Summary of Land Use Suggestions from Climate Resiliency Workgroup (CRWG)

During the CRWG November 18, 2019 meeting, members provided suggestions on the land use classes/subclasses or potential overlay of data from a climate adaptation/resiliency perspective. The list below summarizes ideas discussed during the meeting:

- **Mitigation Tracking**
  - Subclass of rooftop area to assess potential solar panel installation within communities
    - Can detect roofs with imagery, but not whether there is already solar installed (green roofs also difficult to detect)
  - Forest loss from burning
    - National dataset shows burnt areas 10-20 acres in size (updated annually)
- **Adaptation/Resiliency Tracking**
  - Identify other shoreline types (e.g., hardened versus natural)
    - Target climate resiliency efforts with green infrastructure
    - Link with oyster restoration work (map data would be needed as imagery affected by glare to detect oyster reefs)
  - Include a non-tidal wetland subclass
    - Extent of non-tidal wetlands are not well resolved and typically underestimated
  - Track change in wetland area over time for different types of wetlands (forest, shrub, grass)
    - Has different implications from a climate resiliency standpoint (e.g., buffering against flooding and erosion control from wave energy/extreme weather events)
  - Identify areas that would allow marsh/wetland migration
    - Could compare with different land gradients (flat ag lands versus steep cliffs)
- **Community Impacts**
  - Include areas prone to flash flooding
    - Separate flooding layers due to precipitation versus tidal
    - May overlap with FIRM maps
    - MEMA may have impact data
    - Regional NGOs (e.g., Wetlands Watch) are using citizen science to record and geo-locate areas of high tide/nuisance tide flooding
    - Overlay flash points with inland water conveyance systems (i.e., natural streams, rivers, underground storm/combined sewers, overland) to assess impact of extreme precipitation events on nutrient and sediment pollution as well as other types (e.g., petroleum, toxics)
    - Could use elevation to help pinpoint potential communities at risk
  - Identify where substations and transformers are located especially where sea level rise is likely because this could affect electrical suppliers and disrupt distribution to consumers
    - Imagery resolution not fine enough to do this, but could compare sea level map layer with point data
  - Hazardous/toxic storage as risk from sea level rise/flooding
    - Point data would be needed (may be difficult to obtain due to security sensitivities)