PROGRAM AUDIT OF VIRGINIA AQUATIC RESOURCES TRUST FUND ENVIRONMENTAL LAW INSTITUTE

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Program Audit Overview

The Environmental Law Institute (ELI) has conducted an audit of the operations of the Virginia Aquatic Resources Trust Fund (VARTF) in accordance with the requirements of 33 CFR Part 332 and 40 CFR Part 230, Subpart J (the "Rule") and the 2019 VARTF Program Instrument.

VARTF is an in-lieu fee program (ILF) operated by The Nature Conservancy (Conservancy) that provides compensatory mitigation for unavoidable permitted impacts to waters of the United States under the federal Clean Water Act and the Rivers and Harbors Act, and waters of the Commonwealth under Virginia state laws and regulations including the Virginia Water Protection Permit Program and the Virginia Marine Resources Commission's tidal wetlands regulations. The Program operates under a Program Instrument that was approved in July 2019 by the Norfolk District of the U.S. Army Corps of Engineers and the Virginia Department of Environmental Quality, which amended and replaced the Program Instrument dated July 2011, implementing the requirements of the Rule.[1]

The 2019 VARTF Program Instrument provides that the Program "shall be audited once each five years by an independent auditor" including a "program audit." 2019 Instrument para. 19.C.1. This audit covers the program activities of the VARTF from January 1, 2016 through December 31, 2021, and reviews VARTF's conformance to the program criteria established by the 2011 and 2019 Instruments and the Rule for the period covered by the audit.

Elements of the Program Audit

The purpose of the audit is to determine whether the VARTF can document its substantial compliance with required program elements, whether material representations made in its reports for the activities subject to the audit are supported by documentation, and whether any procedures or practices warrant additional attention or revision.

ELI conducted this audit using program audit procedures. These include review of the credit ledger and supporting documentation, and review of mitigation project submittals. We examined records provided by the Program and VARTF records maintained by the Corps in its Regulatory In-lieu Fee and Bank Information Tracking System (RIBITS). We examined the VARTF credit ledger spreadsheet; the agreed standard operating procedures (SOP) for VARTF projects; project tracking documents; documents pertaining directly to the specific mitigation projects; primary credit sale and credit release documentation; and the VARTF annual reports 2016-2020. We also reviewed internal program operations.

In accordance with our program audit agreement with the Conservancy, as approved by the Interagency Review Team (IRT), ELI reviewed the following program elements for conformance with the Rule, the applicable Virginia regulatory requirements, and the 2019 Program Instrument:

[1] The July 2011 Program Instrument replaced the Memorandum of Understanding dated August 18, 1995, as amended December 18, 2003, which previously governed VARTF's operations.

- Maintenance of a system for accurately tracking the calculation of credits in relation to projects, the debit or sale of both advance and released credits, and financial transactions in relation to credits between the Conservancy and permittees.
- Presence of determinations that a project meets the relevant geographic service area, including documentation supporting compliance with the Compensation Planning Framework.
- Completion of project-specific land acquisition and initial physical and biological improvements by third full growing season after the first advance credit in the service area is sold or debited (including determination of current deficits and identification of points of delay in any service areas where not satisfied; identification of practices and plans that address timeline effectively).
- Credit cost calculation system that reflects full cost accounting; methodology for evaluating and updating credit fees.
- Procedures for Requests for Proposals to satisfy liabilities.
- Presence of recorded land protection documents for land associated with mitigation sites.
- Presence of long-term management and maintenance plan for each mitigation project.
- Satisfaction of program reporting protocols (*i.e.*, quarterly financial statements, annual ledger report, individual mitigation project ledgers, and any other reporting required by the U.S. Army Corps of Engineers, Norfolk District (Corps), or the Virginia Department of Environmental Quality (Va. DEQ)).
- Review of standard operating procedures.

Each element of the program audit is discussed below. For each element, we first state the relevant requirements. Then we identify and describe the records we reviewed to determine conformance of the VARTF program to these requirements. For each element we present findings. (Note that ELI has also reviewed the findings of the previous 2016 program audit and has included any observations from that audit where relevant to the current program audit).

Maintenance of a system for accurately tracking the calculation of credits in relation to projects, the debit or sale of both advance and released credits, and financial transactions in relation to credits between the Conservancy and permittees.

Section 19 B. of the 2019 Program Instrument requires the Conservancy to establish and maintain a system to track "debiting of Credits from Sites, the debit or sale of Credits (Advanced or Released), and financial transactions between the Conservancy and permittees." Credit transactions are to be tracked across the entire program, within each basin, for each resource type (stream, non-tidal wetland, and tidal wetland), and separately for each mitigation project.[2]

Capability of credit ledger system

ELI reviewed the Conservancy's credit ledger to ascertain how VARTF tracks credit availability, liability, and transactions, and to determine that the information in the ledger is supported by

[2] These requirements also applied under Section IV.E of the 2011 Instrument.

documentation. VARTF maintains a credit tracking system – an excel spreadsheet ledger – to track credit reservations and sales, including advance credit sales, the release of credits, and remaining liabilities. The credit ledger tracks liabilities (advance credits) and released credits by basin and service area as well as resource type: Non-Tidal Wetlands (NTW), Tidal Wetlands (TW), and Streams.

The ledger allows VARTF to maintain and report the following data:

- Liability: All liabilities accepted (i.e., credits sold) by the Trust Fund. Credit liability is tracked by resource type (NTW, TW, Streams) and whether credits can be used to satisfy no-net-loss (NNL) liability (i.e., restoration credits) or not (i.e., preservation credits). For wetlands NNL liability equals the number of acres impacted, for streams NNL is ½ the total credit liability.
- Released Credits: The VARTF Instrument defines released credits as "Potential Credits that have been released by the Chairs [of the IRT] in accordance with the Site's Credit Release Schedule." 2019 Instrument 6 5c. NNL credits may be used to satisfy NNL liability. Preservation credits must be paired 1:1 with credits that address NNL. Released credits are applied first to existing liabilities (pre-instrument liabilities and advance credits). Once liabilities in a service area are met the remaining credits generated by a project can be released for sale.[3]
- Released Credits Available: These are the released credits generated by a mitigation project minus the released credits applied to liability, and minus any sold released credits.
- Advance Credits: Advance credits are sold in service areas with no (or insufficient) released credits available to meet the liability at the time of the sale. Advance credits are defined in the Program Instrument,[4] which establishes caps on advance credits available for each basin and resource type and a process for evaluating and updating the cap as necessary "to offset compensatory mitigation needs in the Commonwealth of Virginia." 2019 Instrument 17 A For each basin and resource type, the advance credits available equal the advance credit cap amount minus the advance credits sold.
- Preservation Credits Not Yet Available: These are preservation credits that have met success criteria and are ready for release but must be paired with NNL credits to be released. The credit ledger does not identify paired credits in all cases. In some cases, these are reflected in notes to the project tabs. In other cases, there are no notes, and the annual report lists as paired credits the sum of released preservation credits reported on the project tabs.

