

BAYFAST-2017

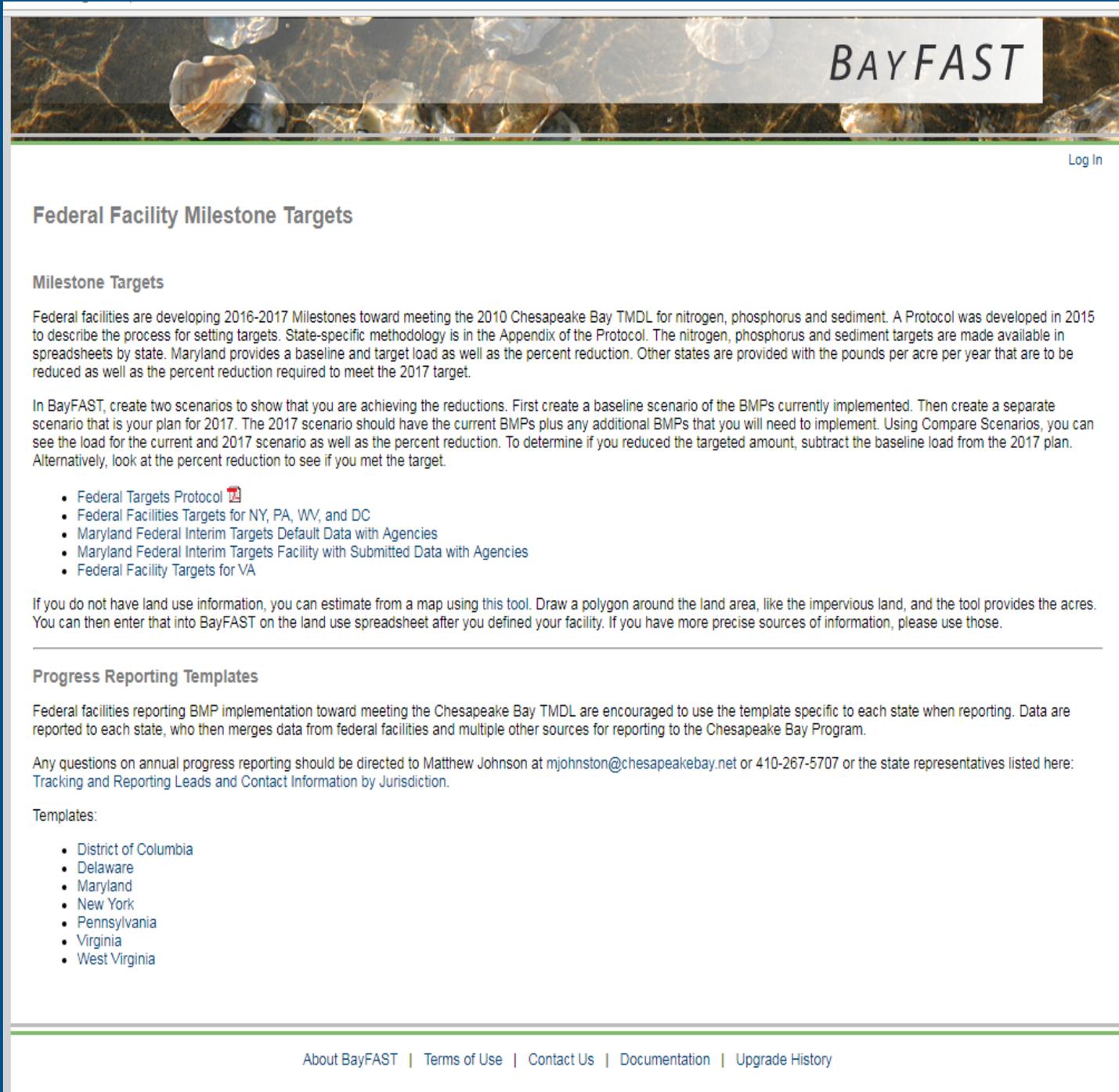
Watershed Technical Workgroup

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



BAYFAST Log In

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.

The screenshot displays the BayFAST web application interface. At the top, the header reads "BAYFAST" in a large, white, serif font against a background of water with ice cubes. Below the header is a navigation menu with links for "About BayFAST", "Facilities", "Scenarios", "Costs", "Scenario Worksheets", and "Scenario Results". On the right side of the menu, there are links for "Log Out" and "Edit Profile".

The main content area is titled "Watts Branch MD Location". Below the title, a message states: "When you are finished editing your parcel, please click off the parcel to deselect it and save the edits." To the right of this message is a "Help" icon. Below the message are three buttons: "Save" (with a floppy disk icon), "Reset" (with a circular arrow icon), and "Cancel" (with a red 'X' icon).

The central part of the interface is a satellite map of the area around Rockville, MD. A large, irregularly shaped area is highlighted in a semi-transparent blue color, representing a selected parcel. A white pop-up window titled "Edit Parcels" is overlaid on the map, containing a blue square icon and the text "Click to add a parcel". The map shows various roads, including the Capital Beltway (I-495) and several local roads like Darnestown Rd, Key West Ave, and Veirs Mill Rd. The Potomac River is visible on the left side of the map.

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

- Agricultural Research Service
- Department of Defense
- General Services Administration
- National Aeronautics and Space Administration
- National Park Service
- Other Federal Land
- Smithsonian Institution
- US Fish and Wildlife Service
- US Forest Service

- Non-federal

- Non-Federal
- MD State
- MD State Highway Administration

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BAYFAST

About BayFAST | Facilities | Scenarios | Costs | Scenario Worksheets | Scenario Results | Log Out | Edit Profile

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

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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Watts Branch MD Initial Conditions

[Help](#)

Urban Land Uses	Agricultural Land Uses	Forest Land Uses
regulated pervious developed: 7484.494	animal feeding operations: 0.434	forest: 3203.806
nonregulated pervious developed: 0.000	concentrated animal feeding operations: 0.000	harvested forest: 32.362
regulated impervious developed: 2454.268	hightill with manure: 207.484	
nonregulated impervious developed: 0.000	hightill without manure: 7.154	Water Land Use
regulated construction: 205.223	hay with nutrients: 52.992	water: 489.815
regulated extractive: 36.367	hay without nutrients: 27.357	
nonregulated extractive: 0.000	alfalfa: 2.644	
CSS pervious developed: 0.000	pasture: 45.900	
CSS impervious developed: 0.000	degraded riparian pasture: 0.178	
CSS construction: 0.000	nursery: 2.440	
CSS extractive: 0.000		Total Acres 14252.918

[Download Land Use](#)

Septic Systems	Population on Septic
Critical Area: 0	Total Population on Septic: 3443.743
Within 1000 ft of a perennial stream: 458.557	
Other: 813.605	

Save Reset

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.