<u>Trash Free Waters Program Benefiting Communities in the</u> **Gulf Coast**

RESTORE Council Proposal Document

General Information

Title:

Trash Free Waters Program Benefiting Communities in the Gulf Coast

Project Abstract:

EPA's 2026 FPL project proposal is for a Trash Free Waters (TFW) Program which will benefit coastal communities across the five Gulf Coast states. Working together with all five Gulf state partners, EPA will develop competitive funding opportunities to prevent, remove, and/or recycle/upcycle trash from waters that drain to the Gulf coast and that also support each state's specific needs. Eligible projects will include prevention activities (sustainable replacement products, waste lifecycle, environmental stewardship), removal activities (in-situ trash capture devices, cleanup events, incentivized disposal), and/or circularity and life cycle activities or planning to provide positive outcomes at larger scale (generation to disposal). In addition to the \$9M requested from the 2026 FPL, EPA will provide \$10M in co-funding and hopes to include \$1M from returned funds of closed RESTORE Interagency Agreements (IAAs) for a total budget of \$20M. EPA intends to award \$4M in grants per Gulf state with estimated project periods of up to 3 years. Additional lead time will be needed for the IAA and program establishment and for the IAA closeout after grants end. Estimated benefits are reducing pollutants such as trash from water bodies that flow to the Gulf, thereby improving water quality, and positively impacting ecosystems and local economies. TFW projects have proven records of diverting or recycling tens of thousands of pounds of trash, preventing future litter by community engagement, and informing future stewards of the environment.

FPL Category: Cat1: Implementation Only

Activity Type: Program

Program: Trash Free Waters Program Benefiting Communities in the Gulf Coast

Co-sponsoring Agency(ies):

TX

LA

MS

AL

FL

Is this a construction project?: No

RESTORE Act Priority Criteria:

- (I) Projects that are projected to make the greatest contribution to restoring and protecting the natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches, and coastal wetlands of the Gulf Coast region, without regard to geographic location within the Gulf Coast region.
- (II) Large-scale projects and programs that are projected to substantially contribute to restoring and protecting the natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches, and coastal wetlands of the Gulf Coast ecosystem.

Priority Criteria Justification:

- (I) This was selected for this program because all communities and waterbodies across the Gulf coast are impacted by common and visible pollutants such as litter, trash and marine debris. Stormwater runoff from metropolitan and suburban environments concentrate these pollutants into tributaries of other water bodies which eventually impact communities downstream and into the Gulf. These pollutants negatively impact a community's ability to adapt to natural disasters and damage fragile ecosystems. If these pollutants can be captured and more importantly prevented from strategic locations, large scale protection and restoration of natural resources can be achieved at both the active sites and all the way downstream to the Gulf. Prevention through community engagement is the cornerstone of the TFW program as this provides sustainability long after projects end.
- (II) This was also selected for this program because of the wide-scale impacts of these pollutants, as noted above, and because this program would be implemented across the Gulf. EPA intends to leverage experience and activities at other trash free and marine debris projects to provide far reaching impacts on land as well as in fresh, brackish, and marine water. Scaling up Trash Free Waters activities with a focus on sustaining long term will make this a successful large-scale program.

Project Duration (in years): 7

<u>Goals</u>

Primary Comprehensive Plan Goal: Restore Water Quality and Quantity

Primary Comprehensive Plan Objective: Restore, Improve, and Protect Water Resources

Secondary Comprehensive Plan Objectives: Promote Natural Resource Stewardship and Environmental Awareness

Secondary Comprehensive Plan Goals: N/A

PF Restoration Technique(s):

Promote natural resource stewardship and environmental awareness: Promote natural resource

stewardship and environmental awareness

Reduce excess nutrients and other pollutants to watersheds: Stormwater management

Location

Location:

All coastal counties within RESTORE boundary are eligible. Locations will be determined once projects are selected via competitive funding opportunities, but they are anticipated to be spread equally among the five Gulf states benefitting coastal communities.

HUC8 Watershed(s):

South Atlantic-Gulf Region(Choctawhatchee-Escambia) - Florida Panhandle Coastal(Perdido Bay)

South Atlantic-Gulf Region(Choctawhatchee-Escambia) - Choctawhatchee(Upper Choctawhatchee)

South Atlantic-Gulf Region(Choctawhatchee-Escambia) - Escambia(Upper Conecuh)

South Atlantic-Gulf Region(Choctawhatchee-Escambia) - Escambia(Patsaliga)

South Atlantic-Gulf Region(Choctawhatchee-Escambia) - Escambia(Sepulga)

South Atlantic-Gulf Region(Choctawhatchee-Escambia) - Escambia(Lower Conecuh)

South Atlantic-Gulf Region(Alabama) - Coosa-Tallapoosa(Middle Coosa)

South Atlantic-Gulf Region(Alabama) - Coosa-Tallapoosa(Lower Coosa)

South Atlantic-Gulf Region(Alabama) - Coosa-Tallapoosa(Middle Tallapoosa)

South Atlantic-Gulf Region(Alabama) - Coosa-Tallapoosa(Lower Tallapoosa)

South Atlantic-Gulf Region(Alabama) - Alabama(Upper Alabama)

South Atlantic-Gulf Region(Alabama) - Alabama(Cahaba)

South Atlantic-Gulf Region(Alabama) - Alabama(Middle Alabama)

South Atlantic-Gulf Region(Alabama) - Alabama(Lower Alabama)

South Atlantic-Gulf Region(Mobile-Tombigbee) - Black Warrior-Tombigbee(Luxapallila)

South Atlantic-Gulf Region(Mobile-Tombigbee) - Black Warrior-Tombigbee(Sipsey)

South Atlantic-Gulf Region(Mobile-Tombigbee) - Black Warrior-Tombigbee(Mulberry)

South Atlantic-Gulf Region(Mobile-Tombigbee) - Black Warrior-Tombigbee(Sipsey Fork)

South Atlantic-Gulf Region(Mobile-Tombigbee) - Black Warrior-Tombigbee(Locust)

South Atlantic-Gulf Region(Mobile-Tombigbee) - Black Warrior-Tombigbee(Upper Black Warrior)

South Atlantic-Gulf Region(Mobile-Tombigbee) - Black Warrior-Tombigbee(Lower Black Warrior)

South Atlantic-Gulf Region(Mobile-Tombigbee) - Mobile Bay-Tombigbee(Middle

Tombigbee-Chickasaw)

South Atlantic-Gulf Region(Mobile-Tombigbee) - Mobile Bay-Tombigbee(Lower Tombigbee)

South Atlantic-Gulf Region(Mobile-Tombigbee) - Mobile Bay-Tombigbee(Mobile-Tensaw)

South Atlantic-Gulf Region(Mobile-Tombigbee) - Mobile Bay-Tombigbee(Mobile Bay)

South Atlantic-Gulf Region(Choctawhatchee-Escambia) - Florida Panhandle Coastal(Perdido)

South Atlantic-Gulf Region(Mobile-Tombigbee) - Black Warrior-Tombigbee(Middle

Tombigbee-Lubbub)

South Atlantic-Gulf Region(Mobile-Tombigbee) - Black Warrior-Tombigbee(Noxubee)

South Atlantic-Gulf Region(Pascagoula) - Pascagoula(Upper Chickasawhay)

Texas-Gulf Region(Sabine) - Sabine(Upper Sabine)

Texas-Gulf Region(Sabine) - Sabine(Middle Sabine)

Texas-Gulf Region(Sabine) - Sabine(Lake Fork)