The credit ledger includes tabs for each individual mitigation project approved in each basin in which VARTF works. The individual project tabs track released credits and withdrawn (or satisfied) credits by resource type (NTW, TW, Stream). The ledger also includes an Advance Credit (AC) tab by basin.

- Individual project tabs: The project tabs specify the project ID, project name, basin, HUC, and service area HUCs for each project. Separate line items distinguish credit releases and individual credit withdrawals, and each is recorded by resource type (NTW,

[3] Because mitigation project service areas are often smaller than an entire geographic service area (or basin), released credits within a basin may not be able to satisfy all liabilities within the full basin.
[4] "Credits of an approved in-lieu fee program that are available for sale prior to being fulfilled in accordance with an approved Site Development Plan." Instrument 6 5c

TW, Stream). Permit number, applicant name, locality, date, payment amount, basin, and HUC are recorded for each individual credit withdrawal. Impacts, impact type, and restoration and preservation credits approved/required are recorded for withdrawal. Summary tables for credits available, promised credits, and released credits are included at the top of each sheet.

- Advance credit tab for each basin: Each basin has a tab tracking the approved (and unsatisfied by an approved project) advance credits for the basin. Summary tables at the top of the sheet show the total advance credits released for each basin, the available balance of advance credits, as well as promised advance credits. Each advance credit tab shows the sales of advance credits in the basin, providing data on permit number, applicant, date of transaction, locality, basin, physiographic province, and HUC for each line item. The number of advance credits sold is recorded under NTW, Stream, or TW. The AC sheet does not distinguish NNL from preservation credits.

The ledger includes summary sheets that roll up the data on impacts(liability) as well as released and remaining credits by project. The summary tabs include:

- Impacts tab: The impacts tab rolls up information from the revenue and project tabs. By basin it totals $ received, sum of impacts, sum of restoration (NNL) credit drawdown, sum of total credits required, sum of remaining NNL credit liability, and sum of remaining preservation credit liability.
- Revenue Tabs: The revenue tabs are maintained for NTW, TW, and Streams. Each of these tracks all credit drawdowns/liabilities, including advance credits, released credits, and unmet credit liability. The columns are permit number, applicant, locality, TNC letter date (assuming liability), fund contribution (sales price), basin, HUC, physiographic province, impacts, resource type (Cowardin), (NNL) restoration credit drawdown, preservation credits drawdown, the designated restoration credit project ID (individual project or AC), preservation credit project ID, total credits required, no net loss met (y/n), preservation credits mitigated (y/n/partial), impacts mitigated (y/n/partial), remaining NNL credit liability, remaining preservation credit liability, and advance credit sale.
- Project Summary Tab: The project summary tab is organized by mitigation project. It summarizes the released credits (restoration and preservation), advance credit cap, promised credits (restoration and preservation), credits allocated/sold (restoration and preservation), promised advanced credits, credits allocated/sold (restoration and preservation), released credits balance (restoration and preservation), and advance credit balance for NTW, Stream, and TW. Each project line includes basin, project name, project ID, project HUC, and service area HUCs.

VARTF also tracks requests for credits and quotes for prices:

- Quotes Tabs: VARTF records promised credits as requests for reservations of credits that are received from applicants. Separate tabs are maintained for each resource (NTW, TW, and Streams). Columns include quote expiration date, permit number, applicant, locality, TNC letter date, fund contribution (sales price), basin, HUC, physiographic province, impacts, resource type (Cowardin), restoration credit drawdown, preservation credits drawdown, the designated restoration credit project ID (individual project or AC), preservation credit project ID, total credits required, no net loss met (y/n), preservation

credits mitigated (y/n/partial), impacts mitigated (y/n/partial), remaining NNL credit liability, remaining preservation credit liability, and paid/not-paid/promised/expired.

VARTF does not maintain a written SOP or process document for data entry and credit tracking. The data entry process remains the same as per the description given us for the 2016 audit:

> Upon inquiry from an applicant, each potential sale is logged in as "promised credits" in the Quotes tab for each resource type (NTW, Streams, TW) as well as in the individual project tab or advance credit tab for each basin (depending on whether or not there are released credits available in the basin: where no credits are available for sale the project is entered into the advance credit tab). Promised credits are distinguished on the quotes and AC or project tabs as "promised." If the promised credits are not paid within 90 days, the quote expires, and the status of the credit is changed to expired on the quotes tab and the line item is deleted from the AC tab or individual project tab. If the credits are paid, the item gets marked as paid on the quotes tab and entered into the revenue tab for the resource (NTW, Streams, TW). The item is then also marked as paid on the AC or individual project sheet and the date is updated to reflect the date of payment. The transaction is only then also entered into the budget ledger, used to track program revenues and project and program expenses.
>
> When released credits become available to satisfy an advance credit liability, the transaction is entered into the individual project tab and removed from the advance credit tab. The line item is then also updated in the revenue tab to reflect the liability was satisfied or partially satisfied and the ID of the project used to satisfy the liability.

Findings
The credit tracking system maintained by VARTF is capable of tracking credit liability and availability across the entire program, within each basin and service area, and separately for each Mitigation Project as required by the Program Instrument(s). We note, as in 2016, that VARTF could benefit from written SOPs for data entry.

Accurate credit tracking using the system

The credit tracking system must accurately track the debit and sale of credits, production and release of credits, and financial transactions related to credits. 2019 Instrument 19 B We obtained and compared the supporting documentation (credit sale receipts and credit release approval) with ledger entries to document that the data in the ledger were entered and updated correctly with each transaction as per the procedures above. We also compared the data in the ledger with the data reported in the tables in the 2020 VARTF Annual Report (the last available to us for this audit).

Specifically, we did the following:

- We reviewed credit sale receipts from 2016 – 2021 (posted to RIBITS and provided by the Program) to document whether each credit sale was entered correctly into the revenue, advance credit, and project (as appropriate) tabs. We also reviewed credit

release approvals from 2018-2020[5] posted to RIBITS and provided by the Program to ensure individual project tabs and summary tables (project summary and impacts tabs) tracked releases accurately.

Findings
Primary documents on credit sales and credit releases were accurately reflected in the data entered on the VARTF credit ledger.[6] Section 19 B of the Instrument also requires that "Within five (5) business days after each Credit sale, the Conservancy shall upload to RIBITS copies of the completed Credit Sale Statement (Exhibit L of the SDP) and the bill of sale and update the Site ledger in RIBITS to reflect the transaction." We found that many of the credit sale receipts were posted to RIBITS. However, 49 NTW, 14 stream, and 45 tidal credit sale receipts were not posted to RIBITS. All of these receipts were maintained by VARTF and were provided by the Program for our review, enabling us to document maintenance of the credit ledger consistent with the credit transactions.

- We compared the data in the *summary tables* in the ledger (impacts and project summary tabs) with the data recorded in the revenue and project tabs.

Findings
Except for a few apparent data-entry or record-keeping errors, noted below, the summary tables (project summary and impacts tabs) are consistent with the individual project and revenue tabs.

