Appendix B

BAY RESTORATION (SEPTIC) FUND (BRF)
FINAL - PROGRAM IMPLEMENTATION GUIDANCE FOR FY 2015
(Annotated Code of MD §9-1605.2 & COMAR 26.03.13)
FOR ON-SITE SEWAGE DISPOSAL SYSTEM (OSDS) UPGRADES USING BEST AVAILABLE TECHNOLOGY (BAT) FOR NITROGEN REMOVAL

I. Prioritization

The **"grant recipients"** (local government, health department, others, who are awarded BRF septic funds by the Board of Public Works) should prioritize applications for financial assistance as follows:

1. Failing OSDS in the Critical Areas
2. Failing OSDS outside the Critical Areas
3. Non-Conforming OSDS in the Critical Areas
4. Non-conforming OSDS outside the Critical Areas
5. Other OSDS in the Critical Areas, including new construction
6. Other OSDS outside the Critical Areas, including new construction

II. Income Based Grant Eligibility

Grant assistance should be based on the following Income Criteria:

	% Eligibility
Homeowners (may include homes under a housing cooperative)	
1. Household income less than or equal to $300,000/year	100%
2. Household income more than $300,000/year	50%
Non-profit Entities (including governmental entities)	100%
For-profit Businesses	50%

III. Eligible Projects for Bay Restoration (Septic) Fund Grant Funding

Based on the above prioritization, the BRF grant funding may be used for any **one** of the following eligible project options:

1. The cost attributable to upgrading an existing OSDS to BAT for nitrogen removal (*most funding requests will fall under this category)*.

2. The cost differential* between a conventional OSDS and one that utilizes BAT for Nitrogen Removal for new construction.

** For "cost differential" purposes on new construction, use a statewide average cost of $1,200 as the cost of a traditional septic tank. Maximum BRF grant = (BAT Cost - $1,200) x % eligibility (based on income in Section II)*

3. The cost, up to the sum of the cost of each "individual BAT system", of replacing multiple OSDS located in the same community with a new community system that is owned by a local government and meets Enhanced Nutrient Removal Standards *(MDE prior approval required)*.

4. The cost, up to the sum of the cost of each "individual OSDS system using BAT", to connect properties to an existing municipal biological or enhanced nutrient removal wastewater treatment plant *(MDE prior approval required.)* Use the Tables below to see if a project meets the statutory requirements.

Connecting OSDS (located outside Priority Funding Areas) to a Wastewater Treatment Plant

Q1. Are BRF grant funds available to connect OSDS to sewers based on "prioritization" criteria (Item I above)? (For a community of several OSDS, the at least 50% OSDS must fall within the qualifying priority criteria)
No – STOP. *BRF Septic grant funds are not available for sewer connection.*
Yes

Q2. Is the proposed sewer connection to a BNR or ENR Wastewater Treatment Plant?
No – STOP. *BRF Septic Funds cannot be used for the sewer connection.*
Yes

Q3. Is the Environmental Impact of the OSDS documented by the local government?
No – STOP. *BRF Septic Funds cannot be used for the sewer connection.*
Yes (Submit to MDE with proposal)

Q4. Is the sewer connection more cost-effective than the cost of repairing or replacing the OSDS with BAT? Example: For an OSDS community with say 50 homes, is the sewer connection cost less than $1 million? (50 x $20,000 average cost repairing or replacing an OSDS with BAT). **Yes, go to Q6 (skip Q5); No, go to Q5.**

Q5. Is individual replacement of the OSDS not feasible? Example: For an OSDS community with say 50 homes, can Environmental Health Director certify that the individual replacement on more than 50% of existing OSDS is not feasible OR County rules do not allow replacements due to availability of public sewerage?
No - STOP. *BRF Septic Funds cannot be used for the sewer connection.*
Yes.

Q6. Is the proposed sewer connection consistent with the County Comprehensive Plan and Water/Sewer Plan?
No – STOP. *BRF Septic Funds cannot be used for the sewer connection.*
Yes

Q7. Are the OSDS proposed for sewer connection located outside County Priority Funding Areas?
No – STOP. [*Use other checklist for connecting OSDS (located inside Priority Funding Areas) to a Wastewater Treatment Plant*]
Yes

Q8. Is the OSDS proposed for sewer connections specifically identified in the County W/S plan as an area of "public health concern" or has the County environmental health director "certified" this as an area of public health concern with the intent to incorporate this in the W/S plan at a later date?
No - STOP. *BRF Septic Funds cannot be used for the sewer connection.*

