

**International Civil Aviation Organization (ICAO) Carbon Offsetting and Reduction  
Scheme for International Aviation (CORSA)**

**Re-assessment Application Form for CORSA-Eligible Emissions Unit Programmes**

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## **SECTION I: ABOUT THIS RE-ASSESSMENT**

### **Background**

In March 2020, the ICAO Council requested TAB to monitor and review the continued eligibility of emissions unit programmes that the Council determined to be eligible under CORSIA. At present, all CORSIA-eligible Emissions Unit Programmes are eligible to supply CORSIA-eligible Emissions Units for the 2021-2023 compliance cycle only.

In view of the Council's request, and in line with TAB Procedures<sup>1</sup>, TAB agreed to undertake a re-assessment of all CORSIA-eligible Emissions Unit Programmes in 2022, including to inform TAB's recommendations to ICAO Council regarding the possible extension of the current eligibility timeframe of the 2021-2023 compliance cycle.

ICAO invites all CORSIA-eligible Emissions Unit Programmes interested in continuing to be designated as CORSIA-eligible to apply for the re-assessment by TAB, providing updated information requested through this re-assessment application form and all requested supplementary materials and evidence.

This re-assessment will be conducted in line with TAB's 2022 annual assessment cycle and involve some of the same procedures and timing used in TAB's assessments of new applications and material changes to eligible programme procedures. In undertaking this work, TAB may also ask programmes to provide specific examples or case studies illustrating how programme procedures or systems perform in practice. TAB does not anticipate that this re-assessment will result in recommendations to revise or revoke the eligibility status of emissions units that the ICAO Council has approved for use during the CORSIA's pilot phase.

### **Focus of the 2022 re-assessment**

TAB will pursue four key objectives in this re-assessment process:

- (1) Sample criteria: To assess the continued consistency of programme procedures with these sample Emissions Unit Criteria (EUC) and the related *Guidelines for Criteria Interpretation*:
  - a. Realistic and credible baselines (SG3)
  - b. Additionality (SG3)
  - c. Permanence (SG4), in tandem with the *Guideline* under the *Governance* criterion for having in place long-term plans for the continued admin of multi-decadal elements, including for dissolution (SG1)
  - d. "Only counted once towards a mitigation obligation" (SG5)
  - e. Sustainable development criteria (SG1)
- (2) Updates made to programme procedures: To review procedural changes and updates that programmes introduced *between the dates of (a)* their initial approval by ICAO Council and *(b)* 28 February 2022. Programmes are requested to summarize and provide evidence of any and all changes, including those that were previously submitted for TAB's review as potential material changes<sup>2</sup>. However, TAB's re-assessment

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<sup>1</sup> Refer to TAB Procedures paragraph 7.4, 7.7, 7.8, 7.22 and 7.23

<sup>2</sup> A "Material Change" is defined in TAB Procedures, paragraph 7.3. TAB's Procedures for reviewing potentially-material procedural changes are described in TAB Procedures, paragraphs 7.3, 8.4, 8.5 and 8.6.

will focus on procedural updates that were not previously submitted or assessed as potential material changes.

- (3) Programme Registry Attestations: To review *Emissions Unit Programme Registry Attestations* and provide a summary for Council regarding the status of *Attestation* submission, form completeness, and fulfillment of requirements by each programme and its designated registry(ies).
- (4) Up-to-date documentation: To obtain up-to-date application form and programme materials for record-keeping and versioning purposes.

**Translation:** As was done previously, if the programme documents and information are not published in English, the programme should fully describe in English (*rather than summarize*) this information in the fields provided in this form, and in response to any additional questions. Where this form requests *evidence of programme procedures*, programmes are strongly encouraged to provide these documents in English, to provide for accuracy and comprehension. Where this is not possible due to time constraints or document length, the programme may provide such documents in their original language in a readily translatable format (e.g., Microsoft Word). Those programmes that need to translate documents prior to submission may contact the ICAO Secretariat regarding accommodation.

**Disclaimer:** The information contained in the re-assessment application, and any supporting evidence or clarification provided by the programme including information designated as “business confidential” by the programme, will be provided to the members of the TAB to properly assess the programme and make recommendations to the ICAO Council. The application and such other evidence or clarification will be made publicly available on the ICAO CORSIA website for the public to provide comments, except for information which the applicant designates as “business confidential”. The applicant shall bear all expenses related to the collection of information for the preparation of the application, preparation and submission of the application to the ICAO Secretariat and provision of any subsequent clarification sought by the Secretariat and/or the members of the TAB. Under no circumstances shall ICAO be responsible for the reimbursement of such or any other expenses borne by the applicant in this regard, or any loss or damages that the applicant may incur in relation to the re-assessment and outcome of this process.

## **SECTION II: INSTRUCTIONS**

### **Submission and contacts**

Programmes interested in continuing to be designated as a CORSIA-eligible Emissions Unit Programme are invited to complete and submit the form, along with accompanying evidence no later than close of business on **28 February 2022** via [officeenv@icao.int](mailto:officeenv@icao.int). Within seven business days of receiving this form, the Secretariat will notify the programme that its form was received.