- We found a few minor typos or instances where the AC tab had not been updated when credit liabilities were satisfied. These are listed here: the NW-AC tab includes .17 nontidal wetlands credits for permit #12-0298 (2/20/13), but the NTW revenue tab indicates the total credits required for the permit was 0.12 credits. In the PO basin, permit WP4-19-1621 in the revenue tab lists 2.23 nontidal wetlands credits, but the AC tab lists 2.3 credits. According to the credit sale receipt it should be 2.23 credits. In the CH basin there is a typo in CH-5, where permit number 07-V2519 says 1.623 but it should be 1.632. In the Streams revenue tab, permit number NAO2007-03509 shows 116 credits remaining, but the TN-AC tab shows 174 credits for that permit. The TN-AC tab should show 116 remaining credits. Similarly, the MJ-AC tab lists NTW advance credits out as 0.48 for permit NAO-2019-01753 and a total of 0.98 credits for permit WP4-19-1639. However, the revenue tab lists only half of that liability in the remaining credits column (NAO-2019-01753 at 0.24 credits and WP4-19-1639 at 0.49 credits). The advance credits out in the AC tab should match the remaining credits in the revenue tab for these permits. Also, in the MJ basin, permit 02-Q0089 shows a .452 total credit drawdown in the revenue tab but .466 credits were listed for this permit in the MJ-1 tab.
- We noted a few instances (associated with pre-instrument liabilities) where the mitigation project entered in the revenue tab is inconsistent with what is listed in the project tabs. For instance, the NTW revenue tab lists UJ-1 as satisfying preservation liability for

[5] Tables of approved credit releases are provided in each annual report starting in 2018. We used these as a further basis for our review.
[6] There did appear to be some typos in the credit sale receipts themselves (seem to be cut and paste errors, such as permit numbers or credit numbers not updated in the title line). This did not materially affect entry of data into the ledger.

permit 01-V2172, but the permit liability and credits withdrawn are in the York River basin, the YK-2 project tab. Similarly, the NTW revenue tab shows permit 02-V0411 had its preservation credits satisfied by UJ-1, but the permit liability is in the Rappahannock basin and the associated withdrawals of credits are included in the RP-11 and RP-8 project tab.

These do not materially affect the summary presentation of the data.

- We compared the data in the credit ledger to the tables in the 2020 VARTF Annual Report. This step is to document that publicly available information is supported by the ledger entries, which are supported by documentary evidence.

Findings:
In general, we were able to align credit numbers reported in the annual report with the credit ledger. We found inconsistencies in the current liability reported in the annual report compared to the ledger in two basins. The 2020 Annual Report indicates that the current NTW liability in the UJ basin was 8.93 credits and that the 3.68 credits that have been released in the basin have been applied to total liability. However, the NTW revenue tab in VARTF's ledger has not been updated to show that all the 3.68 released credits have been matched with permit liabilities. (The UJ-1 project tab correctly indicates that 3.68 credits have been released, but only 1.3795 permits and associated liabilities have been transferred by VARTF to the project tab.) Similarly, in the MJ basin, the annual report says that the current liability is 9.22 credits and that the 37.69 released credits have been applied to total liability. However, the MJ-1 project tab indicates that 2.31 of those released credits are not yet available to pair. These credits are released conservation easement and buffer credits, according to the 2020 Annual Report. We find that, with these exceptions, the Annual Report is supported by the records maintained by the Fund.

Presence of determination that a project meets the relevant geographic service area, including compliance with Compensation Planning Framework

Section 11 of the 2019 Program Instrument references the "VARTF Comprehensive Planning Framework" (Exh. A, as originally prepared in 2009). Section V.A.2. of the previous 2011 Program Instrument provided that "mitigation project proposals will be based on the Compensation Planning Framework," as required by 33 DFR 332.8(c).[7]

Section 11 of the 2019 Instrument further provides that each mitigation site "will be evaluated using the most current version of the "Site Selection Criteria Guidelines" and that the results "will be included in each Site-specific SDP [Site Development Plan]." According to section 9.B. of the 2019 Instrument, each SDP must include an exhibit that documents the "site selection criteria."

[7] On September 23, 2021, the IRT approved an updated Compensation Planning Framework (March 2021) for use by VARTF. The new CPF uses the Mitigation Priority Area Conservation Tool and integrates resiliency science and landscape connectivity. (Tier 1 – TNC regional priorities, including resilient and connected systems; and Tier 2- partner priorities, Conserve Virginia and already-protected lands). These priorities are overlaid on each of the VARTF geographic service areas.

We reviewed VARTF's recent proposed sites for the presence of a determination that project meets the requirements of the Comprehensive Planning Framework for the relevant geographic service area. We selected recent signed SDPs for review to test compliance with this requirement.

Findings
We determined that the requirements were met. For example, the SDP for LJ-14 (December 2019) states:

> E. Mitigation Site Selection: The Mitigation Site area has been evaluated in terms of the VARTF Offsite Mitigation Location Guidelines (dated February 12, 2008, or subsequent versions) and the Program's Compensation Planning Framework. The results of the evaluation are described in Exhibit E of this SDP.

Exhibit E includes a number of checklist items. Documentation of the evaluation is most clearly represented in item C.11. "Does it follow the objectives and prioritization strategy of The Nature Conservancy's Watershed Approach to Compensation Planning Framework? Yes _x No __ Describe: See pages 37-39 of "The Nature Conservancy's Watershed Approach to Compensation Planning for the Virginia Aquatic Resources Trust Fund" – Exhibit A of the Program Instrument."

Likewise, the SDP for NW-3 (June 2020), Exh. E says: "C.11. Does it follow the objectives and prioritization strategy of The Nature Conservancy's Watershed Approach to Compensation Planning Framework? Yes _x__ No __Describe: See pages 68-72 of "The Nature Conservancy's Watershed Approach to Compensation Planning for the Virginia Aquatic Resources Trust Fund" –Exhibit A of the Program Instrument."

We found similar documentation for each SDP we reviewed. We further determined that each mitigation site proposal (in advance of SDPs) also included evaluation with respect to implementation of the Compensation Planning Framework, showing adherence to the requirements (e.g., MJ-13, Feb 2, 2021 proposal; UJ-4, Oct 23, 2018 proposal).

Advance Credits and Third Full Growing Season

Sale of advance credits (ACs) by in-lieu-fee programs is authorized, subject to certain requirements, 33 CFR 332.8(n). 2019 Instrument 17.A, and Section V.C. of the 2011 Program Instrument, provide for the specification of the number and type Advance Credits available within each program service area. Exhibit B of each Instrument states the initial number of advance credits approved for each area. These allocations were adjusted by the Corps in 2019 and again in 2021, upon application by VARTF.

Each of the Instruments defines the number of Advance Credits of each resource type (NTW, TW, Stream) for 13 basins or "Program Geographic Service Area" – Atlantic Ocean, Chesapeake Bay, Chowan, Lower James, Middle James, Upper James, New River, Potomac River, Rappahannock River, Roanoke River, Shenandoah, Tennessee River, and York River.