Yes
Addition information must be provided to MDE to determine if a PFA exception is warranted, which should include: public health issues; potential future in-fill development; mitigation measures proposed to limit growth; net nitrogen reduction after accounting for maximum future in-fill development. **If a PFA exception is approved by the "smart growth coordinating committee", the sewer connection project can be funded with BRF Septic grant funds. Special grant conditions regarding denied access to sewer main, limits on maximum new in-fill development etc. will apply. Details on how to determine maximum eligible BRF grant amount is shown below (bottom of next page).**

Connecting OSDS (located inside Priority Funding Areas) to a Wastewater Treatment Plant

Q1. Are BRF grant funds available to connect OSDS to sewers based on "prioritization" criteria (Item I above)? (For a community of several OSDS, the at least 50% OSDS must fall within the qualifying priority criteria)
No – STOP. *BRF Septic grant funds are not available for sewer connection.*
Yes
Q2. Is the proposed sewer connection to a BNR or ENR Wastewater Treatment Plant?
No – STOP. *BRF Septic Funds cannot be used for the sewer connection.*
Yes
Q3. Is the Environmental Impact of the OSDS documented by the local government?
No – STOP. *BRF Septic Funds cannot be used for the sewer connection.*
Yes (Submit to MDE with proposal)
Q4. Is the sewer connection more cost-effective than the cost of repairing or replacing the OSDS with BAT? Example: For an OSDS community with say 50 homes, is the sewer connection cost less than $1 million? (50 x $20,000 average cost repairing or replacing an OSDS with BAT). **Yes, go to Q6; No, go to Q5.**
Q5. Is individual replacement of the OSDS not feasible? Example: For an OSDS community with say 50 homes, can Environmental Health Director certify that the individual replacement on more than 50% of existing OSDS is not feasible OR County rules do not allow replacements due to availability of public sewerage?
No - STOP. *BRF Septic Funds cannot be used for the sewer connection.*
Yes.
Q6. Is the proposed sewer connection consistent with the County Comprehensive Plan and Water/Sewer Plan?
No – STOP. *BRF Septic Funds cannot be used for the sewer connection.*
Yes
Q7. Are the OSDS proposed for sewer connection located inside the County Priority Funding Areas?
No – STOP. [*Use other checklist for connecting OSDS (located outside Priority Funding Areas) to a Wastewater Treatment Plant*]
Yes

The sewer connection project can be funded with BRF Septic grant funds. Details on how to determine maximum eligible BRF grant amount is shown below.

The maximum BRF grant amount is the **lesser of** the prorated[1] sewer connection Project Cost[2] or the amount calculated in (A) or (B) below:

A. # of OSDS units (existing as of 10/1/2008) x $20,000 (cost of a complete OSDS with BAT) x 50% (Minimum Income Based % eligibility); or

B. Added together… for each OSDS unit (existing as of 10/1/2008) x $20,000 (cost of a complete OSDS with BAT) x % eligibility for each OSDS owner based on the Income criteria under Section II above

1. Prorated Cost (Max) = $\frac{\text{Project Cost x \# OSDS (existing as of 10/1/08) x Wt. \% eligibility (income based)}}{\text{Total \# OSDS (including future in-fill that may share the sewer system)}}$

or

Prorated Cost (Min) = $\frac{\text{Project Cost x \# OSDS (existing as of 10/1/08) x 50\% eligibility (minimum)}}{\text{Total \# OSDS (including future in-fill that may share the sewer system)}}$

2. Project Cost includes cost of sewerage system design & construction, including connection fees for the purchase of capacity at the existing BNR/ENR wastewater treatment plant.

5. If BRF funds are available after allocating funds for "BAT" upgrades under Section III - 1 & 2, to all applicants (irrespective of income), the grant funds may also be provided for the repair or replacement of Non-BAT components (e.g., drainfields) for a "low income" household applicant with a "failing" OSDS (this option is not available to businesses or non-profit entities). At least three bids are required for the non-BAT components and one bid can be from the vendor providing the BAT system. The current low-income (DHR energy assistance program) eligibility criteria* is:

Income Eligibility Limits Effective July 1, 2013 – June 30, 2014 (to be updated)		
Household Size	**Maximum Gross Monthly Income Standards**	**Maximum Gross Yearly Income Standards**
1	$1,675.62	$20,107.50
2	$2,261.87	$27,142.50
3	$2,848,12	$34,177.50
4	$3,434,37	$41,212.50
5	$4,020.62	$48,247.50
6	$4,606.87	$55,282.50
For each additional, person add	$586.25	$7,035.00