If the programme has questions regarding the completion of this form, please contact ICAO Secretariat.

### **Form basis and cross-references**

Questions in this form align with the questions included in the application for TAB's annual assessment, and are derived from the CORSIA emissions unit eligibility criteria (EUC) and any *Guidelines for Criteria Interpretation*. Each question includes the paragraph number for its corresponding criterion or guideline that can be found in [Appendix A “Supplementary Information for Assessment of Emissions Unit Programmes”](#).

### **Application Form completion**

The programme is expected to respond to all questions in this application form at the time of application submission. TAB cannot initiate its assessment in which this information is not provided in full as requested in this section. Failure to provide complete information may result in delays to the re-assessment process.

A “complete” response involves three components: 1) a written summary response, 2) supporting evidence, 3) planned programme revisions, and 4) updates and changes to programme procedures since the initial application/approval.

- 1) **Written summary responses:** The programme is encouraged to construct written summary responses in a manner that provides for general comprehension of the given programme procedure, independent of supporting evidence. TAB will confirm each response in the supplementary evidence provided by the programme. Please note that written summary responses should be provided in all cases—supporting evidence (described in *c*) below) should not be considered as an alternative to a complete summary response.
- 2) **Supporting evidence:** Most questions in this form request *evidence of programme procedures or programme elements*. Such evidence may be found in programme standards, requirements, or guidance documents; templates; programme website or registry contents; or in some cases, in specific methodologies. To help manage file size, the programme should limit supporting documentation to that which directly substantiates the programme's statements in this form.

Regarding such requests for evidence, programmes are expected to substantiate their responses in any of these ways (**in order of preference**):

- a) web links to supporting documentation included along with the written summary response to each given question; with instructions for finding the relevant information within the linked source (i.e. identifying the specific text, paragraph(s), or section(s) where TAB can find evidence of the programme procedure(s) in question);

- b) copying/pasting information directly into this form (no character limits) along with the written summary response;
- c) attaching supporting documentation to this form at the time of submission, with instructions for finding the relevant information within the attached document(s);

**EXAMPLE** of preferred approach to providing supporting evidence that could meet expectations for complete responses to a question:

“The Programme ensures its consistency with this requirement by requiring / undertaking / etc. the following:

[Paragraph(s) introducing and summarizing specific programme procedures relevant to question]

The full contents of these procedures can be found in [Document title, page X, Section X, paragraphs X-X]. This document is publicly available at this weblink: [weblink].”

3) Planned programme revisions: Where the programme has any plans to revise the programme (e.g., its policies, procedures, measures, tracking systems, governance or legal arrangements), including to enhance consistency with a given criterion or guideline, please provide the following information in response to any and all relevant form question(s):

- a) Proposed revision(s);
- b) Process and proposed timeline to develop and implement the proposed revision(s);
- c) Process and timeline for external communication and implementation of the revision(s).

4) Updates and changes to programme procedures since the initial application/approval: Each question in this form provides discrete fields for the programme to include, and clearly distinguish between, two key pieces of information:

- (1) the information provided by the programme in its initial application—which includes all written clarifications and explanations shared with TAB over the course of the programme’s initial assessment;

**and**

- (2) new information describing any and all procedural changes and updates that programmes introduced *between the dates of (a) their initial approval by ICAO Council and (b) 28 February 2022*. Here, Programmes are requested to summarize and provide evidence of any and all changes, including those that were previously submitted for TAB’s review as potential material changes.

### **Scope of application and re-assessment**

The programme may elect to revise the scope of activities supported by the programme and assessed by TAB, as compared to its current scope of eligibility. In such a case, the programme is requested to clearly identify, in the

following Appendices, the additional activities that it wishes to submit for, or exclude from, TAB's re-assessment:

In **Appendix B** "*Programme Re-assessment Scope*", the programme should clearly identify, at the "activity type" level (e.g., sector(s), sub-sector(s), and/or programme/project "type(s)"), elements that were previously assessed by TAB and **is currently eligible under the Scope of Eligibility<sup>3</sup>, and additional elements that the programme is submitting for TAB's assessment**; as well as the specific methodologies, protocols, and/or framework(s) associated with these programme elements; which *are* described in this form.

In **Appendix C** "*Programme Exclusions Scope*", the programme should clearly identify, at the "activity type" level (e.g., sector(s), sub-sector(s), and/or programme/project "type(s)"), any elements that were excluded from TAB's previous assessments or are **currently outside of programme's Scope of Eligibility, and additional elements that the programme wishes to exclude from TAB's assessment**; as well as the specific methodologies, protocols, and/or framework(s) associated with these programme elements.

