

## Appendix E.5: GIS methods specific to future impervious surface calculation

### Create Setback

- GIS Erase difference land and Analysis Units to identify water - *AUWater*
- GIS Intersect *AUWater* and Shoreline Buildout parcels to determine overlap - *AUWaterSB*
- Calculate new field in *AUWaterSB* for setback (in feet) per designation
- Buffer *AUWaterSB* polygons by setback – *AUWaterSB\_buffer*

### Apply Setback *AUWaterSB\_buffer* to Shoreline Buildout and AU Groups

- For Shoreline and AU Groups GIS Erase setback to create new files and add new field to recalculate acreages taking into account setback

### Combine Setback Shoreline Buildout to NLCD Imperviousness

- GIS Identify to combine Shoreline Buildout to NLCD Imperviousness – *ShorelineBuildoutNLCDIdentify*

### Combine *ShorelineBuildoutNLCDIdentify* to AU Groups

- GIS Identify to combine AU Groups to *ShorelineBuildoutNLCDIdentify* – *GroupsShorelineBuildoutNLCDIdentify*
- Recalculate acreage of Impervious acres per area
- Calculate SBMaxLot which is the Setback Shoreline Buildout Acres multiplied by the Maximum Lot Coverage per designation
- Calculate SBDifImp which is the difference between the Maximum acres of Shoreline Buildout and impervious cover in Shoreline Buildout
- Calculate PercSBDeve which is the percentage of developable land in the shoreline buildout area.