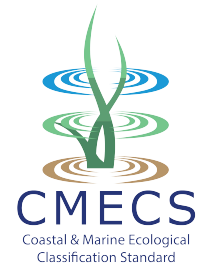


# COASTAL AND MARINE ECOLOGICAL CLASSIFICATION STANDARD (CMECS)



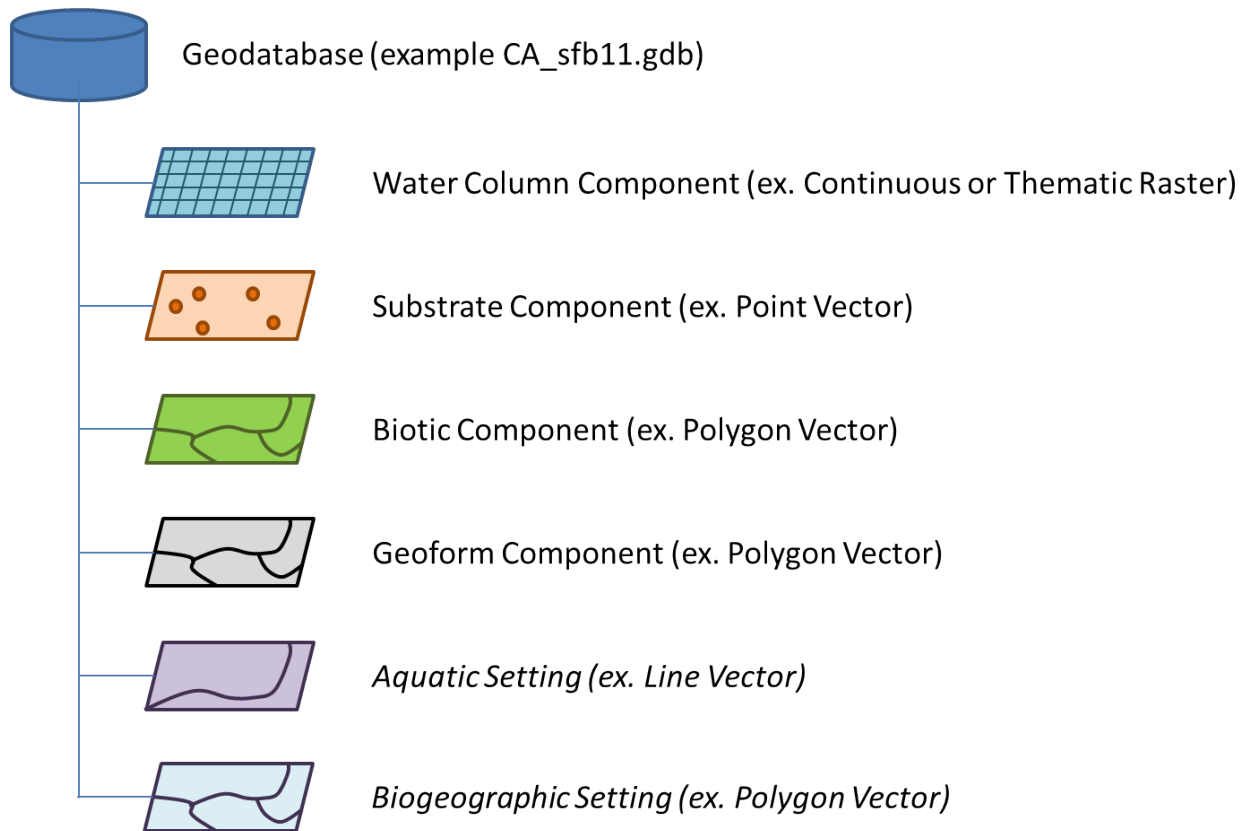
## Proposed CMECS Data Structure Native Data Format: ESRI File Geodatabase

July 2015

<https://iocm.noaa.gov/cmecs/index.html>

<https://my.usgs.gov/confluence/display/CMECSIG/CMECS+Community+Forum+Home>

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## Feature Layer Organization

### *Recommendations*

1. There may be more than one feature layer per component. For example, the geodatabase may contain a substrate polygon vector layer developed from interpreting backscatter imagery, a substrate point vector layer representing sediment grabs, and a continuous or thematic substrate raster based on interpolation from the grabs.
2. Modifiers will be added as attributes to the appropriate feature layers.
3. Modifiers may be used for more than one feature layer. For example, Temporal Persistence can be a modifier for both biotic and geofom units.
4. If modifiers are used to develop a separate map such as a rugosity map, they would be additional feature layers.
5. Biogeographic Setting can be a separate feature layer if appropriate (such as in cases where a project crosses the boundary between two units). In most cases it could be the first of the CMECS unit attributes of any component feature layer attribute table.
6. Aquatic Setting can be a separate layer if data are sufficiently comprehensive over the project area to allow this. In cases where this information is not comprehensive, it can precede the CMECS component unit attributes in that component feature layer.
7. Feature layers will be named by component and then any other relevant characteristic. For example, "Geoform \_30m" to describe a geofom layer with 30-meter resolution.

Note – There is no need to create a feature layer for a component that wasn't part of your project.

## Attribute Table General Structure

### *Recommendations*

1. CMECS hierarchy/unit fields (setting, class, subclass, etc.) will follow spatial/temporal reference fields (ID, Perimeter, Shape Area, Latitude/Longitude, Date, Time etc.)
2. CMECS Code will be the first CMECS field, allowing the subsequent CMECS unit fields to be as many or as few as needed.
3. Modifier fields will follow the CMECS unit fields. There can be as many as needed, and no specific order is recommended.
4. CMECS unit fields will be string fields of 254 characters, allowing long unit names and flexibility for new units.
5. The CMECS code field will also be a string field allowing use of alphabetic characters if needed.
6. Non-CMECS modifiers and other descriptors will follow any CMECS modifier fields and can be any data structure needed (string, single/double precision, float, etc.).