This category does not include buildings used for the manufacture of goods or warehouses. This land use includes the buildings, parking lots, and streets. This land use does not include nursery, tree farms, or lumber yards.

Shopping Centers (SHOP): Commercial areas where the related parking lot is at least 2.5 times the area of the building roof area. The buildings in this land use are usually surrounded by the parking area. This land use includes the buildings, parking lot, and the streets.

Office Parks (OFPK): Land use where non-retail business takes place. The buildings are usually multi storied buildings surrounded by larger areas of lawn and other landscaping. This land use includes the buildings, lawn, and road areas. Types of establishments that may be in this category includes: insurance offices, government buildings, and company headquarters.

Downtown Central Business District (CDT): Highly impervious downtown areas of commercial and institutional land use.

• **Industrial Land Uses**

Medium Industrial/Manufacturing Industrial (MI): Those buildings and premises which are devoted to the manufacture of products, with many of the operations conducted outside, such as power plants, steel mills, and cement plants. This category includes businesses such as lumber yards, auto salvage yards, junk yards, grain elevators, agricultural coops, oil tank farms, coal and salt storage areas, slaughter houses, and areas for bulk storage of fertilizers.

Light Industrial/Non-Manufacturing (LI): Those buildings which are used for the storage and/or distribution of goods awaiting further processing or sale to retailers. This category mostly includes warehouses, and wholesalers where all operations are conducted indoors, but with truck loading and transfer operations conducted outside.

• **Institutional Land Uses**

Hospitals (HOSP): Medical facilities that provide patient overnight care. Includes nursing homes, state, county, or private facilities. Includes the buildings, grounds, parking lots, and drives.

Institutional/Education (INST): Churches and large areas of institutional property not part of CST and CDT. Includes any public or private primary, secondary, or college educational institutional grounds. Includes buildings, playgrounds, athletic fields, roads, parking lots, and lawn areas.

• **Open Space Land Uses**

Cemeteries (CEM): Includes cemetery grounds, roads, and buildings located on the grounds.

Parks (PARK): Outdoor recreational areas including municipal playgrounds, botanical gardens, arboretums, golf courses, and natural areas.

Undeveloped (OSUD): Lands that are private or publicly owned with no structures and have a complete vegetative cover. This includes vacant lots, transformer stations, radio and TV transmission areas, water towers, and railroad rights-of-way.

## AMERY LAND USES – HYDROCAD

### • Residential Land Uses

High Density Residential without Alleys (HDRNA): Urban single family housing at a density of greater than 6 units/acre. Includes house, driveway, yards, sidewalks, and streets.

Curve Numbers for HDRNA (65% Impervious)				
Hydrologic Soil Group	A	B	C	D
Runoff Curve Number	77	85	90	92

Medium Density without Alleys (MDRNA): Same as HDRNA except the density is between 2 - 6 units/acre.

Curve Numbers for MDRNA (30-38% Impervious)				
Hydrologic Soil Group	A	B	C	D
Runoff Curve Number	59	74	82	87

Medium Density with Alleys (MDRWA): Same as MDRNA, except alleys exist behind the houses.

Curve Numbers for MDRwA (30-38% Impervious)				
Hydrologic Soil Group	A	B	C	D
Runoff Curve Number	59	74	82	87

Low Density (LDR): Same as HRNA except the density is 0.7 to 2 units/acre.

Curve Numbers for LDR (20-25% Impervious)				
Hydrologic Soil Group	A	B	C	D
Runoff Curve Number	53	69	80	85

Duplexes (DUP): Housing having two separate units in a single building.

Curve Numbers for DUP (65% Impervious)				
Hydrologic Soil Group	A	B	C	D
Runoff Curve Number	77	85	90	92

Multiple Family (MFRNA): Housing for three or more families, from 1 - 3 stories in height. Units may be adjoined up-and-down, side-by-side; or front-and-rear. Includes building, yard, parking lot, and driveways.

Curve Numbers for MFRNA (65% Impervious)				
Hydrologic Soil Group	A	B	C	D
Runoff Curve Number	77	85	90	92

Trailer Parks (MOBH): A mobile home or trailer park, includes all vehicle homes, the yard, driveway, and office area.

Curve Numbers for HDRNA (65% Impervious)				
Hydrologic Soil Group	A	B	C	D
Runoff Curve Number	77	85	90	92

Suburban (SUB): Same as HDRNA except the density is between 0.2 and 0.6 units/acre.