Both the Rule and the Instruments require that VARTF must complete land acquisition and "initial physical and biological improvements" by the third full growing season after the *first* advance credit is sold in each service area, unless the district engineer determines that more or less time is needed. 33 CFR 332.8(n)(4). Furthermore, as released credits are produced by in-lieu fee mitigation projects, they must be used to fulfill advance credits already provided in the specified service area before remaining released credits can be sold or transferred. 33 CFR 332.8(n)(3).

Review

We reviewed the VARTF records relating to sale of advance credits and satisfaction of regulatory requirements for land acquisition and initial physical and biological improvements. Consistent with standard practice, we have interpreted the third full growing season requirement to mean that any advance credits sold after the start of any growing season would mean that the regulatory requirement would be due by the end of three *subsequent* full growing seasons. Growing season is defined in the 2019 Instrument at section 6.12 with reference to the regional supplements to the USACE Wetland Delineation Manual. In order to establish a consistent audit standard, we used the period February 21-December 15 each year, consistent with the prior program audit.

Also consistent with the prior program audit, we determined that the requirement to acquire a mitigation site and commence improvements must be characterized by the ability of the site to eventually satisfy the advance credits. Thus, the site must be intended to produce credits of the types needed to satisfy the advance credits sold – tidal wetlands, nontidal wetlands, and stream credits, as defined in the Instrument.

The requirement is satisfied at a mitigation project site if there is evidence of both land acquisition and of physical/biological improvements. The latter can only occur after IRT approval of a Site Development Plan (SDP). This means that if there is no SDP for a project site, we cannot find that the requirement has been met. However, for *preservation-only* projects, we deemed that evidence of land acquisition as sufficient, as there are not physical or biological improvements. (Nevertheless, it is important to note that there is no assurance that the Corps will recognize or release preservation credits until approval of the SDP for a preservation site).[8]

Based on these parameters we identified all VARTF service areas with advance credit sales. We determined what steps the Program had undertaken to satisfy the requirements.

Findings

The following table shows whether the third full growing season requirement was met for each service area in which advance credits were sold. We identify for each service area when the obligation was triggered, the year in which the 3d full growing season ends, and whether or not VARTF has documentation that the obligation was met on time (yes/no). In determining whether the obligation was met on time we identified relevant mitigation projects addressing the

[8] Under the VARTF instrument, preservation-only credits can only be used together with no-net-loss credits, which must be generated from some suitable site in the geographic service area. Thus, such service areas should also have no-net-loss projects. This is relevant to the Program's ultimate ability to satisfy liabilities in each service area.

obligation both by resource type and basin (HUC-8). Some of the service areas where the third growing season requirement has been met on time were service areas in which the acquisition and initial improvements on the project predated the first sale of Advance Credits. In some cases, these projects were initiated to meet liabilities under VARTF's pre-rule Program but were slated to generate credits available to address advance credits that were sold subsequently in the service area. We interpreted these as meeting the requirement, as these subsequent credits would be available to address advance credit liabilities, just as with a newly initiated mitigation project.

Third growing season overview by Service Area and HUC-8

Geog. Service Area	Resource Type Authorized AC/ Total AC Sold	Basin HUC-8	First Advance Credit Sale	3d full growing season ends	Timely 3d season acquis/ improv?
AO	NTW 10/5	2040303 *2060010*[9] 2040304	10/30/2012 1/10/2013 10/13/2015	2015 2015 2018	Yes Yes No
	TW 2/0.6	2040303 *2060010*[10] 2040304	10/24/2012 11/11/2011 8/5/2016	2015 2014 2019	No No No
CB	NTW 20/16.9	2080108 2080111 2080102	11/11/2011 3/6/2014 10/4/2018	2014 2017 2020	Yes Yes yes
	TW 5/1.4	2080202 2080108 2080110 2080101	3/10/2014 10/8/2014 4/10/2017 6/15/2020	2017 2017 2020 2023	No No No N/A
	ST 5000/1685	2080108	9/12/2014	2017	No
CH	NTW 5/5	3010204 3010205 3010201 3010202	12/8/2011 12/10/2012 4/21/2015 11/15/2019	2014 2015 2018 2022	No No Yes N/A
	TW 2/.065	3010205	12/10/2012	2015	No
	ST 5000/272	3010205 3010201 3010202	2/26/2015 5/8/2015 5/1/2019	2018 2018 2022	No No N/A
LJ	TW 2/1.67	2080208	12/11/2014	2017	Yes
	ST 10000/6223	2080206 2080208	9/24/2011 9/30/2011	2014 2014	No No
MJ	NTW 20/19.59	2080205 2080204 2080203 2080207	12/18/2018 6/12/2019 8/22/2019 6/10/2020	2021 2022 2022 2023	No N/A N/A N/A
	ST 5000/345	2080204 2080207	7/13/2020 8/6/2021	2023 2024	N/A N/A
UJ	NTW 10/7.32	2080201 2080203	5/2/2013 10/6/2020	2016 2023	No N/A
	ST 5000/229	2080202	1/29/2021	2023	N/A

[9] HUC 02060010 was reclassed as 02040303 in 2015.
[10] HUC 02060010 was reclassed as 02040303 in 2015.

NW	NTW 10/4.99	5050001 5050002	3/30/2012 10/3/2012	2015 2015	No No
	ST 5000/4529	5050001 5050002	5/24/2012 10/3/2012	2015 2015	Yes Yes
PO	NTW 45/9.73	2070010 2070008	11/6.2018 1/10/2019	2021 2021	No No
	TW 2/1.79	2070020 2070011	2/13/2017 10/8/2013	2019 2016	No No
	ST 50000/10977	2070011	11/15/2019	2022	N/A
RP	TW 2/.036	2080104	4/17/2013	2016	No
	ST 7500/4554	2080103 2080104	8/4/2011 9/8/2016	2015 2019	No Yes
RO	NTW 10/4.8	3010101 3010103 3010105 3010106	5/2/2012 4/8/2013 3/11/2021 5/21/2021	2015 2016 2024 2024	Yes No N/A N/A
	ST 10000/4828	3010106	2/13/2015	2017	No
SH	NTW 10/7.79	2070004 2070007	7/2/2014 8/10/2016	2017 2019	Yes No
	ST 10000/2143	2070004 2070005	7/2/2014 7/13/2021	2017 2024	Yes N/A
TN	NTW 5/2.28	6010101 6010102 6010205	5/24/2012 9/21/2012 4/8/2014	2015 2015 2017	Yes Yes Yes
	ST 5000/3316	6010101 6010205 6010102	5/24/2012 5/30/2012 10/7/2013	2015 2015 2016	No No No
YK	TW 2/1.079	2080107 2080106	10/18/2018 11/17/2020	2021 2023	Yes[11] Yes
	ST 5000/115	2080106	5/11/2020	2023	N/A

We further examined the service areas in which the requirement was *not* met on time. With respect to each of these service areas we reviewed VARTF's records to determine whether a relevant project thereafter completed acquisition and initial physical and biological improvements (***late project***). Where advance credit obligations were met through purchase of bank credits, we note this on the table as well.[12] In addition, we identify service areas in which a proposed mitigation project is pending but for which VARTF has not yet completed acquisition and initial physical and biological improvements (*pending project*). Where possible we indicate the procedural stage of the proposed project. Where a single project is listed for a geographic service area it may be able to address more than one HUC-8 within the area.