**(NEW in 2022)** In **Appendix D** "*Emissions Unit Programme Registry Attestation*", the programme should complete and submit the information outlined in the instructions below, based on the status of its *Registry Attestation*:

- **Programme has previously completed and submitted a *Registry Attestation***: Respond only to new Question 7.3 in the *Emissions Unit Programme Registry Attestation* form (Appendix D). ICAO will append this response to the programme's most recent *Registry Attestation* on file.
  - o NOTE: These Programmes **are not** required to re-submit the *Registry Attestation*'s signature page or any other information in Questions 7.1, 7.2, 7.4–7.11 of Appendix D, but may use this opportunity to inform ICAO of any needed updates.
- **Programme has not previously completed and submitted a *Registry Attestation***: Refer to the instructions for completing the attached *Emissions Unit Programme Registry Attestation*, including the signature page and accompanying information form (Appendix D). Provide the completed materials along with this application form.

#### **(NEW in 2022) Treatment of EUC-relevant programme procedures at the methodology level**

Programmes that identify with the following explanations are encouraged to summarize and provide evidence of both their overarching *programme-level* procedure(s) and *methodology-level* procedure(s) wherever relevant:

The CORSIA EUC and TAB assessments typically apply to *programme-level* procedures rather than to individual methodologies or projects. Most programmes' overarching guidance documents contain a mix of *general/guiding* requirements and *technical* ones. However, some programmes set out general requirements in overarching guidance documents, while reflecting key technical procedures in programme methodologies<sup>4</sup>. **Such methodologies may be relevant to TAB's assessment**. This could be the case where, e.g., the methodologies are developed directly by the

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<sup>3</sup> As defined in the latest ICAO Document "*CORSIA-Eligible Emissions Units*", available via <https://www.icao.int/environmental-protection/CORSIA/Pages/CORSIA-Emissions-Units.aspx>

<sup>4</sup> Note that any applicant may use different terminology. For example, a programme may refer to a "methodology" as a protocol or framework.

programme (staff or contractors); the programme must refer to a methodology's requirements when describing its alignment with the EUC; the programme's general requirements alone are too high-level/non-specific for TAB to assess them as stand-alone procedures.

EXAMPLE: Programme A's project standard contains its *programme-level* general requirements. The standard requires all activities to pass a programme-approved additionality test. However, Programme A sets out a unique list of approved tests in each of its methodologies—rather than providing a single list or menu in its programme-level standard. These lists vary across different activity types or category(ies). Thus, TAB may ultimately need to assess Programme A's programme- *and* methodology-level requirements in order to confirm its use of the specific additionality tests called for under the *Must be Additional* criterion.

### **“Linked” certification schemes**

This application form should be completed and submitted exclusively on behalf of the programme that is described in Part I of this form.

Some programmes may supplement their standards by collaborating with other schemes that certify, e.g., the social or ecological “co-benefits” of mitigation. The programme can reflect a linked scheme's procedures in responses to this form, where this is seen as enhancing—i.e. going “above and beyond”—the programme's own procedures.

For example, the programme may describe how a linked scheme audits sustainable development outcomes; but is not expected to report the linked scheme's board members or staff persons.

Programmes should clearly identify any information provided in this form that pertains to a linked certification scheme and/or only applies when a linked certification scheme is used.

### **Disclosure of programme application forms and public comments**

Applications, including information submitted in Appendices B, C, as well as other information submitted by applicants will be publicly available on the ICAO CORSIA website, except for materials which the applicants designate as business confidential.

The public will be invited to submit comments on the information submitted, including regarding consistency with the emissions unit criteria (EUC), through the ICAO CORSIA website, for consideration by the TAB in its re-assessment.

## **SECTION III: APPLICATION FORM**

### **PART 1: General information**

#### **A. Programme Information**

Programme name: [Climate Action Reserve Offsets Registry Program](#)

Administering Organization<sup>5</sup>: [Climate Action Reserve](#)

Official mailing address: [818 W 7<sup>th</sup> Street, Suite 710, Los Angeles, CA 90017](#)

Telephone #: [+1-213-891-1444](#)

Official web address: [www.climateactionreserve.org](http://www.climateactionreserve.org)

#### **B. Programme Administrator Information**

Full name and title: [Kristen Gorguinpour, Vice President of Programs](#)

Employer / Company (*if not programme*): [Click or tap here to enter text.](#)

E-mail address: [KGorguinpour@climateactionreserve.org](mailto:KGorguinpour@climateactionreserve.org) Telephone #: [+1.213.785.1230](#)

#### **C. Programme Representative Information (if different from Programme Administrator)**

Full name and title: [Craig Ebert, President](#)

Employer / Company (*if not Programme*): [Click or tap here to enter text.](#)

E-mail address: [cebert@climateactionreserve.org](mailto:cebert@climateactionreserve.org) Telephone #: [+1.213.213.1239](#)

#### **D. Programme Senior Staff / Leadership (e.g., President / CEO, board members)**

List the names and titles of programme's senior staff / leadership, including board members:

[Craig Ebert, President](#)

[Kristen Gorguinpour, Vice President, Programs](#)

[Amy Kessler, Director, Latin American Operations](#)

[Jennifer Weiss, Vice President, Communications and Business Outreach](#)

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<sup>5</sup> Name of the business, government agency, organization, or other entity that administers the Emissions Unit Programme, *if different from "Programme Name"*.