Texas-Gulf Region(Neches) - Neches(Upper Neches)

```
Texas-Gulf Region(Neches) - Neches(Middle Neches)
Texas-Gulf Region(Neches) - Neches(Lower Neches)
Texas-Gulf Region(Neches) - Neches(Upper Angelina)
Texas-Gulf Region(Neches) - Neches(Lower Angelina)
Texas-Gulf Region(Neches) - Neches(Village)
Texas-Gulf Region(Neches) - Neches(Pine Island Bayou)
Texas-Gulf Region(Trinity) - Upper Trinity(Upper West Fork Trinity)
Texas-Gulf Region(Trinity) - Upper Trinity(Lower West Fork Trinity)
Texas-Gulf Region(Trinity) - Upper Trinity(Elm Fork Trinity)
Texas-Gulf Region(Trinity) - Upper Trinity(Denton)
Texas-Gulf Region(Trinity) - Upper Trinity(Upper Trinity)
Texas-Gulf Region(Trinity) - Upper Trinity(East Fork Trinity)
Texas-Gulf Region(Trinity) - Upper Trinity(Cedar)
Texas-Gulf Region(Trinity) - Upper Trinity(Richland)
Texas-Gulf Region(Trinity) - Upper Trinity(Chambers)
Texas-Gulf Region(Trinity) - Lower Trinity(Lower Trinity-Tehuacana)
Texas-Gulf Region(Trinity) - Lower Trinity(Lower Trinity-Kickapoo)
Texas-Gulf Region(Trinity) - Lower Trinity(Lower Trinity)
Texas-Gulf Region(Galveston Bay-San Jacinto) - San Jacinto(West Fork San Jacinto)
Texas-Gulf Region(Galveston Bay-San Jacinto) - San Jacinto(Spring)
Texas-Gulf Region(Galveston Bay-San Jacinto) - San Jacinto(East Fork San Jacinto)
Texas-Gulf Region(Galveston Bay-San Jacinto) - San Jacinto(Buffalo-San Jacinto)
Texas-Gulf Region(Galveston Bay-San Jacinto) - Galveston Bay-Sabine Lake(East Galveston
Texas-Gulf Region(Galveston Bay-San Jacinto) - Galveston Bay-Sabine Lake(North Galveston
Texas-Gulf Region(Galveston Bay-San Jacinto) - Galveston Bay-Sabine Lake(West Galveston
Texas-Gulf Region(Galveston Bay-San Jacinto) - Galveston Bay-Sabine Lake(Austin-Oyster)
Texas-Gulf Region(Brazos Headwaters) - Brazos Headwaters(North Fork Double Mountain Fork
Brazos)
Texas-Gulf Region(Brazos Headwaters) - Brazos Headwaters(Double Mountain Fork Brazos)
Texas-Gulf Region(Brazos Headwaters) - Brazos Headwaters(White)
Texas-Gulf Region(Brazos Headwaters) - Brazos Headwaters(Salt Fork Brazos)
Texas-Gulf Region(Middle Brazos) - Middle Brazos-Clear Fork(Middle Brazos-Millers)
Texas-Gulf Region(Middle Brazos) - Middle Brazos-Clear Fork(Upper Clear Fork Brazos)
Texas-Gulf Region(Middle Brazos) - Middle Brazos-Clear Fork(Paint)
Texas-Gulf Region(Middle Brazos) - Middle Brazos-Clear Fork(Lower Clear Fork Brazos)
Texas-Gulf Region(Middle Brazos) - Middle Brazos-Clear Fork(Hubbard)
Texas-Gulf Region(Middle Brazos) - Middle Brazos-Bosque(Middle Brazos-Palo Pinto)
Texas-Gulf Region(Middle Brazos) - Middle Brazos-Bosque(Middle Brazos-Lake Whitney)
Texas-Gulf Region(Middle Brazos) - Middle Brazos-Bosque(Bosque)
Texas-Gulf Region(Middle Brazos) - Middle Brazos-Bosque(North Bosque)
Texas-Gulf Region(Lower Brazos) - Lower Brazos(Lower Brazos-Little Brazos)
Texas-Gulf Region(Lower Brazos) - Lower Brazos(Yegua)
Texas-Gulf Region(Lower Brazos) - Lower Brazos(Navasota)
Texas-Gulf Region(Lower Brazos) - Lower Brazos(Lower Brazos)
Texas-Gulf Region(Lower Brazos) - Little(Leon)
Texas-Gulf Region(Lower Brazos) - Little(Cowhouse)
```

```
Texas-Gulf Region(Lower Brazos) - Little(Lampasas)
Texas-Gulf Region(Lower Brazos) - Little(Little)
Texas-Gulf Region(Lower Brazos) - Little(San Gabriel)
Texas-Gulf Region(Upper Colorado) - Upper Colorado(Colorado Headwaters)
Texas-Gulf Region(Upper Colorado) - Upper Colorado(Johnson Draw)
Texas-Gulf Region(Upper Colorado) - Upper Colorado(Beals)
Texas-Gulf Region(Upper Colorado) - Upper Colorado(Upper Colorado)
Texas-Gulf Region(Lower Colorado-San Bernard Coastal) - Middle Colorado-Concho(Middle
Colorado-Elm)
Texas-Gulf Region(Lower Colorado-San Bernard Coastal) - Middle Colorado-Concho(South
Concho)
Texas-Gulf Region(Lower Colorado-San Bernard Coastal) - Middle Colorado-Concho(Middle
Concho)
Texas-Gulf Region(Lower Colorado-San Bernard Coastal) - Middle Colorado-Concho(North
Concho)
Texas-Gulf Region(Lower Colorado-San Bernard Coastal) - Middle Colorado-Concho(Concho)
Texas-Gulf Region(Lower Colorado-San Bernard Coastal) - Middle Colorado-Concho(Middle
Colorado)
Texas-Gulf Region(Lower Colorado-San Bernard Coastal) - Middle Colorado-Concho(Pecan
Texas-Gulf Region(Lower Colorado-San Bernard Coastal) - Middle Colorado-Concho(Jim Ned)
Texas-Gulf Region(Lower Colorado-San Bernard Coastal) - Middle Colorado-Concho(San
Saba)
Texas-Gulf Region(Lower Colorado-San Bernard Coastal) - Middle Colorado-Concho(Brady)
Texas-Gulf Region(Lower Colorado-San Bernard Coastal) - Middle
Colorado-Llano(Buchanan-Lyndon B. Johnson Lakes)
Texas-Gulf Region(Lower Colorado-San Bernard Coastal) - Middle Colorado-Llano(North Llano)
Texas-Gulf Region(Lower Colorado-San Bernard Coastal) - Middle Colorado-Llano(Llano)
Texas-Gulf Region(Lower Colorado-San Bernard Coastal) - Middle
Colorado-Llano(Austin-Travis Lakes)
Texas-Gulf Region(Lower Colorado-San Bernard Coastal) - Middle Colorado-Llano(Pedernales)
Texas-Gulf Region(Lower Colorado-San Bernard Coastal) - Lower Colorado(Lower
Colorado-Cummins)
Texas-Gulf Region(Lower Colorado-San Bernard Coastal) - Lower Colorado(Lower Colorado)
Texas-Gulf Region(Lower Colorado-San Bernard Coastal) - San Bernard Coastal(San Bernard)
Texas-Gulf Region(Lower Colorado-San Bernard Coastal) - San Bernard Coastal(East
Matagorda Bay)
Texas-Gulf Region(Central Texas Coastal) - Lavaca(Navidad)
Texas-Gulf Region(Central Texas Coastal) - Guadalupe(Upper Guadalupe)
Texas-Gulf Region(Central Texas Coastal) - Guadalupe(Middle Guadalupe)
Texas-Gulf Region(Central Texas Coastal) - Guadalupe(San Marcos)
Texas-Gulf Region(Central Texas Coastal) - Guadalupe(Lower Guadalupe)
Texas-Gulf Region(Central Texas Coastal) - San Antonio(Upper San Antonio)
Texas-Gulf Region(Central Texas Coastal) - San Antonio(Lower San Antonio)
Texas-Gulf Region(Central Texas Coastal) - San Antonio(Cibolo)
Texas-Gulf Region(Central Texas Coastal) - Central Texas Coastal(East Matagorda Bay)
```

Texas-Gulf Region(Central Texas Coastal) - Central Texas Coastal(West Matagorda Bay)
Texas-Gulf Region(Central Texas Coastal) - Central Texas Coastal(East San Antonio Bay)
Texas-Gulf Region(Central Texas Coastal) - Central Texas Coastal(West San Antonio Bay)

```
Texas-Gulf Region(Central Texas Coastal) - Central Texas Coastal(Aransas Bay)
Texas-Gulf Region(Central Texas Coastal) - Central Texas Coastal(Mission)
Texas-Gulf Region(Central Texas Coastal) - Central Texas Coastal(Aransas)
Texas-Gulf Region(Nueces-Southwestern Texas Coastal) - Nueces(Nueces Headwaters)
Texas-Gulf Region(Nueces-Southwestern Texas Coastal) - Nueces(West Nueces)
Texas-Gulf Region(Nueces-Southwestern Texas Coastal) - Nueces(Upper Nueces)
Texas-Gulf Region(Nueces-Southwestern Texas Coastal) - Nueces(Turkey)
Texas-Gulf Region(Nueces-Southwestern Texas Coastal) - Nueces(Middle Nueces)
Texas-Gulf Region(Nueces-Southwestern Texas Coastal) - Nueces(Upper Frio)
Texas-Gulf Region(Nueces-Southwestern Texas Coastal) - Nueces(Hondo)
Texas-Gulf Region(Nueces-Southwestern Texas Coastal) - Nueces(Lower Frio)
Texas-Gulf Region(Nueces-Southwestern Texas Coastal) - Nueces(San Miguel)
Texas-Gulf Region(Nueces-Southwestern Texas Coastal) - Nueces(Atascosa)
Texas-Gulf Region(Nueces-Southwestern Texas Coastal) - Nueces(Lower Nueces)
Texas-Gulf Region(Nueces-Southwestern Texas Coastal) - Southwestern Texas Coastal(North
Corpus Christi Bay)
Texas-Gulf Region(Nueces-Southwestern Texas Coastal) - Southwestern Texas Coastal(South
Corpus Christi Bay)
Texas-Gulf Region(Nueces-Southwestern Texas Coastal) - Southwestern Texas Coastal(Palo
Texas-Gulf Region(Nueces-Southwestern Texas Coastal) - Southwestern Texas Coastal(South
Laguna Madre)
Rio Grande Region(Rio Grande-Amistad) - Rio Grande-Amistad(Alamito)
Rio Grande Region(Rio Grande-Amistad) - Rio Grande-Amistad(Terlingua)
Rio Grande Region(Rio Grande-Amistad) - Rio Grande-Amistad(Maravillas)
Rio Grande Region(Rio Grande-Amistad) - Rio Grande-Amistad(Santiago Draw)
Rio Grande Region(Rio Grande-Amistad) - Rio Grande-Amistad(San Francisco)
Rio Grande Region(Rio Grande-Amistad) - Rio Grande-Amistad(Lozier Canyon)
Rio Grande Region(Rio Grande-Amistad) - Rio Grande-Amistad(Big Canyon)
Rio Grande Region(Rio Grande-Amistad) - Devils(Upper Devils)
Rio Grande Region(Rio Grande-Amistad) - Devils(Lower Devils)
Rio Grande Region(Rio Grande-Amistad) - Devils(Dry Devils)
Rio Grande Region(Lower Pecos) - Lower Pecos(Toyah)
Rio Grande Region(Lower Pecos) - Lower Pecos(Salt Draw)
Rio Grande Region(Lower Pecos) - Lower Pecos(Barrilla Draw)
Rio Grande Region(Lower Pecos) - Lower Pecos(Coyanosa-Hackberry Draws)
Rio Grande Region(Lower Pecos) - Lower Pecos(Pecos)
Rio Grande Region(Lower Pecos) - Lower Pecos(Tunas)
Rio Grande Region(Lower Pecos) - Lower Pecos(Independence)
Rio Grande Region(Lower Pecos) - Lower Pecos(Howard Draw)
Rio Grande Region(Lower Pecos) - Lower Pecos(Lower Pecos)
Texas-Gulf Region(Sabine) - Sabine(Toledo Bend Reservoir)
Texas-Gulf Region(Galveston Bay-San Jacinto) - Galveston Bay-Sabine Lake(Sabine Lake)
Texas-Gulf Region(Lower Colorado-San Bernard Coastal) - Middle Colorado-Llano(South Llano)
Texas-Gulf Region(Central Texas Coastal) - Lavaca(Lavaca)
Texas-Gulf Region(Central Texas Coastal) - San Antonio(Medina)
Lower Mississippi Region(Lower Mississippi-Lake Maurepas) - Lake Maurepas(Tangipahoa)
South Atlantic-Gulf Region(Pascagoula) - Pascagoula(Lower Leaf)
```