[11] There were also small sales of advance credits in 02080105 (Jan. 25, 2012), timely addressed by YK-5.

[12] We also identify relevant requests for proposals in service areas where the third growing season obligation has not been met.

Projects addressing service areas where 3d full growing season requirement not met on time

Geog. Service Area	Advance Credit Type	Basin HUC-8	First Advance Credit Sale	3d full growing season ended	**Mitigation Project Status** *Pending project* ***Late project***
AO	NTW	2040304	10/13/2015	2018	*AO-7 (SDP submitted 2020)*
	TW	2040303 2060010 2040304	10/24/2012 11/11/2011 8/5/2016	2015 2014 2019	***AO-2 pres. credits applied 2040303, 2060010 (2017)***[13] *AO-8 (pre-app submitted 2020)*
CB	TW	2080202 2080108 2080110	3/10/2014 10/8/2014 4/10/2017	2017 2017 2020	*CB-17 (SDP revisions 2021)*
	ST	2080108	9/12/2014	2017	RFPs issued 2018, 2020 (no response)
CH	NTW	3010204 3010205	12/8/2011 12/10/2012	2014 2015	*CH-18 (IEL 2019)*
	TW	3010205	12/10/2012	2015	***CH-12 pres. credits applied (2017)***[14]
	ST	3010205 3010201	2/26/2015 5/8/2015	2018 2018	***CH-19 stream credit purchases applied (2020)***
LJ	ST	2080206 2080208	9/24/2011 9/30/2011	2014 2014	***LJ-16 stream credit purchase (2018)*** ***LJ-11 (SDP 2015), LJ-14 (SDP 2019)***
MJ	NTW	2080205	12/18/2018	2021	*MJ-13 (Public Notice 2021)*
UJ	NTW	2080201	5/2/2013	2016	*UJ-4 (IEL 2019*
NW	NTW	5050001 5050002	3/30/2012 10/3/2012	2015 2015	***NW-3 (SDP 2020, constr. 2021)***[15]
PO	NTW	2070010 2070008	11/6.2018 1/10/2019	2021 2021	*PO-9 (IEL 2020)*
	TW	2070020 2070011	2/13/2017 10/8/2013	2019 2016	RFPs in 2019 (no resp), 2020 (no resp) ***PO-6 – pres. credits applied (2017)***[16]
RP	TW	2080104	4/17/2013	2016	***RP-1 -- pres. credits applied (2017)***[17]
	ST	2080103	8/4/2011	2015	***RP-15 (SDP 2021)***
RO	NTW	3010103	4/8/2013	2016	***RO-11 bank credit purchase (2020)***
	ST	3010106	2/13/2015	2017	*RO-9 (SDP 2021)*
SH	NTW	2070007	8/10/2016	2019	*SH-6 (NTW comp'nt removed 2021)*
TN	ST	6010101 6010205 6010102	5/24/2012 5/30/2012 10/7/2013	2015 2015 2016	***TN-10 (SDP 2018)***[18] ***and*** ***TN-11 (SDP 2018)***[19]

We find no instances in which the 3d growing season requirement is a "No" where there is not a relevant mitigation site proposed or pending. This indicates that the program has implemented procedures to develop sites in each service area in which it has sold Advance Credits.

[13] IRT in 2017 approved 0.6 preservation credits from AO-2 to offset previous NNL liability.
[14] IRT in 2017 approved 0.14 preservation credits from CH-12 to offset 0.07 NNL liability.
[15] Project was proposed in 2015.
[16] IRT in 2017 approved 0.71 preservation credits from PO-6 to offset previous 0.41 NNL liability.
[17] IRT in 2017 approved 0.072 preservation credits from RP-1 to offset previous 0.036 NNL liability.
[18] Project was proposed in 2015.
[19] Project was proposed in 2016.

Identification of Mitigation Projects Needed to Satisfy Advance Credit Liabilities

While the 3-growing season requirement under the regulations applies to the *first sale* of advance credits, the program has a continuing obligation to timely identify and carry out projects sufficient to satisfy *all of its advance credit liabilities*. We examined whether VARTF has procedures in place to determine where it has liabilities, and to identify the need for development of projects capable of fulfilling these liabilities. This is a key requirement for any in-lieu fee program.

Findings
We determined that VARTF does have such procedures. In the decade following the 2011 Instrument, VARTF instituted a system of tracking and reporting on its credit fulfillment needs broken out by geographic program area and resource type.

In each of its annual reports, VARTF has included tables showing credit liabilities and availability of release credits for each service area. In these tables, VARTF has also summarized "potential credits" from approved projects, defined as credits that "may be released if they meet success criteria."

Beginning with its 2018 annual report, VARTF began including information summarizing its outstanding liabilities by service area and resource type in order to more clearly identify basins "where a potential site has not been identified, or a proposed site has yet to be issue an Initial Evaluation Letter." Beginning with the 2019 annual report, this information was presented in a separate section of the report, entitled "Project Identification Needs." This section identifies service areas and resource types within those service areas for which liability remains and for which mitigation projects were not currently in development.

We reviewed VARTF's approach and its identification of the needs for mitigation projects to meet its liabilities. We find that its tabulation of needs is consistent with the information in the ledger. We also find that the information is being used to support VARTF's identification of sites.

For example, in its 2018 annual report, VARTF identified the need to identify and develop mitigation projects in the following service areas: Atlantic Ocean (tidal wetlands), Chesapeake Bay (streams), Chowan River (streams and nontidal wetlands), Lower James (streams), Middle James (nontidal wetlands), Upper James (nontidal wetlands), Potomac (nontidal wetlands), Roanoke (nontidal wetlands), Shenandoah (nontidal wetlands), Tennessee (nontidal wetlands). Certain of these needs were subsequently met by project identification and/or purchase of credits, even as additional liabilities were created by advance credit sales.

In the 2020 annual report, VARTF identified needs for projects in Atlantic Ocean (tidal wetlands), Chesapeake (streams), Chowan (streams), Lower James (streams), Middle James (streams and nontidal wetlands), New River (nontidal wetlands), Potomac (tidal wetlands, nontidal wetlands, and streams), and York River (streams).

Our review of the credit ledger shows that as of the end of 2021, there are needs for project identification and/or credit purchases in the following service areas: Atlantic Ocean (tidal wetlands), Chesapeake (streams), Chowan (streams), Lower James (streams), Middle James (streams and nontidal wetlands), Upper James (streams), New River (nontidal wetlands), Potomac (tidal wetlands, nontidal wetlands, and streams), Shenandoah (nontidal wetlands), and York River (streams).