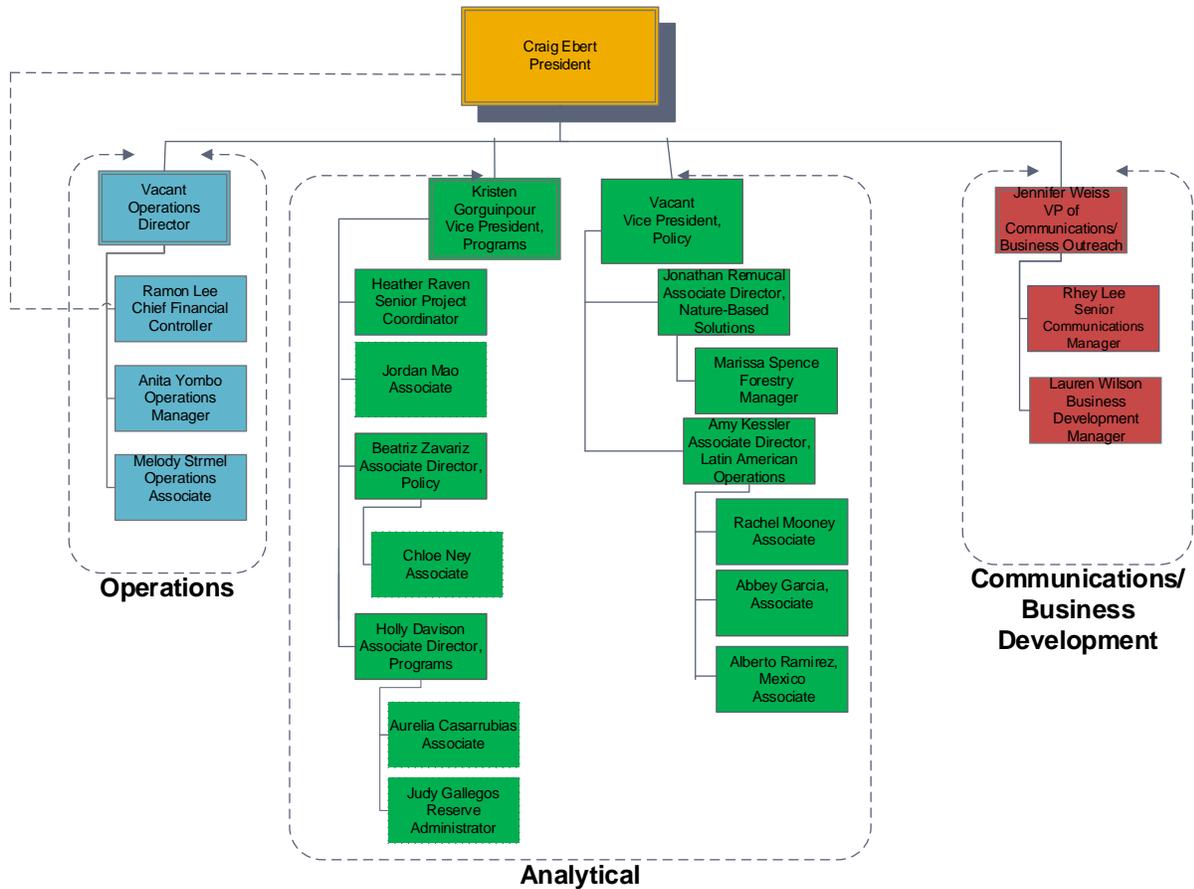
Board of Directors:

- Linda Adams, Former Secretary for Environmental Protection, California Environmental Protection Agency, Board Chair
- Peter Miller, Director, Western Region, Climate & Clean Energy Program, Secretary
- Teveia Barnes, Former Executive Director, California Infrastructure and Economic Development Bank
- Steve Corneli, Clean Energy Advisor
- Peter Liu, Managing Director, Clean Energy Advantage Partners
- Heather O'Neill, President, Advanced Energy Economy
- Eduardo Piquero, Director General, Mexico2
- Tim Profeta, Director, Nicholas Institute for Environmental Policy Solutions, Duke University
- Jan Schori, General Manager (Retired), Sacramento Municipal Utility District
- Dr. Stephan Schwartzman, Senior Director, Tropical Forest Policy, Environmental Defense Fund.
- Katie Sullivan, Managing Director, International Emissions Trading Association

Provide an organization chart (in the space below or as an attachment) that illustrates, or otherwise describes, the functional relationship a) between the individuals listed in D; and b) between those individuals and programme staff / employees; and c) the functions of each organizational unit and interlinkages with other units.



