Verbatim Input Received from LUWG Topics Request:

MDE:

1. Development of a spatially explicit final watershed model land-use (as opposed to tabular).
2. Increased spatial specificity/detail, especially in the urban sector (in addition to increased accuracy) (i.e., differentiation between commercial, industrial, institutional, residential uses, or connected vs. disconnected imperviousness, or high intensity vs. low/medium intensity, etc., etc.)

Verbatim Preliminary Input from WQGIT Request on 2017 Midpoint Assessment:

Land Use Characterization Priorities (State and Federal Agencies)

MD (Collective):

Landuse Inputs

- Develop a spatially explicit landuse dataset. We need to move past the tabular data.
- Better incorporation of local jurisdiction information (both land-use and impervious data)
- Reviewing available acres – counties/agencies are submitted BMPs based on "real" acres but in some instances there aren't enough available "model" acres, limiting our crediting ability.
    - Particular BMPs affected: nutrient management, forest buffers, wetland restoration, grass buffers, pasture fencing
- Agriculture misclassified on federal lands (urban on Ag Federal Lands)
    - Refine federal lands to more accurately discriminate the agricultural land (e.g. Harford County)
- Urban land uses need to be divided into more specific categories: commercial, industrial, high density residential, median density residential, low density residential, etc. similar to what agricultural land has, reducing urban loadings.
    - Need to differentiate between connected and disconnected impervious
- Improved spatial delineation of agricultural lands
    - Misclassifications with turf grass, forest, etc.
- Improved spatial specificity of agricultural lands
    - Ag. lands by specific crop type
- Example of disagreement:
    - Model 5.3.2 = 1.52 mil acres agricultural land in Maryland (pasture, cropland, hayland)
    - MDA Nutrient Management = 1.2 mil acres
    - 20% more acres of loads (300,000 acres)
    - Report Nutrient Management Implementation on actual acres or model acres?

VA (Collective):

General

- Improve Resolution
- Improve Federal Land Use
- Add Wetlands Land Use
- Rework HOM Land Use
- Do Not Treat Nutrient Management as a Land Use Change BMP

- Reevaluate Septic System Numbers
    - Commercial/Retail Systems
    - Mass Drain Fields
    - Failing Septic Systems (Surficial Runoff Loading)
    - Straight Pipes (Direct Discharges)
- Reevaluate the REX/NEX Land Uses
- Reevaluate Representation of Construction Activities
- Improve Animal Distribution (Sub-county)
- Develop a GIS Polygon Coverage Map with Final Land Use
- Use Local Land Use to Ground Truth Classification Methodology
- Improve Methods for Estimation of Growth In Urban Areas
    - Changes to Imperviousness.
- Reevaluate CSO/CSS Land Uses

WV (Collective):

Urban Land Use

- Refine urban land use extent.

DoD:

Federal Land Use Characterization

- Federal land use assumptions in the model must be corrected to ensure the data accurately reflects current land use. We understand the WQGIT has formed a Land Use Workgroup to assist in this effort. DoD provided a representative to participate. We hope through our participation in this workgroup the federal land use assumptions in the model will be rectified.

Land Use Characterization Priorities (Workgroup, Local Government, and Non-Agency Comments)

USWG:

Characterization of Pervious and Impervious Area: Current and Future (Baltimore/Expert Panel/COG).

- The model fails to adequately differentiate between different classifications of urban land use (Baltimore County and various others, including Norm Goulet)
    - Low-density and high-density urban areas have the same loading rates, despite different hydrologic characteristics (Balt. County)
    - Norm Goulet stated during the latest USWG call that this issue is a high priority
- Part of the increase in urban loads between versions of the Phase 5 model resulted from new methodologies to estimate impervious/pervious lands in rural, suburban/exurban areas; the loads from these areas are not necessarily equal to urban areas even though the model assumes they are, and this could be a potential improvement in the Phase 6 model (COG)
- Land use change BMPs, while helpful for modeling, complicate understanding the available land acreage for planning and implementation. BMP efficiencies are much easier to conceptualize (PA)
- This work needs to occur before or at least in tandem with examination of methods for finer-scale differentiation of urban land use by the new CBP Land Use Workgroup, since there would appear to be no value in parsing among classes of urban land that all load at the same rates (COG)

- Re-examination of the basic setting of N, P and TSS loading rates/calibration process for urban pervious and impervious land use in the watershed model (several folks).
- Land use distribution issues: more urban land than is represented by local data (BC).
- Land use loading issues: no differentiation between low density and high density loading rates; low density urban has many features that mimic ESD, disconnected impervious, sheet flow to buffers, etc. There should be differential loading rates for these categories (BC).
- Urban tree canopy effects need to be included in the model (BC).

Better Characterization of Federal Lands in the Model

- Federal lands can be refined in the next phase of the model (HRPDC)

Verification and Ground "Truthing" of Model Land Use Projection

- Annual growth predictions from the Bay Model are used for offset analysis and there are new verification procedures for BMP implementation; will there be verification procedures to ground-truth the model's prediction of growth?

WTWG:

Land change modeling (DE)

- Delaware is pleased a land use workgroup is being formed to help ensure that appropriate local data and resources are considered in both current and projected future land use and population (septic vs sewer) data sets.

HRPDC

Designate Wetlands as Land Use Category

- The current land use framework tracks wetlands under the forest category. This causes confusion and suspicion that the wetland loading rates do not reflect the capacity of wetlands to reduce the quantity of runoff and reduce nutrient and sediment loads. The Watershed model should be revised to track wetlands as a separate land use category with an appropriate loading rate.