Lower Mississippi Region(Lower Mississippi-Yazoo) - Yazoo(Yocona)

```
South Atlantic-Gulf Region(Altamaha-St. Marys) - St. Marys-Satilla(Nassau)
South Atlantic-Gulf Region(St. Johns) - St. Johns(Upper St. Johns)
South Atlantic-Gulf Region(St. Johns) - St. Johns(Oklawaha)
South Atlantic-Gulf Region(St. Johns) - St. Johns(Lower St. Johns)
South Atlantic-Gulf Region(Southern Florida) - Kissimmee(Kissimmee)
South Atlantic-Gulf Region(Southern Florida) - Kissimmee(Northern Okeechobee Inflow)
South Atlantic-Gulf Region(Southern Florida) - Kissimmee(Western Okeechobee Inflow)
South Atlantic-Gulf Region(Southern Florida) - Southern Florida(Lake Okeechobee)
South Atlantic-Gulf Region(Southern Florida) - Southern Florida(Everglades)
South Atlantic-Gulf Region(Southern Florida) - Southern Florida(Florida Bay-Florida Keys)
South Atlantic-Gulf Region(Southern Florida) - Southern Florida(Big Cypress Swamp)
South Atlantic-Gulf Region(Southern Florida) - Southern Florida(Caloosahatchee)
South Atlantic-Gulf Region(Southern Florida) - Southern Florida(Florida Southeast Coast)
South Atlantic-Gulf Region(Peace-Tampa Bay) - Peace(Peace)
South Atlantic-Gulf Region(Peace-Tampa Bay) - Peace(Myakka)
South Atlantic-Gulf Region(Peace-Tampa Bay) - Peace(Charlotte Harbor)
South Atlantic-Gulf Region(Peace-Tampa Bay) - Tampa Bay(Sarasota Bay)
South Atlantic-Gulf Region(Peace-Tampa Bay) - Tampa Bay(Manatee)
South Atlantic-Gulf Region(Peace-Tampa Bay) - Tampa Bay(Little Manatee)
South Atlantic-Gulf Region(Peace-Tampa Bay) - Tampa Bay(Alafia)
South Atlantic-Gulf Region(Peace-Tampa Bay) - Tampa Bay(Hillsborough)
South Atlantic-Gulf Region(Peace-Tampa Bay) - Tampa Bay(Tampa Bay)
South Atlantic-Gulf Region(Peace-Tampa Bay) - Tampa Bay(Crystal-Pithlachascotee)
South Atlantic-Gulf Region(Peace-Tampa Bay) - Tampa Bay(Withlacoochee)
South Atlantic-Gulf Region(Suwannee) - Aucilla-Waccasassa(Waccasassa)
South Atlantic-Gulf Region(Suwannee) - Aucilla-Waccasassa(Econfina-Steinhatchee)
South Atlantic-Gulf Region(Suwannee) - Suwannee(Lower Suwannee)
South Atlantic-Gulf Region(Suwannee) - Suwannee(Santa Fe)
South Atlantic-Gulf Region(Ochlockonee) - Ochlockonee(Lower Ochlockonee)
South Atlantic-Gulf Region(Apalachicola) - Apalachicola(Apalachicola)
South Atlantic-Gulf Region(Apalachicola) - Apalachicola(New)
South Atlantic-Gulf Region(Apalachicola) - Apalachicola(Apalachicola Bay)
South Atlantic-Gulf Region(Choctawhatchee-Escambia) - Florida Panhandle Coastal(St.
Andrew-St. Joseph Bays)
South Atlantic-Gulf Region(Choctawhatchee-Escambia) - Florida Panhandle
Coastal(Choctawhatchee Bay)
South Atlantic-Gulf Region(Choctawhatchee-Escambia) - Florida Panhandle Coastal(Pensacola
South Atlantic-Gulf Region(Apalachicola) - Apalachicola(Chipola)
South Atlantic-Gulf Region(Choctawhatchee-Escambia) - Florida Panhandle Coastal(Yellow)
South Atlantic-Gulf Region(Choctawhatchee-Escambia) - Florida Panhandle
Coastal(Blackwater)
South Atlantic-Gulf Region(Choctawhatchee-Escambia) - Choctawhatchee(Pea)
South Atlantic-Gulf Region(Choctawhatchee-Escambia) - Choctawhatchee(Lower
Choctawhatchee)
South Atlantic-Gulf Region(Choctawhatchee-Escambia) - Escambia(Escambia)
South Atlantic-Gulf Region(Suwannee) - Aucilla-Waccasassa(Aucilla)
South Atlantic-Gulf Region(Ochlockonee) - Ochlockonee(Apalachee Bay-St. Marks)
Lower Mississippi Region(Lower Red-Ouachita) - Lower Ouachita(Lower Ouachita)
```

```
Lower Mississippi Region(Lower Red-Ouachita) - Lower Red(Lower Red)
Lower Mississippi Region(Lower Red-Ouachita) - Lower Red(Castor)
Lower Mississippi Region(Lower Red-Ouachita) - Lower Red(Dugdemona)
Lower Mississippi Region(Lower Red-Ouachita) - Lower Red(Little)
Lower Mississippi Region(Lower Red-Ouachita) - Lower Red(Black)
Lower Mississippi Region(Lower Red-Ouachita) - Lower Red(Bayou Cocodrie)
Lower Mississippi Region(Boeuf-Tensas) - Boeuf-Tensas(Tensas)
Lower Mississippi Region(Lower Mississippi-Lake Maurepas) - Lower Mississippi-Baton
Rouge(Lower Mississippi-Baton Rouge)
Lower Mississippi Region(Lower Mississippi-Lake Maurepas) - Lake Maurepas(Tickfaw)
Lower Mississippi Region(Lower Mississippi-Lake Maurepas) - Lake Maurepas(Lake Maurepas)
Lower Mississippi Region(Lower Mississippi-Lake Maurepas) - Lower Grand(Lower Grand)
Lower Mississippi Region(Louisiana Coastal) - Atchafalaya-Vermillion(Atchafalaya)
Lower Mississippi Region(Louisiana Coastal) - Atchafalaya-Vermillion(Bayou Teche)
Lower Mississippi Region(Louisiana Coastal) - Atchafalaya-Vermillion(Vermillion)
Lower Mississippi Region(Louisiana Coastal) - Calcasieu-Mermentau(Mermentau Headwaters)
Lower Mississippi Region(Louisiana Coastal) - Calcasieu-Mermentau(Mermentau)
Lower Mississippi Region(Louisiana Coastal) - Calcasieu-Mermentau(Upper Calcasieu)
Lower Mississippi Region(Louisiana Coastal) - Calcasieu-Mermentau(Whisky Chitto)
Lower Mississippi Region(Louisiana Coastal) - Calcasieu-Mermentau(West Fork Calcasieu)
Lower Mississippi Region(Louisiana Coastal) - Calcasieu-Mermentau(Lower Calcasieu)
Lower Mississippi Region(Lower Mississippi) - Lower Mississippi-New Orleans(Lower
Mississippi-New Orleans)
Lower Mississippi Region(Lower Mississippi) - Lake Pontchartrain(Liberty Bayou-Tchefuncta)
Lower Mississippi Region(Lower Mississippi) - Lake Pontchartrain(Lake Pontchartrain)
Lower Mississippi Region(Lower Mississippi) - Lake Pontchartrain(Eastern Louisiana Coastal)
Lower Mississippi Region(Lower Mississippi) - Central Louisiana Coastal(East Central Louisiana
Lower Mississippi Region(Lower Mississippi) - Central Louisiana Coastal(West Central
Louisiana Coastal)
Arkansas-White-Red Region(Red-Sulphur) - Red-Saline(Middle Red-Coushatta)
Arkansas-White-Red Region(Red-Sulphur) - Red-Saline(Red Chute)
Arkansas-White-Red Region(Red-Sulphur) - Red-Saline(Bayou Pierre)
Arkansas-White-Red Region(Red-Sulphur) - Red-Saline(Lower Red-Lake latt)
Arkansas-White-Red Region(Red-Sulphur) - Red-Saline(Saline Bayou)
Arkansas-White-Red Region(Red-Sulphur) - Red-Saline(Black Lake Bayou)
South Atlantic-Gulf Region(Pearl) - Pearl(Bogue Chitto)
Lower Mississippi Region(Lower Mississippi-Yazoo) - Yazoo(Lower Yazoo)
Lower Mississippi Region(Lower Mississippi-Yazoo) - Yazoo(Deer-Steele)
Lower Mississippi Region(Lower Mississippi-Big Black) - Lower Mississippi-Natchez(Lower
Mississippi-Natchez)
Lower Mississippi Region(Lower Mississippi-Lake Maurepas) - Lake Maurepas(Bayou
Sara-Thompson)
Lower Mississippi Region(Lower Mississippi-Lake Maurepas) - Lake Maurepas(Amite)
Texas-Gulf Region(Sabine) - Sabine(Lower Sabine)
South Atlantic-Gulf Region(Mobile-Tombigbee) - Black Warrior-Tombigbee(Town)
South Atlantic-Gulf Region(Mobile-Tombigbee) - Black Warrior-Tombigbee(Tibbee)
South Atlantic-Gulf Region(Pascagoula) - Pascagoula(Chunky-Okatibbee)
```

South Atlantic-Gulf Region(Pascagoula) - Pascagoula(Upper Leaf)

South Atlantic-Gulf Region(Pascagoula) - Pascagoula(Pascagoula)

South Atlantic-Gulf Region(Pascagoula) - Pascagoula(Black)

South Atlantic-Gulf Region(Pearl) - Pearl(Upper Pearl)

South Atlantic-Gulf Region(Pearl) - Pearl(Middle Pearl-Strong)