### Climate Action Reserve March 2022 Organizational Chart



### **PART 3: Emissions Unit Programme Design Elements**

*Note*—where “evidence” is requested throughout *Part 3* and *Part 4*, the programme is expected to provide web links to documentation and to identify the specific text, paragraph(s), or section(s) where TAB can find evidence of the programme procedure(s) in question. If that is not possible, then the programme may provide evidence of programme procedures directly in the text boxes provided (by copying/pasting the relevant provisions) and/or by attached supporting documentation, as recommended in “SECTION II: INSTRUCTIONS—*Form Completion: Supporting Evidence*”.

*Note*—“*Paragraph X.X*” in this form refers to corresponding paragraph(s) in [Appendix A](#) “*Supplementary Information for Assessment of Emissions Unit Programmes*”.

*Note*—Where the programme has any plans to revise the programme (e.g., its policies, procedures, measures, tracking systems, governance or legal arrangements), including to enhance consistency with a given criterion or guideline, provide the following information in response to any and all relevant form question(s):

- Proposed revision(s);
- Process and proposed timeline to develop and implement the proposed revision(s);
- Process and timeline for external communication and implementation of the revision(s).

#### Question 3.1. Clear methodologies and protocols, and their development process

Provide *evidence*<sup>6</sup> that the programme’s qualification and quantification methodologies and protocols are *in place* and *available for use*, including where the programme’s existing methodologies and protocols are publicly disclosed. (*Paragraph 2.1*)

**A.** Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:

The Climate Action Reserve uses the term “protocol” for its offset project methodologies, since these documents are more comprehensive than what many other programs call “methodologies.” Each offset protocol is intended to be, as much as possible, a standalone document, containing all of the necessary guidance and information to develop an offset project, rather than requiring the user to cobble together several different modules. There are exceptions to this practice, such as supplementary quantification guidance or parameter tables that get updated over time.

The Reserve protocol development process involves a series of phases that a protocol passes through before it is presented to the Reserve Board of Directors for adoption (Board approval occurs in an open, public session for all any new protocol or significant revision of an existing protocol) or simply approved by staff for publication (minor technical revision of an existing protocol). These phases may include:

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<sup>6</sup> For this and subsequent “evidence” requests, evidence should be provided in the text box (e.g., web links to documentation), and/or in attachments, as recommended in “SECTION II: INSTRUCTIONS—*Form Completion*”.

- Protocol concept submission
- Internal scoping process
- White paper/issues paper development (either internal or external, depending on expertise)
- Public scoping meeting (our use of the term “public” throughout this document includes outreach to anyone interested in the protocol, including use of various media to publicize the opportunity to participate, such as our regular newsletters, publication on our website, etc.)
- Public kick-off meeting
- Request for expert stakeholder workgroup statement of interest
- Multi-stakeholder workgroup formation
- Request for proposals for technical contractor (if needed)
- Staff works with workgroup members and contractor (if needed) to draft protocol
- Workgroup meetings (also open to public “observers”)
- Workgroup review and comment of draft protocol
- Staff revises protocol based on workgroup comment
- Public comment period (typically 30 days)
- Public comment webinar
- Staff reviews and publicly responds to submitted comments
- Staff revises draft protocol
- Reserve Board reviews and approves draft protocol
- Protocol finalized and published online
- Public and interested stakeholders notified of approved protocol

The development of a new protocol includes all of the steps above with the exception of the white paper or issues paper development and public scoping meeting, which are not always necessary depending on the project type. New protocol development always includes the steps from the public kick-off meeting onward. The Reserve’s protocol development is an open and transparent process where all information is publicly available on project protocol-specific webpages. New protocol development takes anywhere from six months to one year, or more, depending on the project type.

The Reserve performs two different types of protocol revisions: a significant or “policy” revision and technical or “program” revision. Significant protocol updates are conducted on an as-needed basis when new research presents itself to warrant a revision to the methodology or if new regulations are enacted that affect project activities, for example. Other technical or editorial updates are conducted more frequently via issuance of an Errata and Clarifications document, effective upon publication, that accompanies the respective protocol or via a program revision when several errata and/or clarifications are incorporated into the protocol. Errata are only issued in instances of material errors or typos in the protocol document. Clarifications are only issued when protocol text is unclear or incomplete for an issue which is faced by multiple projects, and where the same guidance should be given in every similar situation. Upon next revision, existing Errata and Clarifications are then incorporated into the updated protocol.

A policy revision involves a significant change to a protocol’s quantification methodology, baseline estimation, project definition, or eligibility requirements. This type of revision requires a public comment process and

approval by the Reserve Board of Directors. A policy revision results in a full protocol version update (e.g., a full upgrade from Version 1.0 to Version 2.0). Some policy revisions may also require consultation with the original protocol workgroup members and a workgroup comment period prior to the public comment period.

A program revision involves editorial and technical changes to a project protocol such as clarified language and guidance, and less significant changes to quantification methodologies or monitoring requirements. A program revision results in a sub-version change (e.g., a minor upgrade from Version 1.0 to Version 1.1). The adoption date of the protocol is the date it is publicly available on the Reserve website. This type of revision does not significantly change the policies and eligibility requirements in the protocol, so it is not necessary for this revision to go through a public comment period and adoption by the Reserve Board. However, if additional input from stakeholders is desired, the protocol may be released for a public comment period, similar to the public comment process for new protocol development or policy revisions.