Curve Numbers for SUB (12% Impervious)				
Hydrologic Soil Group	A	B	C	D
Runoff Curve Number	46	65	77	82

• **Commercial Land Uses**

Strip Commercial (SCOM): Those buildings for which the primary function involves the sale of goods or services. This category includes some institutional lands found in commercial strips, such as post offices, court houses, and fire and police stations. This category does not include buildings used for the manufacture of goods or warehouses. This land use includes the buildings, parking lots, and streets. This land use does not include nursery, tree farms, or lumber yards.

Shopping Centers (SHOP): Commercial areas where the related parking lot is at least 2.5 times the area of the building roof area. The buildings in this land use are usually surrounded by the parking area. This land use includes the buildings, parking lot, and the streets.

Office Parks (OFPK): Land use where non-retail business takes place. The buildings are usually multi storied buildings surrounded by larger areas of lawn and other landscaping. This land use includes the buildings, lawn, and road areas. Types of establishments that may be in this category includes: insurance offices, government buildings, and company headquarters.

Downtown Central Business District (CDT): Highly impervious downtown areas of commercial and institutional land use.

Curve Numbers for SCOM/SHOP/OFPK/CDT (85% Impervious)				
Hydrologic Soil Group	A	B	C	D
Runoff Curve Number	89	92	94	95

• **Industrial Land Uses**

Medium Industrial/Manufacturing Industrial (MI): Those buildings and premises which are devoted to the manufacture of products, with many of the operations conducted outside, such as power plants, steel mills, and cement plants. This category includes businesses such as lumber yards, auto salvage yards, junk yards, grain elevators, agricultural coops, oil tank farms, coal and salt storage areas, slaughter houses, and areas for bulk storage of fertilizers.

Light Industrial/Non-Manufacturing (LI): Those buildings which are used for the storage and/or distribution of goods awaiting further processing or sale to retailers. This category mostly includes warehouses, and wholesalers where all operations are conducted indoors, but with truck loading and transfer operations conducted outside.

Curve Numbers for MI/LI (85% Impervious)				
Hydrologic Soil Group	A	B	C	D
Runoff Curve Number	81	88	91	93

• **Institutional Land Uses**

Hospitals (HOSP): Medical facilities that provide patient overnight care. Includes nursing homes, state, county, or private facilities. Includes the buildings, grounds, parking lots, and drives.

Institutional/Education (INST): Churches and large areas of institutional property not part of CST and CDT. Includes any public or private primary, secondary, or college educational institutional grounds. Includes buildings, playgrounds, athletic fields, roads, parking lots, and lawn areas.

Curve Numbers for HOSP/INST (85% Impervious)				
Hydrologic Soil Group	A	B	C	D
Runoff Curve Number	89	92	94	95

• **Open Space Land Uses**

Cemeteries (CEM): Includes cemetery grounds, roads, and buildings located on the grounds.

Parks (PARK): Outdoor recreational areas including municipal playgrounds, botanical gardens, arboretums, golf courses, and natural areas.

Curve Numbers for CEM/PARK (Grass cover > 75%)				
Hydrologic Soil Group	A	B	C	D
Runoff Curve Number	39	61	74	80

Undeveloped (OSUD): Lands that are private or publicly owned with no structures and have a complete vegetative cover. This includes vacant lots, transformer stations, radio and TV transmission areas, water towers, and railroad rights-of-way.

Curve Numbers for OSUD (Grass cover > 75%)				
Hydrologic Soil Group	A	B	C	D
Runoff Curve Number	39	61	74	80

OSUD – based on grasslands – this is consistent with the SLAMM Modeling approach - Below is the land uses that are contained in this group and their corresponding curve numbers. This is for reference and shows the basis for use of the above curve numbers. However, undeveloped for the SLAMM Model is far less specific for this land use than what is used for the HydroCad Model.

Maximum Pre-Development Runoff Curve Numbers for Cropland Areas				
Hydrologic Soil Group	A	B	C	D
Runoff Curve Number	56	70	79	83

Curve Numbers for Woods/Grass Combination (Good Condition)				
Hydrologic Soil Group	A	B	C	D
Runoff Curve Number	32	58	72	79

Curve Numbers for Woods (Good Condition)				
Hydrologic Soil Group	A	B	C	D
Runoff Curve Number	30	55	70	77

Curve Numbers for Meadow (Good Condition)				
Hydrologic Soil Group	A	B	C	D
Runoff Curve Number	30	58	71	78

Curve Numbers for Brush (Good Condition)				
Hydrologic Soil Group	A	B	C	D
Runoff Curve Number	30	48	65	73