It is clear that, over the audit period, identification of sites sufficient to meet needs for tidal wetland credits in the Atlantic Ocean service area, stream credits in the Chowan, nontidal wetlands credits in the Middle James, and tidal wetlands credits in the Potomac River geographic service areas has been challenging.

Credit cost analysis

Both the Rule (33 CFR § 332.8(o)(5)(ii)) and the Instrument require that the cost per credit be based on full cost accounting. The cost calculation must reflect all "expenses related to selection, design, acquisition, implementation, monitoring, management, and protection, as well as costs associated with Program operation and management" and also consider the "the cost of providing financial assurances that are necessary to ensure successful completion of Sites and may reflect other factors as deemed appropriate by the Conservancy, the USACE and/or DEQ." 2019 Instrument 19.A.

VARTF uses a credit price analysis tool – excel spreadsheet – to track credit costs and establish fees by basin and credit type (NTW, TW, and stream). The spreadsheet includes a summary tab and a tab for each basin. Each basin tab lists all projects (including bank purchases) in the basin and tracks information on project id, project open/closed, project name, project type, funds authorized (funds authorized reflect actual money spent for closed projects, costs of open projects are subject to change as projects are finalized), and total cost/credit. For each credit type, the total full cost across projects is determined by totaling funds authorized across all projects in the basin and adding miscellaneous general costs (fixed),[20] staff costs, overhead costs, new bank costs, and a 15% contingency fee.[21] The cost per credit in the basin is then determined by dividing the total full cost by the total number of credits anticipated or created. The numbers in the spreadsheet are updated as funding is approved.[22]

The summary tab in the tool includes information on credit cost, fee schedule, and recommended changes by credit type and basin. Credit cost is what it has cost to create credits in each basin, based on budgeted and actual costs and the number of credits anticipated or released. The fee schedule is the fees that are charged in the basin. The recommended changes column indicates the last round of changes.

[20] Miscellaneous general costs are funds spent on staff prior to 2011 (For the period of 1995-2011, program staff costs were not tracked by basin or resource historically). Staff costs since 2011 have been allocated by basin and by resource type based on the number and intensity of projects over the year

[21] Plus 15% of overall expense in a buffer in the event that any of the proposed projects included in the analysis for that basin run over budget.

[22] A separate spreadsheet is used to budget new projects. The budget costs calculated are then entered into the fund authorized column in the credit cost analysis tool

Per the Instrument, VARTF will evaluate the credit fee annually and adjust fees in coordination with the IRT "as deemed necessary to reflect the full cost accounting." 2019 Instrument 19.A. The program reported that is has only requested fee updates from the IRT 2 or 3 times. A fee change was made permanent in the Potomac basin in the last round of changes, recent changes were also made to stream credit fees.

Findings
ELI reviewed the Program's credit price analysis tool and find that it provides a sufficient basis for recommended fees based on the analysis of historical project costs.

Generally, recommended fees are higher than the calculated costs across basins and credit types. According to Program staff, the fees are set to ensure that the Program is collecting enough funds to complete the work necessary to offset liabilities in each Basin and to account for variation in project costs over time (many of the program's historical projects cost much less than current projects and can bring down average cost per credit) and for projects where money was expended but the project did not create the number of credits expected[23] or for projects that could skew cost per credit calculation.[24]

Requests for Proposals (RFPs) for credits

The 2019 Instrument provides that if VARTF has not identified a suitable site to offset an Advance Credit sale within two years of the sale, it will release a request for proposals (RFP) to offset the mitigation liability by third-party delivery of mitigation sites or mitigation bank credits. Further if no sites or credits are available, VARTF and the IRT will discuss alternative options to fulfill those advance credits. 2019 Instrument 17.B.

Findings
Using the credit ledger, we identified instances when advance credits were sold and compared them to the timing of RFPs. VARTF has issued RFPs in the following geographic service areas: Chesapeake Bay, Chowan River, Potomac River, Roanoke River, and Tennessee River. We summarize these below, together with their timing vis-à-vis the two-year requirement of the 2019 Instrument.

Chesapeake Bay

VARTF issued an RFP for stream credits in the Chesapeake Bay service area in November 2018. Two years after the first sale would have been September 2016. However, this RFP was prior to the 2019 revised Instrument setting the 2-year standard. VARTF issued a second RFP in November 2020, the year after the revised Instrument. Neither RFP resulted in responsive proposals, and a mitigation project is still needed.

[23] For example, for CB-9, the Program spent $6900 but no credits were generated. Similarly, the Program spent $120,000 for CH-17 that also did not result in any credits.
[24] LJ – 10 was a dam removal that restored lake to functioning wetlands and created a large number of credits, which skewed the cost per credit much lower.

Chowan River

VARTF issued an RFP for stream credits in the Chowan service area in November 2018. Two years after the first advance credit sale would have been 2017. This RFP resulted in the purchase of stream credits by VARTF in 2019 (CH-19).

Potomac River

- VARTF issued RFPs for tidal wetland credits in the Potomac service area in November 2018, April 2019, and November 2020. Two years after the first sale would have been 2019. None resulted in purchase of credits. VARTF still needs credits in this area.
- VARTF issued an RFP for nontidal wetland credits in the Potomac service area in June 2019; two years after the first sale would have been January 2021. No credits have been purchased, and VARTF mitigation projects are under development.
- VARTF issued an RFP for stream credits in the Potomac service area in February 2021; two years after the first sale would be 2022. While responsive bids were received, VARTF is pursuing its own mitigation project site.

Roanoke River

- VARTF issued an RFP for nontidal wetland credits in the Roanoke River service area in November 2018. Two years after first sale was 2014. No responsive proposals were received. VARTF purchased nontidal wetland credits from the Bannister Bend Mitigation Bank in 2020 (RO-11).

Tennessee River

- VARTF issued an RFP for nontidal wetland credits in the Tennessee service area in November 2018. Two years after the first sale would have been 2014. A responsive proposal was received and VARTF purchased nontidal wetlands credits from the Benges Creek Mitigation Bank in 2020 (TN-13).

Our review shows substantial compliance with the two-year RFP commitment in the service areas where no mitigation project was identified.

Presence of recorded land protection documents and long-term management and maintenance plans for each mitigation project

Land Protection

Both the Rule and the VARTF Program Instrument require that each site must be provided long-term protection through a Site Protection Instrument. 2019 Instrument 16 Under the Rule, real estate protection mechanisms can include "conservation easements held by entities such as federal, tribal, state, or local resource agencies, non-profit conservation organizations, or private land managers; the transfer of title to such entities; or by restrictive covenants." Federal facility management plans or integrated natural resources management plans can serve as real estate protection mechanisms on government property. 33 CFR 332.7(a)(1) The Program Instrument states "the IRT will not release any Credits until the Conservancy has provided evidence to the Chairs that the Site Protection Instrument has been recorded in the property records of the

appropriate County or City." 2019 Instrument 16. Section 16 details the requirements of the site protection instrument.