**B. Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none, “N/A”*):**

The Reserve continues to operate a dynamic program, with regular updates to our program requirements, the addition of new protocols, and revisions to existing protocols. These actions have not fundamentally changed the high-quality procedures and programs already approved by ICAO, but do serve to improve the overall quality and marketability of the program and individual protocols. Specific actions undertaken since ICAO last approved the Reserve program include:

- Update to the Reserve Offset Program Manual in March 2021, [https://www.climateactionreserve.org/wp-content/uploads/2021/03/Reserve\\_Offset\\_Program\\_Manual\\_March\\_2021.pdf](https://www.climateactionreserve.org/wp-content/uploads/2021/03/Reserve_Offset_Program_Manual_March_2021.pdf)
- Publication of the Reserve Offset Program Manual in Spanish in March 2021, [https://www.climateactionreserve.org/wp-content/uploads/2021/12/Manual\\_del\\_Programa\\_de\\_Compensaciones\\_de\\_la\\_Reserva\\_marzo-2021.pdf](https://www.climateactionreserve.org/wp-content/uploads/2021/12/Manual_del_Programa_de_Compensaciones_de_la_Reserva_marzo-2021.pdf)
- Update to the Reserve Verification Program Manual in February 2021, [https://www.climateactionreserve.org/wp-content/uploads/2021/02/Verification\\_Program\\_Manual\\_February\\_2021.pdf](https://www.climateactionreserve.org/wp-content/uploads/2021/02/Verification_Program_Manual_February_2021.pdf)
- Adipic Acid Protocol v1.0 adopted in September 2020; <https://www.climateactionreserve.org/how/protocols/adipic-acid-production/>
- Canada Grassland Protocol v1.0 adopted in October 2019; <https://www.climateactionreserve.org/how/protocols/canada-grassland/>
- Biochar Protocol v1.0, under development as of February 2022.
- Improved Forest Management Protocol v5.0, adopted in October 2019; <https://www.climateactionreserve.org/how/protocols/forest/>
- US Grassland Protocol v2,1 adopted in February 2020; <https://www.climateactionreserve.org/how/protocols/grassland/>
- Mexico Forestry Protocol v2.0 adopted in March 2020; v3.0 currently underway; <https://www.climateactionreserve.org/how/protocols/mexico-forest/>
- Mexico Halocarbon Protocol v1.0 adopted in June 2021; <https://www.climateactionreserve.org/how/protocols/mexico-halocarbon/>
- Nitrogen Management Protocol, v2.1, adopted in December 2021; <https://www.climateactionreserve.org/how/protocols/nitrogen-management/>

- Soil Enrichment Protocol v1.0 adopted in September 2020;  
<https://www.climateactionreserve.org/how/protocols/soil-enrichment/>

Summarize the programme's process for developing further methodologies and protocols, including the timing and process for revision of existing methodologies. (*Paragraph 2.1*)

**A.** Information contained in the programme's original application, including information submitted in response to follow-up discussions and questions pertaining to this question:

a) Future Protocol Development

Our website contains an exhaustive listing of all of our protocols and associated procedures. The specific websites for protocol development and related activities include:

<http://www.climateactionreserve.org/how/future-protocol-development/>

Criteria for Protocol Development

<http://www.climateactionreserve.org/how/future-protocol-development/criteria/>

Program Manuals and Policies

<http://www.climateactionreserve.org/how/program/program-manual/>

b) Protocols

<http://www.climateactionreserve.org/how/protocols/>

Coal Mine Methane Project Protocol

<http://www.climateactionreserve.org/how/protocols/coal-mine-methane/>

Forest Project Protocol

<http://www.climateactionreserve.org/how/protocols/current-forest-project-protocol/>

Grassland Project Protocol

<http://www.climateactionreserve.org/how/protocols/grassland/>

Mexico Boiler Efficiency Project Protocol

<http://www.climateactionreserve.org/how/protocols/mexico-boiler-efficiency/>

Mexico Forest Protocol

<http://www.climateactionreserve.org/how/protocols/mexico-forest/>

Mexico Landfill Project Protocol

<http://www.climateactionreserve.org/how/protocols/current-landfill-project-protocol-mexico/>

Mexico Livestock Project Protocol

<http://www.climateactionreserve.org/how/protocols/current-livestock-project-protocol-mexico/>

Mexico Ozone Depleting Substances Project Protocol

<http://www.climateactionreserve.org/how/protocols/mexico-ozone-depleting-substances-project-protocol/>

Nitric Acid Production Project Protocol

<http://www.climateactionreserve.org/how/protocols/current-nitric-acid-production-project-protocol/>

Nitrogen Management Project Protocol

<http://www.climateactionreserve.org/how/protocols/nitrogen-management/>

Organic Waste Composting Project Protocol

<http://www.climateactionreserve.org/how/protocols/current-organic-waste-composting-project-protocol/>

