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To: [James Lindstrom](#); [Ed Turner](#)
Subject: Draft Model Builder prototype for today's meeting
Date: Wednesday, February 25, 2015 10:58:35 AM
Attachments: [GrSG Status Review Team ModelBuilder Acreage Calculations Prototype Flowchart.docx](#)

To go over today.

FYI Kate and Drue

Lara

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GrSG Status Review Team ModelBuilder Acreage Calculations Prototype Flowchart

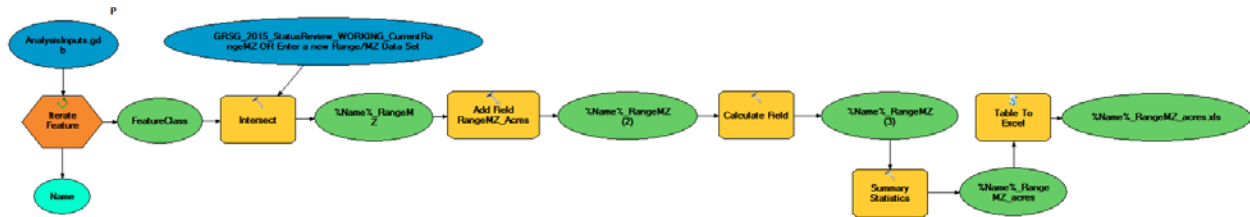
What we need to produce and likely will need to produce:

1. Acreage calculations for various input polygons (e.g., mine footprints, transmission line footprints) by:
 - a. Current Range (“GRSG_2015_StatusReview_WORKING_CurrentRangeMZ” range boundaries may change) by Management zone (should be a static boundaries). Note, bi-state acreages not included in working current rangeMZ data set.
 - b. PAC (“GRSG_2015_USFWS_StatusReview_PACs” may change with integration of IPAs, etc.) by Management zone. “ Note, bi-state polygons are included, but can be teased out by attribute
 - c. IPAs (“GRSG_2015_USFWS_StatusReview_IPAs” may at some point be integrated into the PACs, but can also be calculated as a stand-alone data set)
 - d. Population (“GRSG_2015_USFWS_StatusReview_Populations” may change) by Management zone. Note, bi-state polygons are included, but can be teased out by attribute
 - e. Abundance and Distribution model polygons
 - f. Any of these may be required to be further broken down by State
 - g. Any of these may be required to be further broken down by surface ownership/SMA
2. Maps
 - a. Various maps as requested by Species Report chapter authors

ModelBuilder Functionality Flowchart – Current Range by MZ Portion

1. Input Polygons (IPs): These will be provided by pointing the tool to a file geodatabase, example “AnalysisInputs.gdb”. All feature classes in the FGDB will be iterated through providing unique output for each FC. Example: MiningInputs.gdb, includes FCs CoalFootprint and NonCoalFootprint.
2. Current Range FC is a Parameter in the model, so that it can be easily changed to a new dataset. For any new Range FC provided, attributes must include:
 1. “Mgmt_zones”
 2. “Name”
 3. “Bi_State”
3. Output Range by MZ Polygons and Acreage Spreadsheets:
 - a. Intersect IPs with “GRSG_2015_StatusReview_WORKING_CurrentRangeMZ”. This will be the default, but this function will be a parameter function, allowing the user to point to a new current range data set.
 - b. New polygons will be: %Name%_RangeMZ, with Name = the name(s) of the input FCs. Examples: CoalFootprint_RangeMZ and NonCoalFootprint_RangeMZ
 - c. These will have a new table added by MB called “RangeMZ_Acres”

- d. Acreages will be calculated to this new field, and summarized based on MZ
- e. New acreages tables will be created for each FC. Examples:
CoalFootprint_RangeMZ_acres.xls and NonCoalFootprint_RangeMZ_acres.xls.



ModelBuilder Functionality Flowchart – PACs by MZ

1. Input Polygons (IPs) are the same FC provided in the original input .gdb.
2. PACs FC is a Parameter in the model, so that it can be easily changed to a new dataset. For any new PAC FC provided, attributes must include:
 1. "MgmtZone"
 2. "Population"
 3. "Bi_State"
3. Output PACs by MZ Polygons and Acreage Spreadsheets:
- 4.