South Atlantic-Gulf Region(Pearl) - Pearl(Middle Pearl-Silver)

South Atlantic-Gulf Region(Pascagoula) - Pascagoula(Lower Chickasawhay)

South Atlantic-Gulf Region(Pascagoula) - Pascagoula(Escatawpa)

South Atlantic-Gulf Region(Pascagoula) - Pascagoula(Mississippi Coastal)

South Atlantic-Gulf Region(Pearl) - Pearl(Lower Pearl)

Texas-Gulf Region(Nueces-Southwestern Texas Coastal) - Southwestern Texas Coastal(North Laguna Madre)

Texas-Gulf Region(Nueces-Southwestern Texas Coastal) - Southwestern Texas Coastal(San Fernando)

Texas-Gulf Region(Nueces-Southwestern Texas Coastal) - Southwestern Texas Coastal(Baffin Bay)

Texas-Gulf Region(Nueces-Southwestern Texas Coastal) - Southwestern Texas Coastal(Central Laguna Madre)

State(s):

Texas

Alabama

Mississippi

Louisiana

Florida

County/Parish(es):

AL - Baldwin

AL - Clarke

AL - Conecuh

AL - Covington

AL - Dale

AL - Escambia

AL - Henry

AL - Houston

AL - Mobile

AL - Monroe

AL - Washington

AL - Coffee

FL - Broward

FL - Escambia

FL - Pasco

AL - Geneva

FL - Calhoun

FL - Pinellas

FL - Charlotte

FL - Citrus

FL - Clay

FL - Collier

FL - Columbia

- FL Dixie
- FL Franklin
- FL Gadsden
- FL Gilchrist
- FL Polk
- FL Putnam
- FL Sarasota
- FL Sumter
- FL Suwannee
- FL Taylor
- FL Union
- FL Wakulla
- FL Alachua
- FL Baker
- FL Bay
- FL Bradford
- FL Glades
- FL Gulf
- FL Hamilton
- FL Santa Rosa
- FL Walton
- FL Washington
- FL DeSoto
- FL Hardee
- FL Hernando
- FL Highlands
- FL Hillsborough
- FL Holmes
- FL Jackson
- FL Jefferson
- FL Lafayette
- FL Lake
- FL Lee
- FL Leon
- FL Levy
- FL Liberty
- FL Madison
- FL Manatee
- FL Marion
- FL Miami-Dade
- FL Monroe
- FL Okaloosa
- FL Palm Beach
- FL Hendry
- LA Beauregard
- LA Calcasieu
- LA Cameron
- LA Iberia
- LA Jefferson

- LA Jefferson Davis
- LA Lafayette
- LA Lafourche
- LA Orleans
- LA Plaquemines
- LA St. Bernard
- LA St. Charles
- LA St. Martin
- LA St. Mary
- LA St. Tammany
- LA Tangipahoa
- LA Terrebonne
- LA Vermilion
- LA Washington
- LA Acadia
- LA Allen
- LA St. James
- LA St. John the Baptist
- LA St. Landry
- MS Hancock
- MS Harrison
- MS Forrest
- MS George
- MS Greene
- MS Jackson
- 140
- MS Lamar
- MS Pearl River
- MS Perry
- MS Stone
- TX Aransas
- TX Bee
- TX Brazoria
- TX Calhoun
- TX Brooks
- TX Cameron
- TX Chambers
- TX Colorado
- TX DeWitt
- TX Fort Bend
- TX Galveston
- TX Goliad
- TX Duval
- TX Hardin
- TX Harris
- TX Hidalgo
- TX Jackson
- TX Jasper
- TX Jefferson
- TX Jim Wells

- TX Kenedy
- TX Kleberg
- TX Lavaca
- TX Liberty
- TX Live Oak
- TX Matagorda
- TX Montgomery
- TX Newton
- TX Nueces
- TX Orange
- TX Refugio
- TX San Patricio
- TX Tyler
- TX Victoria
- TX Waller
- TX Wharton
- TX Willacy

Congressional District(s):

- LA 6
- LA 5
- FL 3
- FL 14
- FL 15
- FL 4
- TX 28
- TX 18
- TX 10
- TX 22
- LA 4
- FL 26
- LA 1
- FL 11
- FL 13
- LA 2
- TX 27
- TX 14
- LA 3
- FL 20
- AL 1
- FL 16
- FL 18
- FL 12
- TX 29
- TX 36
- MS 4
- FL 1
- TX 34
- TX 15

FL - 19

TX - 9

FL - 2

TX - 8

FL - 17

FL - 28

Narratives

Introduction and Overview:

EPA is proposing to continue its highly successful Trash Free Waters (TFW) Program in or directly benefiting communities across the coastal counties in the five Gulf states (see EPA's website https://www.epa.gov/trash-free-waters for more information on this program). This program intends to develop competitive funding opportunities for activities or plans to prevent, remove, and/or recycle/upcycle trash from waters that drain to the Gulf coast. If EPA is approved for the 2026 FPL funding for implementation, we will work with our five Gulf state partners to first determine the needs of the respective state and then focus any future funding opportunities to support state need. Projects will be chosen to provide the greatest impact, efficiency, and how well proposed project activities are likely to be successful. Eligible projects will include prevention activities (sustainable replacement products, waste lifecycle, environmental stewardship), removal activities (in-situ trash capture devices, cleanup events, incentivized disposal), and/or circularity and life cycle activities or planning to provide positive outcomes at larger scale (generation to disposal). In addition to the \$9M requested from the 2026 FPL, EPA will provide \$10M in co-funding and hopes to include \$1M from returned funds of closed RESTORE IAAs for a total budget of \$20M. EPA intends to award \$4M in grants per Gulf state with estimated project periods of up to 3 years. Additional lead time will be needed for the IAA and program establishment and for the IAA closeout after grants end. Depending on when funding opportunities are developed, released, and awarded, the IAA could be up to seven years. Estimated benefits are significantly reducing pollutants such as litter and trash from local water bodies that flow to the Gulf coast, thereby improving water quality, and positively impacting fragile ecosystems and local economies. Previous TFW projects have proven records of diverting or recycling tens of thousands of pounds of trash, preventing future litter by engagement, and informing future stewards of a trash free environment. Articles supporting these types of activities have been added to the bibliography.

Comprehensive Plan: Goal 2 to "Restore water quality and quantity" along with Objectives "Restore, improve, and protect water resources" and "Promote Natural Resource Stewardship and Environmental Awareness" were selected for this program because all communities and waterbodies are impacted by common and visible pollutants such as litter and trash. Stormwater runoff from metropolitan and suburban environments concentrate these pollutants into tributaries of other water bodies which eventually impact communities downstream and into the Gulf. These pollutants can, at high enough concentrations, negatively impact a community's ability to adapt to natural disasters such as flooding. Even at low concentrations or below visibility, these pollutants can damage fragile ecosystems, human health, and wildlife. Trash can also negatively impact tourism economies which can be significant since the GDP of the Gulf blue economy is an estimated \$104B and supports close to 600K jobs⁵. If these pollutants can be captured and more importantly prevented from strategic locations, large-scale protection and restoration of natural resources can be achieved at project locations and downstream to the Gulf coast. Preventing pollutants through sustainable products, proper disposal, and/or lifecycle

planning is the ultimate goal of the TFW program as this provides sustainability long after projects end. For all of the reasons noted above, this program aligns with the Planning Framework Restoration Techniques to "Reduce excess nutrients and other pollutants to watersheds" and "Promote natural resource stewardship and environmental awareness".

General risks are minimal and may involve ensuring grant funds are expediently and efficiently spent in which EPA has significant experience in overseeing TFW projects. Strategic planning will help ensure TFW activities are implemented in high impact locations to provide the greatest trash reductions. In-situ trash removal devices must be installed and maintained properly to prevent any impediments to natural flow of waterways.

Proposed Methods:

The primary objectives of this program will be to prevent, remove, or recirculate trash, and the success of this project will be assessed by the amount of trash diverted for each of these categories. As noted, prevention activities will likely include community engagement to local businesses, communities, and citizens/students in sustainable replacement products, waste lifecycle, and proper disposal. Removal activities will likely include in-situ collection devices (e.g., Litter Gitter, Seabin, trash wheel) that capture trash in rivers, streams and other fresh, brackish, or marine water bodies in strategic locations¹; promotion of proper disposal (trash sculptures, incentives); and volunteer cleanup events. Novel removal methods may be incentivized in the funding opportunity. Circularity and life cycle activities and/or planning are anticipated activities to improve outcomes from generation, use, recycling/upcycling (upcycling is reuse or repurposing for value or more efficient use²) to disposal on a broader scale. Novel recycling and/or creative upcycling methods may be incentivized in the funding opportunity. EPA will encourage the recipient to support how their proposed activities will be most effective at trash reduction while also being cost effective.

Assessment of prevention activities would use modeling to estimate trash diverted, where appropriate. EPA will measure trash removal or recirculation activities using trackers (e.g., ETAP) or loggers for parameters such as volume/weight, location, type, and aging⁹. Both would be assessed against metrics established for the program. To ensure quality, consistency, and objectivity of modeling and/or measurements across the five Gulf States, EPA will require use of consistent modeling procedures and standardized training and protocols for removal tracking. Quality will be formalized in a program level Quality Assurance Project Plan (QAPP) which will address the QA requirements of project activities and establish a quality system to ensure results are of known and documented quality. A program QAPP would describe project tasks, organizational responsibilities, training and personnel requirements, objectives, protocols, tracking methods, and assessment methods. Modeling QAPPs further describe procedures for selection of information and estimation methods; acceptance or rejection of inputs/outputs used to estimate; and uncertainty of the results.

