Option 1: Shift the federal crop and pasture acres from federal agency types to their corresponding counties.

Pros:

- Respects the accuracy of mapped land use data
- Doesn't require agricultural BMP reporting for the 30-year period 1985-2015 from each agency with reported (or assigned) federal agricultural land by the end of December, 2016 (preferably mid-December).
- Doesn't require the assignment of 100+ crop types and 12 animal types to federal agricultural land – varying over the 30-year calibration period – according to the distribution in the relevant county. This is needed to determine application rates and timing for manure, chemical fertilizer, and bio-solids nutrients.
- Doesn't require the assumption that all of the federal ag land is leased by operators, e.g., none is privately owned.
- Doesn't increase the run-time for optimizing BMPs in planning scenarios from 1 day to about a week – for all stakeholders using CAST for developing Milestones and Watershed Implementation Plans.

Cons:

- Federal agencies would not have agricultural loads specifically assigned to them in the model output even if they have agricultural land. Federal BMPs on federal ag could be reported and tracked (e.g., acres), but the associated load reductions are part of the county load reductions.
- Federal agency type acreages would be reduced by the corresponding extent of federal agriculture. The reduced acreage would be held constant over the watershed model calibration period, 1984 – 2015.

Option 2: Maintain federal crop and pasture acres within the federal agency type footprint.

Pros:

- Federal agency types can report agricultural BMP's directly for their acreages of crop and pasture

Cons:

- Federal agency types need to report agricultural BMP's directly for their acreages of crop and pasture for the 30-year period 1985-2015 by the end of December, 2016 (preferably mid-December). The default is that there will be no BMPs on federal ag in the model for the past 30 year period.
- Federal ag will need to be assigned 100+ crop types and 12 animal types – varying over the 30-year calibration period – according to the distribution in the relevant county. This is necessary to determine application rates and timing for manure, chemical fertilizer, and bio-solids nutrients. The simulation of agricultural conditions and loads in the Chesapeake Bay models has never gone finer than the spatial scale of full counties.
- An assumption will be that all of the assigned federal ag land is leased by operators, e.g., none is privately owned.
- The inclusion of federal ag explicitly will increase the run-time for optimizing BMPs in planning scenarios from 1 day to about a week – for all stakeholders using CAST for developing Milestones and Watershed Implementation Plans.

Option 3: Shift federal crop and pasture acres to turf grass within federal agency types.

Pros:

- The mapped federal agency type footprint is respected and maintained. No change to CBPO algorithms or code would be required.
- Doesn't require agricultural BMP reporting for the 30-year period 1985-2015 from each agency with reported (or assigned) federal agricultural land by the end of December, 2016 (preferably mid-December).
- Doesn't require the assignment of 100+ crop types and 12 animal types to federal agricultural land – varying over the 30-year calibration period – according to the distribution in the relevant county. This is needed to determine application rates and timing for manure, chemical fertilizer, and bio-solids nutrients.
- Doesn't require the assumption that all of the federal ag land is leased by operators, e.g., none is privately owned.
- Doesn't increase the run-time for optimizing BMPs in planning scenarios from 1 day to about a week – for all stakeholders using CAST for developing Milestones and Watershed Implementation Plans.

Cons:

- The extent of agriculture in a county would be slightly underestimated and federal agencies with agriculture may not be held explicitly accountable for the management of agricultural operations within their property boundaries.

Note 1: These options mention "federal agency types" which refer to the agreed on grouping of federal facilities used for BMP and land use reporting purposes. For example, the Department of Defense (DOD) is one agency type. Acreages of each simulated land use are lumped for all DOD facilities within a modeling segment (intersect of counties with watersheds). Entries to the Federal Facility Editor Tool are made by facility, e.g., Naval Air Station, and will be mapped to that facility footprint. For input to the watershed model, however, the data for each simulated land use for all DOD facilities in a modeling segment are be combined.

Note 2: While Options 1 and 3 do not assign agriculture directly on federally owned land. There are options outside of the model that can assist with determining federal facilities' fair share of the agricultural load, where applicable (i.e. federal facilities with ag).

There continues to be an understanding that federal facility targets will be revised. These targets could incorporate the fair share of federal ag load and other loads which are responsible for nutrient and sediment reductions. All BMPs can continue to be reported to the Jurisdictions. While federal facilities won't get credit in the "model" as load reductions, they would be able to receive numeric credit through other types of targets. Federal facilities would receive "programmatic" credit in the model for their efforts--but the overall reductions would be accounted for in . Local buy-in will be necessary in the development of Phase III WIPs; therefore, Bay Jurisdictions will be targeting efforts and resources to accelerate implementation progress. Local governments and federal facilities, including DoD installations, are considered integral to this process. With the development of local area planning goals by the States, the portion of the federal responsibility will be known and may provide an opportunity for more local partnering efforts.