* See web link for updates: http://www.dhr.state.md.us/blog/?page_id=4334

Grant allowable BAT Cost: Includes the capital cost of BAT plus the cost of 5-years of operations and maintenance (O&M), performed by a certified service provider at a minimum of once per year or the minimum frequency recommended by the manufacturer **(This O&M funding is not applicable to BRF grant funded projects under categories "3" and "4" above.)**

IV. MDE Approved BAT for Nitrogen Removal

1. Ranking of BAT Systems: Consistent with HB 347 (2011 Session), effective June 1, 2011, and every 2-years thereafter, MDE is required to provide on its website an Evaluation and Ranking of all best available nitrogen removal technologies for on-site sewage disposal systems. The evaluation will include for each BAT technology:

- Total Nitrogen Reduction
- Total cost including Operation, Maintenance and Electricity
- Cost per pound of Nitrogen Reduction

As the BRF grant recipient, you MUST provide a copy of this MDE evaluation/ranking (Enclosed: HB347 Ranking Aug-12.pdf) to all BAT grant applicants (i.e., homeowners, businesses that apply for BAT grant funding), so that they can make an informed decision in selecting a BAT system.

For updates, the MDE web link is:
http://www.mde.state.md.us/programs/Water/BayRestorationFund/OnsiteDisposalSystems/Documents/HB347%20Ranking%20data%20Aug-12.pdf

2. Lowest Cost per Pound of Nitrogen Removal BAT: To simplify the procurement process MDE undertook an Invitation for Bids in 2013, from the field-verified BAT technology vendors/manufacturers: Bio-Microbics, Hoot, Norweco, Orenco, and Septitech. For Bay Restoration Fund BAT procurement purposes, MDE selected the following fixed unit price BAT by Region based on the lowest cost per pound of nitrogen removal, adjusted for 12-month inflation (Feb 2013 – Feb 2014) @ 1.13%, increase over FY 2014:

Vendor (in ranking order based on Cost/Lbs Nitrogen Reduction) **CENTRAL Region Counties:** Anne Arundel, Baltimore, Carroll, Cecil, Harford, Howard & Montgomery	Cost/Lbs Nitrogen Reduction Comparison Ranking	BAT System	**FY 2014 Unit Price/BAT**	Contact	Phone
Maryland Concrete, Inc	1	Bio-Microbic (RetroFast) *	**$10,219**	Rodney Glace	443-491-3598
Atlantic Solutions, Ltd. (a)	2	Orenco (Advantex AX20)	**$12,844**	Robert Johnson	877-214-9283
Mayer Brothers, Inc.	3	Hoot (BNR)	**$12,559**	Nancy Mayer	410-796-1434
Price to Match by other field-verified vendors (cost/lb equivalent)			**Match Price**		
Back River Pre-Cast, LLC (b)	4	Norweco (Singular TNT)	**$10,794**	Matt Geckle	410-833-3394
Maryland Concrete, Inc.	5	Septitech (M400)	**$13,148**	Rodney Glace	443-491-3598

(a). Orenco (Advantex AX20RT), if necessary – Match Price: $14,915

(b). Norweco (Singular Green), if necessary - Match Price: $10,919

* RetroFast BAT unit suitable for up to 3-bedroom home and less than 4 occupants.

Vendor (in ranking order based on Cost/Lbs Nitrogen Reduction) **EASTERN Region Counties:** Caroline, Dorchester, Kent, Queen Anne's, Somerset, Talbot, Wicomico & Worcester.	Cost/Lbs Nitrogen Reduction Comparison Ranking	BAT System	**FY 2014 Unit Price/BAT**	Contact	Phone
Gillespie and Son, Inc.	1	Bio-Microbic (RetroFast) *	**$ 9,714**	James Gillespie	410-778-0900
Atlantic Solutions, Ltd. (c)	2	Orenco (Advantex AX20)	**$13,197**	Robert Johnson	877-214-9283
Towers Concrete Products (d)	3	Norweco (Singular TNT)	**$10,738**	John Short	443-786-**0594**
Price to Match by other field-verified vendors (cost/lb equivalent)			**Match Price**		
Mayer Brothers, Inc.	4	Hoot (BNR)	**$12,495**	Nancy Mayer	410-796-1434
Gillespie and Son, Inc.	5	Septitech (M400)	**$13,081**	James Gillespie	410-778-0900

(c). Orenco (Advantex AX20RT), if necessary – Match Price: $14,838

(d). Norweco (Singular Green), if necessary - Match Price: Same as Singular TNT above

* RetroFast BAT unit suitable for up to 3-bedroom home and less than 4 occupants.