Environmental Benefits:

As previously discussed, no communities or waterbodies are immune from common and visible pollutants such as litter and trash especially trash output in the past 10 years has doubled from metropolitan areas⁴ and increased ten-fold over the past century. Improperly managed trash can enter stormwater runoff from metropolitan and suburban environments, concentrating these pollutants into tributaries of other water bodies which impact communities downstream and eventually the Gulf. These pollutants can and do negatively impact fragile ecosystems. Trash

can also negatively impact tourism and coastal economies which provide almost 37% of the total US ocean GDP5. A recent study funded by NOAA estimated that if marine debris was nearly eliminated in coastal Alabama, beach visits would increase by over 300,000 visitor days and contribute an additional \$35M in tourism spending⁸. The environmental benefits for this program would be to remove and prevent trash from strategic locations where they concentrate to provide large scale protection and restoration of natural resources from project locations all the way to the Gulf coast. Prevention has shown better overall outcomes in reducing mismanaged trash, especially upstream⁶, and providing long-term results after activities cease; however, integration of multiple strategies (prevention, removal, and circularity) works best10 and will be encouraged by this program.

So why is this important? Mismanaged trash can have significant impacts not just here in the US but across the globe with plastic trash having the greatest potential to harm the environment, wildlife, and humans. Habitat alteration is caused by trash and debris in rivers and oceanic convergence (accumulation) zones, on beaches, and submerged benthic (at and near the bottom of rivers and oceans) habitats. As debris accumulates, habitat structure may be modified, light levels may be reduced in underlying waters, and oxygen levels may be depleted. These changes can undermine the ability of open water and benthic habitats to support aquatic life. Aquatic plastic debris has been found to accumulate contaminants at concentrations that are orders of magnitude (thousands to millions of times) greater than the surrounding environment. Based on a number of studies, including those conducted by EPA, plastics have the potential to adsorb chemicals of concern from the environment, and serve as a potential global transport mechanism for contaminants of concern into the food chain and potentially to humans who eat seafoods. There is a substantial body of evidence documenting the harmful effects of aquatic plastic debris on river and marine organisms. It has been estimated that plastic marine debris adversely affects at least 267 species globally, including 86% of sea turtles, 44% of seabirds, and 43% of marine mammals9.

Because this is a program proposal, project activities and therefore anticipated environmental results are not easily estimated. EPA has managed many successful TFW projects which utilized similar activities to what is expected from this program, including:

Geauxing Green: Sustainable Festival Planning (Louisiana Universities Marine Consortium): >155,000 lbs diverted by using 100% sustainable products from 2 Louisiana festivals

Comprehensive Strategy to Create Trash Free Waters (Mobile Bay NEP): >33,000 lbs diverted by using in-situ litter removal devices at 16 locations around Mobile Bay; sustained after project end

Plastics and Trash Pollution Reduction and Prevention (American Bird Conservancy): 31,946 lbs removed from 95 beach cleanups and 11,941 people engaged

Steinhatchee Seagrass Protection and Restoration (FDEP): >8,400 lbs of derelict crab traps removed from Deadman Bay with >360 individuals reached through environmental awareness

Metrics:

Metric Title: Trash Diverted (pounds)

Target: 20000

<u>Narrative</u>: Trash removal is one of the anticipated activities from this program, which could be completed through volunteer trash removal events and trash removal/disposal devices. This metric would track how much trash was prevented or diverted from land and water and properly disposed or upcycled/recycled.

<u>Metric Title:</u> PRM005 : Monitoring - # monitoring plans developed <u>Target:</u> 1

<u>Narrative:</u> Monitoring, cataloguing, and reporting of trash removed is one of the anticipated activities from this program. One or more monitoring plans are anticipated and will provide the necessary information to catalog the trash in EPA's Escaped Trash Assessment Protocol (ETAP) and how potential sites were located.

<u>Metric Title:</u> COI002 : Community Engagement / Technical Assistance - # people reached

Target: 100

<u>Narrative:</u> Trash prevention is one of the anticipated activities from this program, which could be implemented through targeted community engagement to both citizens/students and local businesses. Environmental awareness programs can show trash prevention, lifecycle, and/or provide alternative, sustainable products. This metric would track number of individuals reached.

<u>Metric Title:</u> COI005 : Volunteer participation - # volunteers participating Target: 100

<u>Narrative:</u> Trash removal is one of the anticipated activities from this program, which could be implemented through volunteer trash removal events along the Gulf Coast. This metric would track number of volunteers participating in cleanups as well as any other volunteer-based activity.

Risk and Uncertainties:

General risks are minimal and may involve ensuring grant funds are expediently and efficiently spent in which EPA has significant experience in overseeing TFW projects. Strategic planning will help ensure TFW activities are implemented in high impact locations to provide the greatest trash reductions. Lessons learned from prior projects will be evaluated and included, where appropriate, to improve outcomes for this program.

Some short-term risks and uncertainties can include finding the most effective means of preventing and removing trash, determining optimal locations and communities to implement activities, and using funding efficiently. EPA intends to leverage existing projects, work with knowledgeable and experienced personnel in each state prior to development of funding opportunities, and mirror/leverage hot spot management plans (Project Implementation TIG) or similar plans to mitigate risks associated with implementation. Prior projects have shown little negative impacts to the environment; removal of large trash such as white goods that could damage the environment is avoided or carefully planned to mitigate risk. Impacts from prior TFW activities include the variability in responsiveness and effectiveness of prevention and removal activities. Severe weather (hurricanes) has also impacted current and prior projects by causing delays in implementation.

Long term: TFW projects are unlikely to have vulnerabilities to long-term risks such as changing land use because projects typically have short term activities such as removals (volunteer cleanups) and prevention (community engagement, product substitution). Of suggested activities, only in-situ collection devices and planning documents even have the potential for use beyond the project and be susceptible to such risks. If collection devices are left long term and not maintained, they are susceptible to damage from the environment. Planning documents will be required to consider short- and long-term risks. Funding opportunities can be written to ensure that these vulnerabilities are considered. No negative long-term risks were readily identified from previous projects. With trash generation increasing, loss of funding to continue these projects is likely the most important long-term risk.

Monitoring and Adaptive Management:

This program intends to utilize EPA's Escaped Trash Assessment Protocol (ETAP) to record the types and amounts of trash diverted (custom metric) throughout the life of the grants. ETAP was developed for use in Trash Free Waters programs and is a quantitative survey tool which provides a standard method for collecting and assessing collected trash and may be applied to a broad range of site types and environments. ETAP cataloguing will provide a consistent, comprehensive, and rigorous method for quantifying diverted trash. Trash age and level of fouling can be analyzed across material types and categories of trash collected. ETAP data can also be used to guide upstream source decisions and allow for adaptive management of projects as data are collected and analyzed. Litter profiles at cleanup sites provide insight on trends and patterns in the volume of litter collected and common item types and brands found. This information can lead to the development of a more targeted and effective community engagement campaign, be used to identify hot spots, and allow for adjustments to targeted prevention and removal activities⁹.

EPA anticipates developing at least one plan that details monitoring and adaptive management activities for the program. The number of monitoring plans will depend upon the project activities selected for each state, i.e., if monitoring and adaptive management can be covered in one plan or if multiple plans are needed.

Data Management:

All data will be managed by EPA staff. Until project activities are selected, the universe of activities that will generate data is not known. Prevention and removal will be required activities of any competitive funding opportunity; therefore, anticipated data from the program are number of volunteers participating, number of people reached through community engagement, and pounds of trash diverted for proper disposal or recycle/upcycle. EPA will be responsible for the Observational Data Plan for the program. Number of volunteers and people reached will be tracked and reported by EPA. Information on the trash prevented or diverted will be entered into ETAP spreadsheets and/or the ETAP dashboard on the Debris Tracker application^{9.} Data will be made publicly available by the end of the project grant periods. Mechanism for public availability of all data will be determined once projects are established and state requirements are considered. All data management activities will adhere to EPA record keeping policies for safe storage, retention, and accessibility.

Collaboration:

EPA anticipates collaborating with all five Gulf state member organizations to ensure that project activities meet the needs of the state and occur in the most impacted communities along the Gulf coast. EPA also anticipates leveraging work at current TFW projects across the Gulf

coastal region. Opportunities may also arise from Marine Debris projects funded by NRDA Trust Implementation Groups (TIGs) across the Gulf. All Gulf states in the Region-wide TIG funded Marine Debris project have created Hot Spot Management Plans that EPA hopes to leverage for determining locations to target for prevention and removal activities. EPA will incorporate the format used as the basis for these management plans, where applicable, in developing the TFW program monitoring plan(s). EPA will regularly communicate with the appropriate EPA TIG representatives as well as other TFW project managers to find leveraging opportunities and to collaborate on common goals across the Gulf coast. Working together should maximize efficiencies and afford the greatest opportunities for success.

Public Engagement:

Initially the five Gulf states will be engaged as described above in the collaboration section. Additional public engagement is anticipated from the subrecipients (grants) funded by this program. While specific projects are not known, it is anticipated that a significant portion of prevention will be accomplished through community engagement activities, which is a cornerstone of TFW projects. Awareness is the key to making trash free waters self-sustaining and developing future stewards of (trash free) environments. Key messages for this TFW program will be engaging the public, particularly students, on the health issues and ecosystem impacts associated with mismanaged trash; working with businesses to provide sustainable alternatives; informing the public on the lifecycle of trash and proper vs improper disposal (recycling); encouraging creative upcycling activities; and increasing overall awareness of how trash impacts our economies, our health, and the environment. Public engagement by subrecipients may also include collaboration with citizens and communities to determine the best locations to implement removal and prevention projects.

Leveraging:

Funds: \$10,000,000.00

Type: Co-funding Status: Proposed

Source Type: Other Federal

<u>Description:</u> EPA is proposing to add \$10M in co-funding from the annual appropriation

to augment the total budget for this program.

Environmental Compliance:

This proposed program includes prevention activities (sustainable replacement products, waste lifecycle, environmental stewardship), and removal activities, potentially including in-situ collection devices (e.g., Litter Gitter, Seabin, trash wheel) that capture trash in rivers, streams and other fresh, brackish, or marine water bodies. Some portions of this program (e.g., technical assistance, public affairs activities, and/or training) can be covered by the Council's Categorical Exclusion (CE) Section 4(d)(1)(vi). The trash removal activities (and possibly other components) may have environmental impacts not covered by that or any other Council CE.