Organic Waste Digestion Project Protocol

<http://www.climateactionreserve.org/how/protocols/current-organic-waste-digestion/>

Ozone Depleting Substances Project Protocol

<http://www.climateactionreserve.org/how/protocols/current-ozone-depleting-substances-project-protocols/>

Rice Cultivation Project Protocol

<http://www.climateactionreserve.org/how/protocols/rice-cultivation/>

Urban Forest Management Project Protocol

<http://www.climateactionreserve.org/how/protocols/current-urban-forest-project-protocol/>

Urban Tree Planting Project Protocol

<http://www.climateactionreserve.org/how/protocols/urban-forest/>

U.S. Landfill Project Protocol

<http://www.climateactionreserve.org/how/protocols/current-landfill-project-protocol/>

U.S. Livestock Project Protocol

<http://www.climateactionreserve.org/how/protocols/current-livestock-project-protocol/>

**B.** Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none, “N/A”*):

- Adipic Acid Protocol v1.0 adopted in September 2020;  
<https://www.climateactionreserve.org/how/protocols/adipic-acid-production/>
- Canada Grassland Protocol v1.0 adopted in October 2019;  
<https://www.climateactionreserve.org/how/protocols/canada-grassland/>
- Biochar Protocol v1.0, under development as of February 2022.
- Improved Forest Management Protocol v5.0, adopted in October 2019;  
<https://www.climateactionreserve.org/how/protocols/forest/>
- US Grassland Protocol v2,1 adopted in February 2020;  
<https://www.climateactionreserve.org/how/protocols/grassland/>
- Mexico Forestry Protocol v2.0 adopted in March 2020; v3.0 currently underway;  
<https://www.climateactionreserve.org/how/protocols/mexico-forest/>
- Mexico Halocarbon Protocol v1.0 adopted in June 2021;  
<https://www.climateactionreserve.org/how/protocols/mexico-halocarbon/>
- Nitrogen Management Protocol, v2.1, adopted in December 2021;  
<https://www.climateactionreserve.org/how/protocols/nitrogen-management/>
- Soil Enrichment Protocol v1.0 adopted in September 2020;  
<https://www.climateactionreserve.org/how/protocols/soil-enrichment/>

Provide *evidence of the public availability* of the programme’s process for developing further methodologies and

protocols. (*Paragraph 2.1*)

**A.** Information contained in the programme's original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:

a) Future Protocol Development

Our website contains an exhaustive listing of all of our protocols and associated procedures. The specific websites for protocol development and related activities include:

<http://www.climateactionreserve.org/how/future-protocol-development/>

Criteria for Protocol Development

<http://www.climateactionreserve.org/how/future-protocol-development/criteria/>

Program Manuals and Policies

<http://www.climateactionreserve.org/how/program/program-manual/>

b) Protocols

<http://www.climateactionreserve.org/how/protocols/>

Coal Mine Methane Project Protocol

<http://www.climateactionreserve.org/how/protocols/coal-mine-methane/>

Forest Project Protocol

<http://www.climateactionreserve.org/how/protocols/current-forest-project-protocol/>

Grassland Project Protocol

<http://www.climateactionreserve.org/how/protocols/grassland/>

Mexico Boiler Efficiency Project Protocol

<http://www.climateactionreserve.org/how/protocols/mexico-boiler-efficiency/>

Mexico Forest Protocol

<http://www.climateactionreserve.org/how/protocols/mexico-forest/>

Mexico Landfill Project Protocol

<http://www.climateactionreserve.org/how/protocols/current-landfill-project-protocol-mexico/>

Mexico Livestock Project Protocol

<http://www.climateactionreserve.org/how/protocols/current-livestock-project-protocol-mexico/>

Mexico Ozone Depleting Substances Project Protocol

<http://www.climateactionreserve.org/how/protocols/mexico-ozone-depleting-substances-project-protocol/>

Nitric Acid Production Project Protocol

<http://www.climateactionreserve.org/how/protocols/current-nitric-acid-production-project-protocol/>

Nitrogen Management Project Protocol

<http://www.climateactionreserve.org/how/protocols/nitrogen-management/>

Organic Waste Composting Project Protocol

<http://www.climateactionreserve.org/how/protocols/current-organic-waste-composting-project-protocol/>

Organic Waste Digestion Project Protocol

<http://www.climateactionreserve.org/how/protocols/current-organic-waste-digestion/>

Ozone Depleting Substances Project Protocol

<http://www.climateactionreserve.org/how/protocols/current-ozone-depleting-substances-project-protocols/>

Rice Cultivation Project Protocol

<http://www.climateactionreserve.org/how/protocols/rice-cultivation/>

Urban Forest Management Project Protocol

<http://www.climateactionreserve.org/how/protocols/current-urban-forest-project-protocol/>