Vendor (in ranking order based on Cost/Lbs Nitrogen Reduction) **SOUTHERN Region Counties:** Calvert, Charles, Prince George's & St. Mary's	Cost/Lbs Nitrogen Reduction Comparison Ranking	BAT System	**FY 2014 Unit Price/BAT**	Contact	Phone
Maryland Concrete, Inc.	1	Bio-Microbic (RetroFast) *	**$10,219**	Rodney Glace	443-491-3598
Atlantic Solutions, Ltd. (e)	2	Orenco (Advantex AX20)	**$12,945**	Robert Johnson	877-214-9283
Superior Tank, Inc. (f)	3	Norweco (Singular TNT)	**$10,821**	Jeffrey Earnshaw	301-274-3772
Price to Match by other field-verified vendors (cost/lb equivalent)			**Match Price**		
Mayer Brothers, Inc.	4	Hoot (BNR)	**$12,592**	Nancy Mayer	410-796-1434
Maryland Concrete, Inc.	5	Septitech (M400)	**$13,182**	Rodney Glace	443-491-3598

(e). Orenco (Advantex AX20RT), if necessary – Match Price: $14,952

(f). Norweco (Singular Green), if necessary - Match Price: Same as Singular TNT above

* RetroFast BAT unit suitable for up to 3-bedroom home and less than 4 occupants.

Vendor (in ranking order based on Cost/Lbs Nitrogen Reduction) **WESTERN Region Counties:** Allegany, Frederick, Garrett & Washington	Cost/Lbs Nitrogen Reduction Comparison Ranking	BAT System	**FY 2014 Unit Price/BAT**	Contact	Phone
Maryland Concrete, Inc.	1	Bio-Microbic (RetroFast) *	**$10,219**	Rodney Glace	443-491-3598
Atlantic Solutions, Ltd. (g)	2	Orenco (Advantex AX20)	**$13,956**	Robert Johnson	877-214-9283
Mayer Brothers, Inc.	3	Hoot (BNR)	**$13,065**	Nancy Mayer	410-796-1434
Price to Match by other field-verified vendors (cost/lb equivalent)			**Match Price**		
Maryland Concrete, Inc.	4	Septitech (M400)	**$13,678**	Rodney Glace	443-491-3598
C.R. Semler (h)	5	Norweco (Singular TNT)	**$11,227**	Charles Semler	301-416-0414

(g). Orenco (Advantex AX20RT), if necessary – Match Price: $15,514

(h). Norweco (Singular Green), if necessary - Match Price: Same as Singular TNT above

* RetroFast BAT unit suitable for up to 3-bedroom home and less than 4 occupants.

Unit Price/BAT includes 5-year O&M and MD sales tax (which must be paid, unless BAT unit owner is a sales tax exempt public entity). The price does not include the cost of permits. Future year prices will be adjusted based on 12-month CPI published by the US-DOL, Bureau of Labor Statistics and any MD sales tax changes.

V. Grant Recipient BAT Selection, Procurement and Price

To allow flexibility, the grant recipients (local government, health department etc.) who were awarded the BRF funds by the Board of Public Works) may use the following procurement options for homeowners/businesses to select a BAT technology:

1. Homeowner/business chooses one of the higher ranking (Cost/Lb nitrogen reduction) MDE selected/procured BAT system identified by Region in Section IV-(2) above. The maximum grant allowable cost will be the fixed BAT unit price. No further local procurement action is needed.

2. Homeowner/business chooses a lower ranking (Cost/Lb nitrogen reduction) BAT, the maximum BRF grant allowable amount is the "Match Price" based on an equivalent cost per pound of nitrogen reduction calculated using the cost per pound conversion factor of the lowest ranking MDE selected fixed price vendor by Region, as the benchmark. This "Match Price" for the low ranking (non-selected) field verified vendors is also shown in Section IV-(2) above. The vendor can either offer the BAT for the Match Price or the homeowner/business can pay for the price difference. Similar Match Prices may be extrapolated for any new field verified vendors that are approved over time *(contact MDE for assistance.)*

3. The grant recipient undertakes a local procurement for the unit cost of the BAT installed, including 5-year O&M based on selection factors such as price, nitrogen reduction efficiency, electrical cost etc. The maximum BRF grant allowable cost will be the fixed unit price provided by the selected BAT vendor for that County.

In cases where the BRF grant is funding low income drainfields, at least three bids/price proposals should be sought from installers and the grant eligibility will be limited to the lowest price. This supporting documentation should be included with the payment request to MDE.

In cases where a "composite" tank in lieu of a concrete tank is necessary, the recipient may negotiate a reasonable cost change order with the selected BAT vendor. This supporting documentation, along with the justification of composite tank, should be included with the payment request to MDE.

Note: BRF grant payment should be made directly to the BAT vendor/installer and not to the homeowner/business applicant.