Those activities that are not covered by a Council CE can be included in FPL Category 1 (funding approved) if EPA provides documentation demonstrating compliance with the National Environmental Policy Act, Endangered Species Act, Magnuson Stevens Act, National Historic Preservation Act and the Fish and Wildlife Coordination Act, as applicable. In the absence of such documentation, the implementation funding for the proposed removal activities will need to be placed in FPL Category 2, pending future FPL amendment. In that case, the proposal would

need to be modified accordingly, indicating that a portion of the implementation budget is in FPL Category 2.

Bibliography (All references listed below that were published prior to 2025 may reference the Gulf of Mexico. This nomenclature has been retained to maintain the integrity of the referenced material. The Council recognizes the name change Gulf of America):

1Battawi, Abdullah et al. "In-Stream Marine Litter Collection Device Location Determination Using Bayesian Network." Sustainability vol. 14,10 6147. 18 May. 2022, doi:10.3390/su14106147.

2Boonpracha, Jong, et al. "Upcycling for repurposing waste into Creative Products." Creativity Studies, vol. 17, no. 1, 9 Apr. 2024, pp. 192–206, https://doi.org/10.3846/cs.2024.18128.

3EPA Trash Capture Projects, Environmental Protection Agency, www.epa.gov/trash-free-waters/trash-capture-projects#tmc. Accessed 16 Jan. 2025.

4Mueller, William. "The effectiveness of recycling policy options: Waste diversion or just diversions?" Waste Management, vol. 33, no. 3, Mar. 2013, pp. 508–518, https://doi.org/10.1016/j.wasman.2012.12.007.

5"Research for the Most Productive Blue Economy in the United States." NOAA's Atlantic Oceanographic and Meteorological Laboratory, 2020, www.aoml.noaa.gov/wp-content/uploads/2020/12/Omics.pdf.

6Sakai, Shin-ichi, et al. "Waste prevention for sustainable resource and waste management." Journal of Material Cycles and Waste Management, vol. 19, no. 4, 21 Feb. 2017, pp. 1295–1313, https://doi.org/10.1007/s10163-017-0586-4.

7"State of the Science White Paper: A Summary of Literature on the Chemical Toxicity of Plastics Pollution to Aquatic Life and Aquatic-Dependent Wildlife." EPA Trash Free Waters, Environmental Protection Agency, Dec. 2016,

19january2021snapshot.epa.gov/trash-free-waters/impacts-mismanaged-trash_.html.

8"The Effects of Marine Debris on Beach Recreation and Regional Economies in Four Coastal Communities: A Regional Pilot Study." Abt Global, July 2019.

9"U.S. EPA Escaped Trash Assessment Protocol (ETAP) Reference Manual." EPA Trash Free Waters, Apr. 2021,

www.epa.gov/sites/default/files/2017-02/documents/tfw-trash_free_waters_plastics-aquatic-life-report-2016-12.pdf.

10Willis, Kathryn, et al. "How successful are waste abatement campaigns and government policies at reducing plastic waste into the marine environment?" Marine Policy, vol. 96, Oct. 2018, pp. 243–249, https://doi.org/10.1016/j.marpol.2017.11.037.

11Zelenika, Ivana, et al. "Toward Zero waste events: Reducing contamination in waste streams with Volunteer Assistance." Waste Management, vol. 76, June 2018, pp. 39–45,

https://doi.org/10.1016/j.wasman.2018.03.030.

12Zhao, Xianhui, et al. "Plastic waste upcycling toward a circular economy." Chemical Engineering Journal, vol. 428, Jan. 2022, p. 131928, https://doi.org/10.1016/j.cej.2021.131928.

13Zorpas, Antonis A et al. "Effectiveness of waste prevention program in primary students' schools." Environmental science and pollution research international vol. 24,16 (2017): 14304-14311. doi:10.1007/s11356-017-8968-7

Budget

Project Budget Narrative:

EPA is asking for \$9M from the 2026 FPL. EPA is anticipating approximately \$1M in returned funds from IAAs in FPL1. EPA will add \$10M in co-funding to the estimated budget to have a total budget of \$20M.

An IAA would be established between EPA and RESTORE Council to fund the program that EPA would manage. EPA anticipates that 1% of the \$9M will go towards Project Management [EPA Personnel, Travel, and Indirect]. MAM and data management tasks are part of Project Management and are not broken out separately in the table below because of the low percentages expected. The remainder of the funds (99%) would go to subrecipients (to EPA managed grants) for implementation of projects.

Total FPL Project/Program Budget Request: \$ 9,000,000.00

Estimated Percent Monitoring and Adaptive Management: 0 %

Estimated Percent Planning: 0 %

Estimated Percent Implementation: 99 %
Estimated Percent Project Management: 1 %
Estimated Percent Data Management: 0 %
Estimated Percent Contingency: 0 %

Estimated i ereent contingency: o

Is the Project Scalable?: Yes

If yes, provide a short description regarding scalability.:

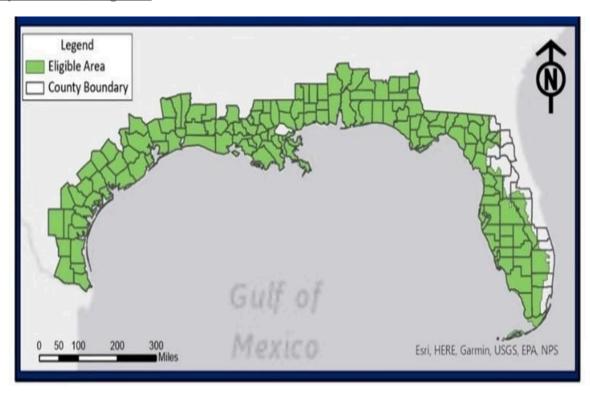
EPA's original TFW grant to MBNEP was the genesis of trash collection devices currently used in 3 Mile Creek watershed, which drains into Mobile Bay. The TFW program has since expanded to add additional grants and 16 devices now paid for by local municipalities across both Alabama coastal counties. EPA wishes to replicate this success along the Gulf Coast and needs additional funding to expand the program.

Environmental

LITTIOTITICITAL		
Environmental Requirement	Has the	Compliance Notes
	Requirement	(e.g.,title and date of
	Been	document, permit
	Addressed?	number, weblink etc.)
National Environmental Policy Act	Addressed? N/A	number, weblink etc.) Note not provided.

National Historic Preservation Act	N/A	Note not provided.
Magnuson-Stevens Act	N/A	Note not provided.
Fish and Wildlife Conservation Act	N/A	Note not provided.
Coastal Zone Management Act	N/A	Note not provided.
Coastal Barrier Resources Act	N/A	Note not provided.
Farmland Protection Policy Act	N/A	Note not provided.
Clean Water Act (Section 404)	N/A	Note not provided.
River and Harbors Act (Section 10)	N/A	Note not provided.
Marine Protection, Research and	N/A	Note not provided.
Sanctuaries Act		
Marine Mammal Protection Act	N/A	Note not provided.
National Marine Sanctuaries Act	N/A	Note not provided.
Migratory Bird Treaty Act	N/A	Note not provided.
Bald and Golden Eagle Protection Act	N/A	Note not provided.
Clean Air Act	N/A	Note not provided.
Other Applicable Environmental	N/A	Note not provided.
Compliance Laws or Regulations		

Maps, Charts, Figures



Caption : Eligible Coastal Counties

Other Uploads

GIS Data_1: EPA_FPL01_GoMCEP.zip

Caption : N/A Link to Download

http://www.restorethegulf.gov/apps/piper/web/Uploads/Download/proposal/4141/83

Council Staff Review: Trash Free Waters Program Benefiting Communities in the Gulf Coast

FPL Internal Staff Review

Notes		
9. Environme	ntal compliance: If FPL Category 1 has been selected for the	More information
implementation	on component of the project or program, does the proposal	needed
include enviro	onmental compliance documentation that fully supports the	
selection of C	ategory 1?	
Notes	Some portions of this program (e.g., education and outreach) of Council's CE Section 4(d)(1)(vi). An unknown portion of this im have impacts not covered by that CE. Unless EPA provides NI NHPA documentation to cover this latter portion, this part of the be in FPL Cat 2.	plementation work may EPA, ESA, MSA and
	Note: Restore Council staff worked with the state to resolve these comments.	

Summary of Best Available Science Review: Trash Free Waters Program Benefiting Communities in the Gulf Coast

The evaluation of the proposal for the Trash Free Waters (TFW) program reflects an appreciation for its strong foundation and history of success, particularly in the Gulf Coast region. Reviewers acknowledged the program's clear goals and alignment with public data and previous TFW achievements, emphasizing its potential to make a meaningful impact on waterway health.

The flexible structure of the proposal, which allows for future project selection, offers opportunities for innovation and responsiveness to local needs. This adaptive approach is seen as a strength, as it enables the program to evolve and incorporate new priorities and technologies over time.

While the proposal would benefit from additional detail—such as expanded discussions on methodologies, risk mitigation strategies, and the inclusion of peer-reviewed references—reviewers recognize that these gaps stem largely from the proposal's preliminary nature and the broad scope of its objectives. The mention of EPA's Escaped Trash Assessment Protocol (ETAP) demonstrates a commitment to using established tools for monitoring and evaluation, with room for refinement as specific projects are defined.

Importantly, the proposal highlights emerging concerns such as microplastics, showing an awareness of complex pollution challenges. Reviewers noted that the proposal needed clarification on the scope of the proposed removal activities, particularly whether they will target only visible pollutants like litter or also non-visible pollutants such as dissolved substances and micro-sized pollutants (e.g., sediments, phosphorus, nitrogen, microplastics). Some reviewers noted the absence of peer-reviewed support, particularly in areas like health impacts, economic costs, and risks. Additionally, the proposal does not address potential long-term environmental risks and lacks sufficient discussion on mitigating short-term implementation risks.

Overall, reviewers see the TFW proposal as an initiative with a strong legacy, and they encourage further elaboration and integration of recent research to fully realize its potential. Reviewers agree that the proposal would benefit from a more rigorous discussion of methodologies, peer-reviewed sources, and potential risks. With those enhancements, the EPA TFW program is well-positioned to deliver measurable environmental benefits.