Findings
We examined the cyber repository of all post- 2011 Instrument VARTF projects listed in RIBITS for the presence of recorded land protection documents. All the projects for which SDPs have been submitted included information on the proposed site projection instrument and, where possible, copies of the site protection instrument. Several of the sites are protected via conservation easements, including easements held by the Conservancy (e.g., MJ-5, PO-8, CB-17, LJ-11, and SH-6) or other non-profits (e.g., CB-22, NW-1, RO9- unsigned). For AO-7, the draft SDP states that the land will be purchased by the full delivery contractor (RES) and that the Conservancy will hold the conservation easement when the SDP is finalized. Other sites are held in fee by the Conservancy. For some of these projects, the draft or approved SDPs state deed restrictions will be recorded upon completion of initial physical and biological improvement (e.g., LJ-14 – will be transferred to Virginia Department of Game and Inland Fisheries, RP-15, NW-3, and TN-11) and include draft restrictions (developed using the Corps-approved template). For other sites, deed restrictions have already been filed (e.g., AO-4 and TN-10).

Long-Term Management and Maintenance Plans

Following construction of each site, VARTF is required to "monitor each Site according to the Site-specific Monitoring Requirements set forth in each SDP."[25] 2019 Instrument 20. The 2019 Instrument also defines a requirement for a "Maintenance Plan," which is the schedule of activities "to ensure the continued viability of the mitigation resources once initial construction is completed for a Site and until the Site enters Long-Term Managements." 2019 Instrument 22. This is the "site operations maintenance plan" Exhibit K of the SDP.

In addition, VARTF must submit a Long-Term Management Plan "prior to the release of credits" and determine periodically whether, in light of monitoring and maintenance activities or changed circumstances it needs to be revised. 2019 Instrument 23. The LTMP is also an Exhibit to the SDP. (Under the 2011 Instrument, VARTF was tasked with submitting a "Long-Term Management and Maintenance Plan (LTMMP) as a single document addressing the activities after success criteria monitoring had been completed.).

Findings
We reviewed draft and final SDPs for all the recent (post-2011 Instrument) proposed and approved sites listed in RIBITS for presence of monitoring plans. All reviewed approved or draft SDPs for these sites included monitoring plans consistent with the Exhibit D (Site Development Plan Template and Exhibits) of the Program Instrument -- except for those projects (UJ-4 and MJ-13) for which SDPs have yet to be submitted.

We find that the required Long-Term Management and Maintenance Plans have been submitted with each post-Instrument SDP. For example, LJ-14's LTMMP was submitted as Exhibit M to the December 2019 SDP for this site. The CB-17 revised SDP (August 2020) includes the required LTMMP as Exhibit M. The PO-8 SDP (February 2021) has the required LTMMP as

[25] The 12 elements required of the SDP are outlined in Exhibit D of the Program Instrument.

Exhibit M. The approach being used in substantially that of the 2011 Instrument. Even though the terminology of the 2019 Instrument associated Maintenance Plans with the Monitoring phase and made post-release activities the "Long-Term Management Plan," VARTF is continuing the prior approach of filing a single LTMMP for the post-release phase. This is likely because its site proposals predated the 2019 Instrument even though the SDPs were submitted or approved subsequently. As noted in our 2016 Program Audit, VARTF has structured the LTMMP as a separate document with its own signatures, that is incorporated by reference into the SDP. This approach allows the LTMMP to be viewed in one place and commits the Long-Term Steward, and the IRT chairs to implementation. By its express terms, each LTMMP is "an enforceable instrument, implemented in accordance with the SDP and the Real Estate Protection Document.

The newest of the SDPs follow the 2019 Instrument model more closely. The draft SDP for RP-15 (September 2021) includes a brief "site operations maintenance plan" for implementation during the ten-year monitoring period, before long-term management. It provides, in part, "Upon the conclusion of the ten-year monitoring period, the Conservancy will revisit this Maintenance Plan, and submit an updated Maintenance Plan, for coordination with the IRT." The same draft SDP includes the required Long-Term Management Plan (LTMP), which establishes plans and objectives for long-term management of the site, which is now not separately described as "an enforceable instrument" but which contains the representations that is may be enforced by any proceeding in law or equity, or administrative proceeding by the IRT.

Satisfaction of program reporting protocols

Section 27.A of the 2019 Program Instrument (like section VI of the 2011 Instrument) requires VARTF to submit an annual ledger report showing the beginning and ending balances of available credits, sold or debited credits, permitted impacts for each resource type in each service area, additions and subtractions of credits, and any other credit changes, as well as monies paid into the Program, expended for Mitigation Projects, and any remaining balances. 33 CFR 332.8(q)(1). The Conservancy must also provide an analysis of liabilities, offset status, and financial standing. 2019 Instrument 27.A. Under the Rule, the annual report must address income, disbursements, and interest on the program account, the list of permits for which program funds were accepted, description of program fund expenditures, and the balance of advance credits and released credits for each service area at the end of the reporting period. 33 CFR 332.8(i)(3). The Annual Report is due by March 31 of each year.

The ILF must submit monitoring reports on its mitigation project sites as scheduled. 33 CFR 332.6(a),(c), 332.8(q)(2). 2019 Instrument 27.C The Conservancy also must submit maintenance reports (covering the period from initial construction until the commencement of long-term management) for each of its mitigation project sites. 2019 Instrument 27.D. These are to be supplied by VARTF and uploaded to RIBITS by January 31 of each year.

ELI sought to verify that VARTF Annual Reports from 2016 to 2020 had been prepared and submitted consistent with the annual reporting requirements in the Program Instruments and the Rule related to ELI's program audit. We also reviewed compliance with the requirements for monitoring and maintenance reporting.

Findings:
Annual Reports. We find that VARTF has submitted Annual Reports that are substantially consistent with reporting protocols established by the Instrument and the Rule. However, the Annual Reports do not show beginning and ending balances of available credits for each reporting year. Cumulative information on available credits and credit sales by service area and resource type is maintained on the credit ledger on RIBITs, but not summarized year-by-year.

The Annual Reports show (in Table 7 of each report) the mitigation liabilities assumed (credits sold), and credits proposed, constructed, and released in each calendar year. See also Table 8 for released credits by resource type and mitigation project for the relevant year. The Annual Reports show (Table 4) the dates and amounts of each credit sale by permit and by resource for the relevant year, and whether the sale was of advance or released credits. The Annual reports do show (Tables 5, 6) the monies received in the relevant year, and funds expended or allocated for that year, and the cumulative balance since the inception of the program.[26] Table 5 shows mitigation payments and other revenues, indicates the funds allocated for nontidal wetlands, tidal wetlands, and stream USM and non-USM mitigation activities in each year, and ending balances. It also includes funds allocated or expanded by the program and classed as "Allocated Funds (Other)."[27]

As required, the Annual Reports list total credit liabilities and released credits by service area and resource type.

