

BAYFAST-2017


Watershed Technical Workgroup

August 3, 2017

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IMPETUS

- Federal Facilities were asked to display leadership in achieving the 2010 Bay TMDL (Executive Order 13508 Strategy for Protecting and Restoring the Chesapeake Bay Watershed)
- Federal facilities needed a smaller parcel than a county or modeling segment
- Land use was inconsistent with the federal facility planning scale
- Users
 - Federal Facilities
 - Local TMDL plans
 - River keepers and other watershed groups
 - NFWF proposal applicants

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Federal Facility Milestone Targets

Milestone Targets

Federal facilities are developing 2016-2017 Milestones toward meeting the 2010 Chesapeake Bay TMDL for nitrogen, phosphorus and sediment. A Protocol was developed in 2015 to describe the process for setting targets. State-specific methodology is in the Appendix of the Protocol. The nitrogen, phosphorus and sediment targets are made available in spreadsheets by state. Maryland provides a baseline and target load as well as the percent reduction. Other states are provided with the pounds per acre per year that are to be reduced as well as the percent reduction required to meet the 2017 target.

In BayFAST, create two scenarios to show that you are achieving the reductions. First create a baseline scenario of the BMPs currently implemented. Then create a separate scenario that is your plan for 2017. The 2017 scenario should have the current BMPs plus any additional BMPs that you will need to implement. Using Compare Scenarios, you can see the load for the current and 2017 scenario as well as the percent reduction. To determine if you reduced the targeted amount, subtract the baseline load from the 2017 plan. Alternatively, look at the percent reduction to see if you met the target.

- [Federal Targets Protocol](#)
- [Federal Facilities Targets for NY, PA, WV, and DC](#)
- [Maryland Federal Interim Targets Default Data with Agencies](#)
- [Maryland Federal Interim Targets Facility with Submitted Data with Agencies](#)
- [Federal Facility Targets for VA](#)

If you do not have land use information, you can estimate from a map using [this tool](#). Draw a polygon around the land area, like the impervious land, and the tool provides the acres. You can then enter that into BayFAST on the land use spreadsheet after you defined your facility. If you have more precise sources of information, please use those.

Progress Reporting Templates

Federal facilities reporting BMP implementation toward meeting the Chesapeake Bay TMDL are encouraged to use the template specific to each state when reporting. Data are reported to each state, who then merges data from federal facilities and multiple other sources for reporting to the Chesapeake Bay Program.

Any questions on annual progress reporting should be directed to Matthew Johnson at mjohnston@chesapeakebay.net or 410-267-5707 or the state representatives listed here: [Tracking and Reporting Leads and Contact Information by Jurisdiction](#).

Templates:

- [District of Columbia](#)
- [Delaware](#)
- [Maryland](#)
- [New York](#)
- [Pennsylvania](#)
- [Virginia](#)
- [West Virginia](#)

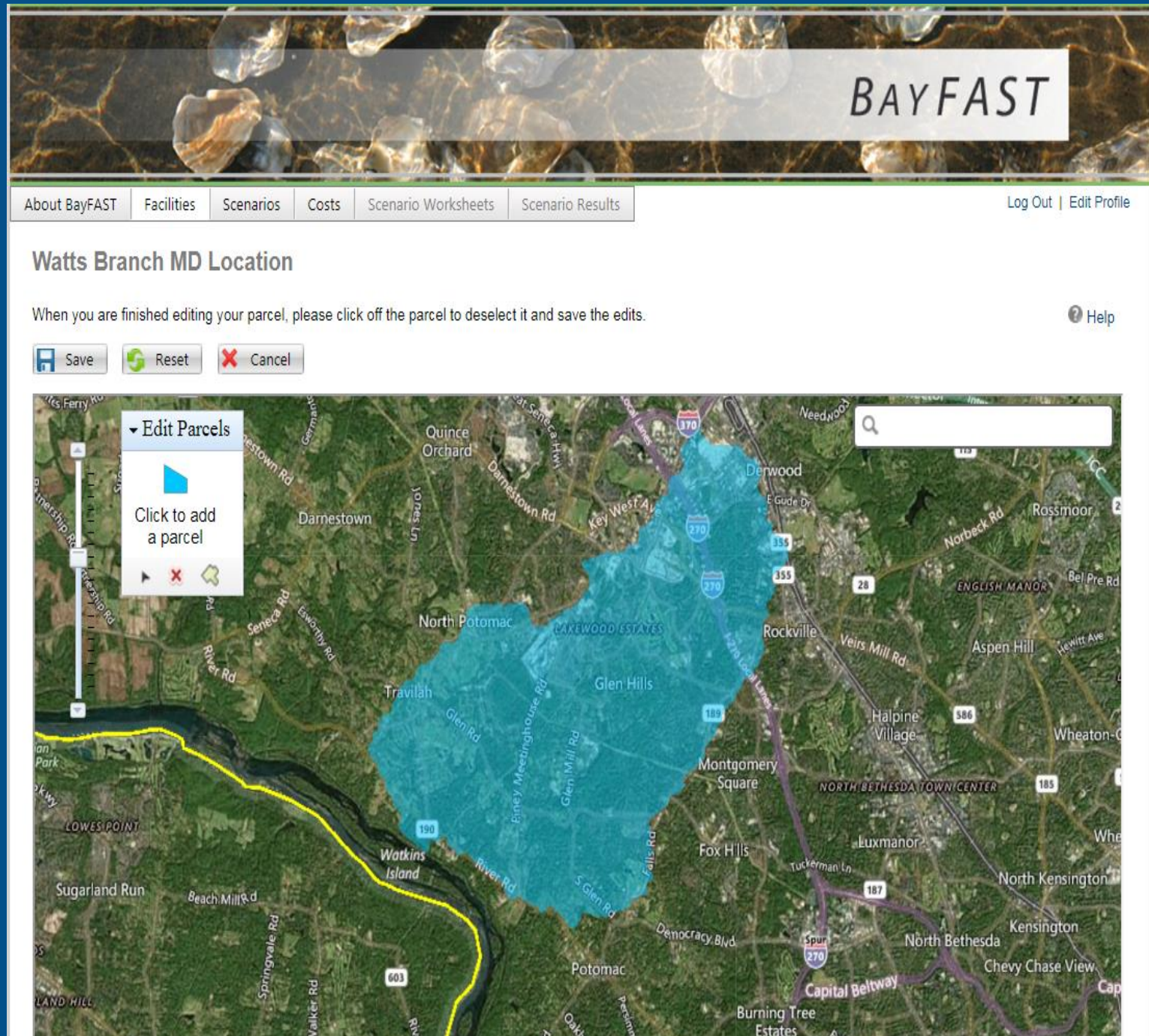
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BAYFAST IN PHASE 6—DECISION ITEMS