Summary of EPA's Response to BAS Comments:

The Environmental Protection Agency's response to the BAS comments on the Trash Free Waters (TFW) program clarifies several points raised by reviewers. The program, developed by the EPA, primarily cites EPA sources due to its established nature and previous success in similar activities. The Gulf of America Division (GAD) acknowledges that a detailed BAS review is challenging given the unknown nature of specific projects and activities. However, GAD intends to incorporate peer-reviewed articles and further details to support the proposed categories of activities (prevention, removal, circularity), and update the proposal as needed. EPA GAD will also review risks and uncertainties based on prior experiences with similar TFW projects.

In response to concerns about the lack of specific metrics, GAD plans to revise the application to include more details on how EPA will ensure the quality and consistency of data through validated trackers like ETAP and Marine Debris. They also plan to provide more detailed information on assessment methods and metrics for success, focusing on trash diversion.

GAD clarified that the current focus of the program is on visible trash, though future funding opportunities may address microplastics and other pollutants. They plan to add discussions on long-term environmental risks and short-term risks associated with implementation. Additionally, the proposal will be updated to include more examples of successful projects and lessons learned from less successful ones. GAD intends to develop a monitoring plan for the program to track the efficiency and cost-effectiveness of trash removal activities and will ensure that funding recipients are required to submit comprehensive monitoring plans. Despite concerns about the scope of funding, GAD acknowledges the complexity of trash management and will review provided resources for potential inclusion in the proposal.

Best Available Science Review Forms: Trash Free Waters Program Benefiting Communities in the Gulf Coast



Proposal Title: Trash Free Waters Program Benefiting Communities in the Gulf Coast Location (If Applicable): All coastal counties within RESTORE boundary are eligible. Locations will be determined once projects are selected via competitive funding opportunities, but they are anticipated to be spread equally among the five Gulf states benefitting communities.

Council Member Bureau or Agency: Environmental Protection Agency

Type of Funding Requested: Implementation

Reviewed by: In Gulf 2

Date of Review: 9/23/2024

Best Available Science:

These 4 factors/elements help frame the reviewer's answers to A, B and C found in next section:

Question 1.	
Have the proposal objectives, including proposed methods, been	Need more information
justified using peer reviewed and/or publicly available information?	

Comments:

The references listed in this proposal are, at best, a little light. There are seven cited works in the bibliography. Two of the references do not have details about the citation information, and instead include weblinks to archived pages. Of these two references, one was reviewable by searching for the title of the work, but the other was un-retrivable at the time of this review. I do believe that there is ample work that has been published citing the ETAP protocol, and perhaps my familiarity with this program is allowing for some bias in this statement, but the

research teams citation of the protocol is probably sufficient.

What I do find lacking is the use of peer-reviewed or publicly available information to support the project justification. Only one reference could reseasonably discuss the health impacts of pollution; one reference provided economic impact. Of the seven sources, one (1) was unviewable due to it being an archived webpage with a broken link (snapshot.epa.gov), and two others were webpages that were landing places for considerable information provided with links.

If information supporting the proposal does not directly pertain to the Gulf	Yes
Coast region, are the proposal's methods reasonably supported and	100
adaptable to that geographic area?	

Comments:

This proposal had references that included study areas in the proposed project area, such as the Alabama coast. Where there are not specific instances, the logic used in both the proposal narrative and the supporting literature reasonably support adaptation or scalability to other locales.

Question 3.	
Are the literature sources used to support the proposal accurately and completely cited? Are the literature sources represented in a fair and unbiased manner?	Need more information
	-

Comments:

The literature sources represented in this proposal are presented in a fair and unbiased manner. While the review instructions did not site a specific format to check the citations against (e.g. APA, MLA, Chicago, or the specific requirements of a scientific journal), the citations were at least inconsistent between references. For instance, one citation was written in a format of author, year (English et al, 2019), and in another instance only citing agency source (Source – EPA).

Question 4.	
Does the proposal evaluate uncertainties and risks in achieving its objectives over time? (e.g., is there an uncertainty or risk in the near- and/or long-term that the project/program will be obsolete or not function as planned?)	Need more information

Comments:

More information should be used to expand on risks. Risk and uncertainties did not have a substantial narrative to address these concerns, merely noting "General risks are minimal and may involve ensuring grant funds are expediently and efficiently spent in which GMD has significant experience in overseeing TFW projects."

The authors did mention that the proposed project has future climate risks, but did not connect this identified risk to the project, or how the project planners were going to mitigate these risks in their planning efforts.

Based on the answers to the previous 4 questions, and *giving deference to the* sponsor to provide within reason the use of best available science, the following three questions can be answered:

Question A	
Has the applicant provided reasonable justification that the proposal is based on science that uses peer- reviewed and publicly available data?	Yes
Comments:	
The EPA ETAP program and Trash Free Waters are well-respected and tested reasonable justification that continuing these programs in the Gulf coast regiscience.	•

Question B	
Has the applicant provided reasonable justification that the proposal is based on science that maximizes the quality, objectivity, and integrity of information (including, as applicable, statistical information)?	Yes

Comments:

The EPA ETAP program and Trash Free Waters are well-respected and tested programs; there is reasonable justification that expanding these projects in this project area will further quality, objectivity and integrity of trash-reduction and data gathering of such programs. However, I feel that my assessment of these programs is because of some prior research into ETAP and TFW. The proposal would be better served by the authors if the application was clarified and boistered with additional supporting information and references.

Question C	
Has the applicant provided reasonable justification that the proposal is based on science that clearly documents and communicates risks and uncertainties in the scientific basis for such projects/programs?	No
Comments:	
No references or scientific basis was given in this proposal effort to address risks and uncertainties with science.	

Science Context Evaluation:

Question A	
Has the project/program sponsor or project partners demonstrated	Yes
experience in implementing a project/program	
similar to the one being proposed?	
Comments:	
Trash Free Waters is a successful program; this project will also be successful v	vith similar planning.

Question B	
Does the project/program have clearly defined goals and objectives?	Yes
Comments:	
Project narrative appears to have clearly defined goals and objectives.	

Question C	
Has the proposal provided a clear description of the methods proposed, and appropriate justification for why the method is being selected (e.g., scientifically sound; cost-effectiveness)?	Need more information
Comments:	
The proposal described the methods proposed and some justification of why the method was selected. However, I think the strength of the proposal would be better served by having a deeper dive into the methodology and the effectiveness of the protocol.	

Question D	
Does the project/program identify the likely environmental benefits of the proposed activity? Where applicable, does the application discuss those benefits in reference to one or more underlying environmental stressors identified by best available science and/or regional plans?	Yes
Comments:	
This proposal appears to give justification to the benefits of the project. Howe proposal effort would be better substantiated with additional references of a	-

Question E		

Does the project/program have measures of success (i.e., metrics) that align	Yes
with the primary Comprehensive Plan goal(s)/objectives? (Captures the	
statistical information requirement as defined by RESTORE Act)	
Comments:	
Cited measures/metrics appear to align with the Comprehensive Plan as defined by the RESTORE Act.	

Question F	
Does the proposal discuss the project/program's vulnerability to potential long-term environmental risks (i.e., climate, pollution, changing land use)? (Captures risk measures as defined under best available science by the RESTORE Act)	Need more information
Comments	

Comments:

This area of the proposal effort was significantly lacking. The proposal did not appear to look at prior best available science for mitigating measures of risk. The proposal would be much better served to evaluate these risks.

Question G	
Does the project/program consider other applicable short-term implementation risks and scientific uncertainties? Such risks may include the potential for unanticipated adverse environmental and/or socio-economic impacts from project implementation. Is there a mitigation plan in place to address these risks? Any relevant scientific uncertainties and/or data gaps should also be discussed. (Captures risk measures as defined under best available science by the RESTORE Act)	Need more information

Comments:

No portion of the narrative addresses unanticipated adverse outcomes or socioeconomic impacts. As such, no effort was given to mention a plan or mitigation measures for such instances.

Question H	
Does the project/program consider recent and/or relevant information in	No
discussing the elements above?	
Comments:	
Because the impacts and risks were not addressed, nor plans developed for mitigation as mentioned above, there is no significant elements discussing the relevant or recent information.	

Question I

Has the project/program evaluated past successes and failures of similar	Need more information
efforts? (Captures the communication of risks and uncertainties in the	
scientific basis for such projects as defined by the RESTORE Act)	

Comments:

My interpretation of this proposal leaves the impression that the authors rely on the past successes of Trash Free Waters and ETAP program, and does not dive into explanation in the narrative. The proposal narrative certainly lacks in substantial discussion of risks and uncertainties.

Question J	
Has the project/program identified a monitoring and data management strategy that will support project measures of success (i.e., metrics). If so, is appropriate best available science justification provided? If applicable, how is adaptive management informed by the performance criteria? (Captures statistical information requirement a defined by the RESTORE Act)	Yes

Comments:

The authors did provide information related to developing a project data plan, as well as mentioning that volunteers will be tracked in the program, and will adhere to EPA record keeping policies.

The narrative stated, "Until project activities are selected, the universe of activities that will generate data is not known." While this may be true, I do believe the proposal would have been strengthened if the authors mentioned the quality assurance and project planning that EPA usually requires for their projects, and how QAPP-development would address statistical information and quality control.

Please summarize any additional information needed below:
No further information at this time.



SCIENCE EVALUATION

Bucket 2: Comprehensive Plan Component

Proposal Title: Trash Free Waters Program Benefiting Communities in the Gulf Coast

Location (If Applicable): All coastal counties within RESTORE boundary are eligible. Locations will be determined once projects are selected via competitive funding opportunities, but they are anticipated to be spread equally among the five Gulf states benefitting communities.

Council Member Bureau or Agency: Environmental Protection Agency

Type of Funding Requested: Implementation

Reviewed by: Out of Gulf

Date of Review: November 1, 2024

Best Available Science:

These 4 factors/elements help frame the reviewer's answers to A, B and C found in next section:

Question 1.	
Have the proposal objectives, including proposed methods, been justified	Need more information
using peer reviewed and/or publicly available information?	