We find that the requirement of the 2019 Instrument for analysis of liabilities, offset status, and financial status of VARTF's ability to meet the outstanding liabilities has been met. In the 2019 and 2020 Annual Reports this information has been presented in the section captioned "Project Identification Needs."

Timely filing of the Annual Report has for the most part been satisfied. However, the 2021 Annual Report had not yet been filed at the time of our program audit.

Monitoring Reports. The 2019 Instrument provides for the submission of monitoring reports on mitigation project sites in accordance with the Instrument and the Site Development Plan (SDP) for each site. "The Conservancy shall prepare a monitoring report during Years 1, 2, 3, 5, 7, and 10 of the monitoring period. Monitoring reports may also be requested by the IRT during any non-monitoring years (Years 4, 6, 8, and/or 9) at the reasonable discretion of the IRT and may be

[26] ELI noted a minor error in the Financial Summary statement in the 2020 Annual Report, where the unallocated balance of the Trust Fund is listed as $32,221,500 in the text and $32,238,600 in Table 5.
[27] The Allocated Funds (Other) category includes "administrative fee, staff salaries and expenses, and bank service charges" (essentially programmatic operating expenses not allocated to specific projects); but it also includes "project budgets funded by [the] General Fund." These latter expenditures use programmatic monies not associated with the mitigation fund and dedicated to particular resources. We note that the "allocated funds (other)" was substantially higher in 2020 than in other years. In most years it ranged from $400,000 to the high $500,000s, but was $1.56 million in 2020. Table 9 indicates that $813,000 of general fund monies were spent on AO-7, TN-13 (full delivery contract/credit purchases to meet prior liabilities not covered by VARTF projects), and on corrective action activities at RO-3 (a project that had completed its 7th year of monitoring prior to the need for corrective action). The reasons for the general fund allocations are not explained in the report. The Instrument provides that general fund monies may be spent on "sites, program expenses, or other projects approved by the IRT." Para. 19(C)(3).

limited to monitoring of areas that did not attain Performance Standards or required adaptive management as identified in previous monitoring reports or Site visits." 2019 Instrument 20 The program's SOPs say that VARTF will upload a copy of "the report" onto RIBITS and notify the co-chairs. Review by IRT is to follow, with comments and any "required changes." We find that VARTF has submitted and uploaded the required monitoring reports to RIBITS.

Maintenance Reports. The 2019 Instrument separately identifies an obligation for VARTF to submit maintenance reports for each mitigation site covering the period from initial construction until the commencement of long-term management. (The Instrument requires a "maintenance plan" for each SDP defining a "description and schedule" of regular maintenance requirements in this period.) We found no separate "maintenance reports." However, the relevant information appears to be included in the annual monitoring reports we reviewed. We reviewed recently signed SDPs and the subsequent monitoring reports for those sites, and we find that this requirement is being substantially met. For example, the SDP template in use explicitly makes maintenance reporting a *part* of the annual monitoring report. See, e.g., LJ-14 SDP, Exh. K. (Monitoring Report Requirements) (2019): "Mitigation monitoring reports shall include at a minimum the following information…3. A detailed narrative summarizing the condition of the Mitigation Site and *all regular maintenance and monitoring activities*." And this information is presented in the monitoring report (see, *e.g.,* the "vegetation management report" section of the Year One monitoring report). This is borne out in the other recent SDPs and monitoring reports we reviewed.

Standard Operating Procedures

Standard operating procedures (SOPs) can be highly important for maintaining program consistency and assuring accurate performance when staff changes occur. The Conservancy has entered into agreed SOPs for VARTF Projects in collaboration with the Corps and DEQ. The current version of these SOPs was approved February 20, 2013.

The program also has several internal documents, maintained by program staff, to track project development, timelines, and needs as well as program workload and priorities. These include:

- Basin Summaries: An excel spreadsheet with tabs for each basin. Each basin tab includes overall project information (project needs, projects in development – beginning, projects in development – advanced, and projects in monitoring – credits pending) as well as information (age of impacts, project needs, and available funds) by credit type (streams, non-tidal wetlands, and tidal wetlands). A roll-up tab includes all information from all the basins.
- Master Project Tracking: An excel spreadsheet includes information by basin on project workstream, marketing, action items, lead responsibility, team members, start date, deadline, comments, status, and need to check in with the IRT on action items.
- RFP Tracking: An excel spreadsheet tracking information (project location, mitigation type, credits, RFP open, RFP close, response, and notes) and RFPs issued.
- Timelines 2022: A word document tracking all project milestones with dates.
- VARTF Workload and Priorities: An excel spreadsheet tracking pending and completed tasks as well as approval received across projects. Pending and completed task information tracked includes project number, project name, action item, notes, date

submitted, and team member responsible. Approval received information tracked includes basin, project number, project name, approval received, date, details, team member entered by, and notes.

Findings
The project tracking documents allow the program to track project development timelines, priority tasks, and project development needs by basin and credit type. The Timelines 2022 document may allow the program to perform an analysis of average time for each stage of project approval (i.e., prospectus, draft SDP, final SDP) to determine if there are any lessons to be learned about possible sticking points across the project review and approval timeline and any efficiencies that could be gained.

Although the program does appear to have standard practices around the maintenance of the credit ledger and project tracking documents, VARTF could benefit from additional written procedures for the entry of data and management of these databases, including QA/QC procedures to ensure the accuracy of data tracking.

Conclusion

We find the VARTF program activities covered by this audit to be in substantial compliance with their material requirements in the Rule and 2019 Program Instrument, with one exception: The requirement that site acquisition and initial physical and biological improvements be completed by the third growing season after the first sale of advance credits in each service area was not met for all basins and service areas in which advance credits were sold by VARTF.

- The program has identified and pursued mitigation projects in each of its service areas to satisfy liabilities, using a prioritization tool that assists in identifying basins and resource types of greatest need, including consideration of the age and number of liabilities. The continued use of this tool is likely to assist in effective targeting of VARTF resources.

- In our 2016 program audit, we noted that only one SDP (LJ-11) had been approved in the period covered by that audit (2011-2015), while three were pending. We recommended that the IRT and program should consider reviewing their operating procedures and priorities to ensure timely review as more plans enter the review and approval process. Many more projects have entered the process. During the period of this audit, additional SDPs were submitted or underwent review: TN-10 (approved 2018), TN-11 (approved 2018), SH-6 (submitted 2016, revised 2022), CB-17 (submitted 2013, 2015, revised 2020), LJ-14 (approved 2019) , AO-6 (submitted 2018, withdrawn), NW-3 (submitted 2018, approved 2020), AO-4 (submitted 2019, revised 2022), CB-22 (submitted 2019, revised 2020), PO-8 (submitted 2019, revised 2021), RO-9 (submitted 2020, revised 2021), AO-7 (submitted 2020, revised 2021), RP-15 (submitted 2021), and numerous projects are at the proposal and IEL stages. The portfolio of pending projects suggests the need for continued attention to project tracking, timelines, and management by both the IRT and VARTF in order to ensure timely approvals.