- Terminology—Parcel instead of Facility
- Agency—Is it needed for BayFAST-2017?
- Default Base Conditions

FACILITY OR PARCEL?

- Since BayFAST was originally developed for federal facilities, the term “facility” was used to denote the area drawn or selected.
- “Parcel” may be a more accurate and broadly understood term.



AGENCIES

- Federal facilities now have Agency Types in CAST-2017 and no longer depend exclusively on BayFAST.
- Including agencies in BayFAST: (a) Select (or draw) an area; (b) define the load source area for 47 load sources * 12 agencies = 564 data to enter.


- Federal

1. Agricultural Research Service
2. Department of Defense
3. General Services Administration
4. National Aeronautics and Space Administration
5. National Park Service
6. Other Federal Land
7. Smithsonian Institution
8. US Fish and Wildlife Service
9. US Forest Service

- Non-federal

10. Non-Federal
11. MD State
12. MD State Highway Administration

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Watts Branch MD Initial Conditions

Urban Land Uses

| | |
|-----------------------------------|----------|
| regulated pervious developed | 7484.494 |
| nonregulated pervious developed | 0.000 |
| regulated impervious developed | 2454.268 |
| nonregulated impervious developed | 0.000 |
| regulated construction | 205.223 |
| regulated extractive | 36.367 |
| nonregulated extractive | 0.000 |
| CSS pervious developed | 0.000 |
| CSS impervious developed | 0.000 |
| CSS construction | 0.000 |
| CSS extractive | 0.000 |

Agricultural Land Uses

| | |
|--|---------|
| animal feeding operations | 0.434 |
| concentrated animal feeding operations | 0.000 |
| hightill with manure | 207.484 |
| hightill without manure | 7.154 |
| hay with nutrients | 52.992 |
| hay without nutrients | 27.357 |
| alfalfa | 2.644 |
| pasture | 45.900 |
| degraded riparian pasture | 0.178 |
| nursery | 2.440 |

Forest Land Uses

| | |
|------------------|----------|
| forest | 3203.806 |
| harvested forest | 32.362 |

Water Land Use

| | |
|-------|---------|
| water | 489.815 |
|-------|---------|

Total Acres 14252.918

[Download Land Use](#)

Septic Systems

| | |
|--------------------------------------|---------|
| Critical Area | 0 |
| Within 1000 ft of a perennial stream | 458.557 |
| Other | 813.605 |

Population on Septic

| | |
|----------------------------|----------|
| Total Population on Septic | 3443.743 |
|----------------------------|----------|

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DEFAULT CONDITIONS

- Map shows ESRI satellite imagery with labels.
- The load source, septics, and animal numbers are returned as defaults from the high resolution land cover.
- Users edit, and could enter illogical data.
 - No animals but keep feeding space
 - Keep animals but zero out feeding space
- Should we put limits on what users enter? Or is it an educational process for users with good documentation and “contact us” resources.
- Do we keep 10 crop types and 4 pasture types? Or lump together into crop or pasture to decrease the number of agricultural load sources.

BAYFAST

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DECISIONS

- Terminology
 - Parcel instead of Facility
- Agency
 - Is it needed for BayFAST-2017?
- Default Base Conditions
 - Bound user entries for agricultural data
 - Land Uses—10 crop types and 4 pasture types? Or 1-crop and 1-pasture to decrease the number of agricultural load sources.