Comments

As a program proposal, the methods have been deferred to a later, internal stage of project solicitation and review. In my judgment this is a shortcoming of the current proposal, because it separates the evaluation of Best Available Science by the RESTORE Council from the specific projects for which the funds will be expended. The objects of the program are well-supported and widely recognized.

Question 2.	
If information supporting the proposal does not directly pertain to the Gulf Coast region, are the proposal's methods reasonably supported and adaptable to that geographic area?	Need more information
Comments:	
Please see the above response. However, there is every reason to expect that selected methods would be largely or entirely relevant to the Gulf Coast region regardless of their origin.	

Question 3.	
Are the literature sources used to support the proposal accurately and completely cited? Are the literature sources represented in a fair and unbiased manner?	Yes
Comments:	
This is not a well-worded question for the proposal in question. The cited sources are correctly represented, but almost none of them are provided.	

Question 4.	
Does the proposal evaluate uncertainties and risks in achieving its objectives	No
over time? (e.g., is there an uncertainty or risk in the near- and/or long-term	
that the project/program will be obsolete or not function as planned?)	
Comments:	
I see no such acknowledgment. There is a "Risk and Uncertainty" narrative paragraph, for which "trust us" appears to be the primary message.	

Based on the answers to the previous 4 questions, and *giving deference to the* sponsor to provide within reason the use of best available science, the following three questions can be answered:

Question A	
Has the applicant provided reasonable justification that the proposal is based on science that uses peer- reviewed and publicly available data?	No
Comments:	

The need for such a program is well-supported and entirely justifiable. The devil is in the details, however, since it will be individual projects that actually are or are not effective. There is no indication that BAS has been, or will be, applied to ensure that such projects will achieve their intended benefits. If this is an acceptable deference of BAS application, so be it—but RESTORE will have no role in those subsequent project decisions. Evidence of such a criterion in future project evaluation would not have been a difficult inclusion in the current program proposal.

Question B	
Has the applicant provided reasonable justification that the proposal is	Need more information
based on science that maximizes the quality, objectivity, and integrity of	
information (including, as applicable, statistical information)?	
Comments:	
To the extent that the proposal is for a problem of widely recognized importan	ce, "yes." See above for
uncertainties about whether the funds as actually expended will meet this criterion.	
Question C	

Question C	
Has the applicant provided reasonable justification that the proposal is based on science that clearly documents and communicates risks and uncertainties in the scientific basis for such projects/programs?	No
Comments:	
Please see the above answers. The "Risk and Uncertainties" section of the proposal is inadequate.	

Science Context Evaluation:

Question A	
Has the project/program sponsor or project partners demonstrated experience in implementing a project/program similar to the one being proposed?	Yes
Comments:	

Question B	
Does the project/program have clearly defined goals and objectives?	Need more information
Comments:	

Goals, yes. Objectives (i.e., quantifiable targets that would constitute "success"), none that are meaningful. There is a list of metrics, but the quantities specified are absurd for a proposed 7-year, \$20M program (1 monitoring plan, 100 volunteers).

Question C	
Has the proposal provided a clear description of the methods proposed, and appropriate justification for why the method is being selected (e.g., scientifically sound; cost-effectiveness)?	No
Comments:	
Please see narrative comments at the end of this form.	

Question D	
Does the project/program identify the likely environmental benefits of the proposed activity? Where applicable, does the application discuss those benefits in reference to one or more underlying environmental stressors identified by best available science and/or regional plans?	Yes
Comments:	
Uncertain if this is a relevant criterion for a program. With due deference for t programmatic proposal, "yes."	he limitations of a

Question E	
Does the project/program have measures of success (i.e., metrics) that align with the primary Comprehensive Plan goal(s)/objectives? (Captures the statistical information requirement as defined by RESTORE Act)	No
Comments:	
I do not see these in any meaningful fashion. See Q.B., above.	

Question F	
Does the proposal discuss the project/program's vulnerability to potential long-term environmental risks (i.e., climate, pollution, changing land use)? (Captures risk measures as defined under best available science by the RESTORE Act)	No
Comments:	
No—it asserts that the program will not be vulnerable to climate but provides	no justification.

Question G	
Does the project/program consider other applicable short-term	No
implementation risks and scientific uncertainties? Such risks may include	
the potential for unanticipated adverse environmental and/or	
socio-economic impacts from project implementation. Is there a mitigation	
plan in place to address these risks? Any relevant scientific uncertainties	
and/or data gaps should also be discussed. (Captures risk measures as	
defined under best available science by the RESTORE Act)	
Comments:	
None of these are present in the proposal.	

Question H	
Does the project/program consider recent and/or relevant information in discussing the elements above?	No
Comments:	
No—recent literature and other sources are lacking. See comments below.	

Question I	
Has the project/program evaluated past successes and failures of similar efforts? (Captures the communication of risks and uncertainties in the scientific basis for such projects as defined by the RESTORE Act)	Need more information
Comments:	
Since the Trash Free Waters program has existed for 11 years, there is surely learned" that would be available to the program managers and project evaluate been shared as part of the present proposal, however.	

Has the project/program identified a monitoring and data management	Yes
strategy that will support project measures of success (i.e., metrics). If so, is the appropriate best available science justification provided? If applicable, how is adaptive management informed by the performance criteria? (Captures statistical information requirement a defined by the RESTORE Act)	ies

Comments:

The proposal invokes EPA's Escaped Trash Assessment Protocol (ETAP) as the quantitative framework for data management and analysis. Its evaluation is beyond the scope of my review, but presumably it is a robust and appropriate framework for such activities.

Please summarize any additional information needed below:

There is much to like about this proposal, but not a lot of substance to it. As noted in the RESTORE preamble, "the program proposal information may not include project-specific details." This proposal has taken that guidance to heart, but in so doing has missed some opportunities to show how best available science has, and will continue to, guide the selection of individual projects for inclusion in this program.

The focus of EPA on trash reduction is laudatory. Its program, "Trash Free Waters," was established in 2013, and the range and quantity of its activities since that time are impressive. Its webpage of sponsored project (https://www.epa.gov/trash-free-waters/trash-free-waters-projects) lists about two dozen projects, which is either "a lot" or "rather few," depending on whether this is or is not a comprehensive list of all program activities since its inception.

The Gulf States have been an early focus of the TFW Program, marked by publication of the "Atlas of Gulf States Litter Control Policies and Programs" in December 2016 (EPA 842-R-16-004). Most of that document is an inventory of existing state and local trash-reduction initiatives, noting "the great value of having basic information on actions that other public organizations are taking to reduce and prevent aquatic trash. Such information can help state and municipal governments and other interest groups learn about successful actions being taken elsewhere" (p.6). The document otherwise offers only broad descriptions of the problems of trash in waterways, provides limited references to support the value and relative efficacy of alternative trash-reduction strategies, and articulates the program's goal "of achieving zero loadings of trash entering large aquatic ecosystems by 2025." The current request to RESTORE for \$9M suggests that this goal is still far from being achieved, and it raises some question as to whether the program's actions to date have been ineffective, or simply insufficient in the face of a truly massive and challenging problem.

What appears to be lacking in this proposal is any guidance on the types of measures that are likely to be most effective at trash reduction. Presumably this level of guidance has been deferred to later stages of project solicitation and review, but in my judgment this is a missed opportunity. Trash as an environmental pollutant has seen a great deal of research attention over the last five years, but little of that is evident in this program proposal, boding ill for any subsequent project solicitations. In the last 5 years, a quick search using the keywords "trash" and "pollution" yielded 262 research articles. Of course, such a broad search yields many results of irrelevance to the current proposal, but several stand out as potentially offering useful guidance for the most effective use of the program's resources, of which a few examples are listed below. No alternative basis that meets a threshold of Best Available Science for the program's past and current sponsored projects (e.g., the current open solicitation for the \$3M "Trash Free Waters Art and Slogan Competition" [EPA-R4-GM-2024-TFWASC]) is evident.

Somer examples of recent papers with potential relevance to the current proposal, from a Web of Science search on "trash" and "pollution," 2020–2024:

Baechler, Britta R., De Frond, Hannah, Dropkin, Lisa, Leonard, George H., Proano, Leonardo, Mallos, Nicholas J. 2024. Public awareness and perceptions of ocean plastic pollution and support, for solutions in the United States. FRONTIERS IN MARINE SCIENCE 10, doi 10.3389/fmars.2023.1323477.

Badawi, Adel Nasser, Ahmed, Tarek Sayed Adelazim, Alotaibi, Eid Kaadan, Abbas, Ihab Saad, Ali, Ehab Rabee, Shaker, Eman Sarhan M. 2024. The Role of awareness of consequences in predicting the local

tourists' plastic waste reduction behavioral intention: The extension of planned behavior theory. SUSTAINABILITY 16, doi 10.3390/su16010436.

Greeves, Scott. 2023. Tracking Trash: Understanding patterns of debris pollution in Knoxville's urban streams. SUSTAINABILITY 15, doi 10.3390/su152416747.

McLaughlin, Karen, Mazor, Raphael, Sutula, Martha, Schiff, Kenneth. 2023. Regional assessment of trash in Southern California coastal watersheds, United States. FRONTIERS IN ENVIRONMENTAL SCIENCE 11, doi 10.3389/fenvs.2023.1210201.

Nikiema, Josiane, Asiedu, Zipporah. 2022. A review of the cost and effectiveness of solutions to address plastic pollution. ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH 29, doi 10.1007/s11356-021-18038-5.

Bhuyan, Md. Simul, Venkatramanan, S., Selvam, S., Szabo, Sylvia, Hossain, Md. Maruf, Rashed-Un-Nabi, Md., Paramasivam, C. R., Jonathan, M. P., Islam, Md. Shafiqul. 2021. Plastics in marine ecosystem: A review of their sources and pollution conduits. REGIONAL STUDIES IN MARINE SCIENCE 41, doi 10.1016/j.rsma.2020.101539.