Urban Tree Planting Project Protocol

<http://www.climateactionreserve.org/how/protocols/urban-forest/>

U.S. Landfill Project Protocol

<http://www.climateactionreserve.org/how/protocols/current-landfill-project-protocol/>

U.S. Livestock Project Protocol

<http://www.climateactionreserve.org/how/protocols/current-livestock-project-protocol/>

**B. Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none*, “N/A”):**

The Reserve continues to operate a dynamic program, with regular updates to our program requirements, the addition of new protocols, and revisions to existing protocols. These actions have not fundamentally changed the high-quality procedures and programs already approved by ICAO, but do serve to improve the overall quality and marketability of the program and individual protocols. Specific actions undertaken since ICAO last approved the Reserve program include:

- Update to the Reserve Program Manual in March 2021, [https://www.climateactionreserve.org/wp-content/uploads/2021/03/Reserve\\_Offset\\_Program\\_Manual\\_March\\_2021.pdf](https://www.climateactionreserve.org/wp-content/uploads/2021/03/Reserve_Offset_Program_Manual_March_2021.pdf)
- Publication of the Reserve Offset Program Manual in Spanish in March 2021, [https://www.climateactionreserve.org/wp-content/uploads/2021/12/Manual\\_del\\_Programa\\_de\\_Compensaciones\\_de\\_la\\_Reserva\\_marzo-2021.pdf](https://www.climateactionreserve.org/wp-content/uploads/2021/12/Manual_del_Programa_de_Compensaciones_de_la_Reserva_marzo-2021.pdf)
- Update to the Reserve Verification Program Manual in February 2021, [https://www.climateactionreserve.org/wp-content/uploads/2021/02/Verification\\_Program\\_Manual\\_February\\_2021.pdf](https://www.climateactionreserve.org/wp-content/uploads/2021/02/Verification_Program_Manual_February_2021.pdf)
- Adipic Acid Protocol v1.0 adopted in September 2020; <https://www.climateactionreserve.org/how/protocols/adipic-acid-production/>
- Canada Grassland Protocol v1.0 adopted in October 2019; <https://www.climateactionreserve.org/how/protocols/canada-grassland/>
- Biochar Protocol v1.0, under development as of February 2022.
- Improved Forest Management Protocol v5.0, adopted in October 2019; <https://www.climateactionreserve.org/how/protocols/forest/>
- US Grassland Protocol v2,1 adopted in February 2020;

<https://www.climateactionreserve.org/how/protocols/grassland/>

- Mexico Forestry Protocol v2.0 adopted in March 2020; v3.0 currently underway;  
<https://www.climateactionreserve.org/how/protocols/mexico-forest/>
- Mexico Halocarbon Protocol v1.0 adopted in June 2021;  
<https://www.climateactionreserve.org/how/protocols/mexico-halocarbon/>
- Nitrogen Management Protocol, v2.1, adopted in December 2021;  
<https://www.climateactionreserve.org/how/protocols/nitrogen-management/>
- Soil Enrichment Protocol v1.0 adopted in September 2020;  
<https://www.climateactionreserve.org/how/protocols/soil-enrichment/>

### Question 3.2. Scope considerations

Summarize the level at which activities are allowed under the programme (e.g., project based, programme of activities, jurisdiction-scale): (*Paragraph 2.2*)

**A.** Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:

No information was originally provided as ICAO indicated in the original application that “No additional information is requested here”

**B.** Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none, “N/A”*):

N/A

Summarize the eligibility criteria for each type of offset activity (e.g., which sectors, project types, and geographic locations are covered): (*Paragraph 2.2*)

**A.** Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:

No information was originally provided as ICAO indicated in the original application as this question was not part of the application.

The Reserve’s eligibility criteria include:

- **Additionality Determination:** The Reserve applies a standardized approach to determining additionality and projects must pass a Performance Standard Test and Legal Requirement Test to be considered additional. The Reserve’s general approach for this assessment is outlined in the Reserve’s Offset Program Manual and the requirements for test are protocol specific and detailed in each offset protocol.
- **Project Location:** The project location requirements are stated in each protocol. The Reserve currently accepts projects throughout the United States, Mexico and Canada (as permitted by the specific protocol).
- **Project Start Date:** The Reserve the eligibility of projects based on their start date. Each protocol specifies the timeframe by which a project must be submitted in consideration of its start date in order to be eligible.
- **Project Crediting Period:** Projects are only eligible to be credited for a defined period of time. Generally, for non-sequestration projects this is 10-year crediting period that may be renewed one time and for

sequestration projects, the crediting period may be up to 100 years. Each protocol specifies the allowable crediting period.

- **Regulatory Compliance:** To be eligible projects must demonstrate that they do not impact environmental issues such as air and water, endangered species and natural resource protection, and environmental justice. The specific offset protocol specifies the requirements for how projects meet this requirement.

As noted, the Reserve's offset protocols provide the specific criteria for how projects meet these eligibility criteria.

**B.** Summary and accompanying evidence of any updates or changes to the programme elements described in "A" that were initiated following the Council's initial approval of programme eligibility (*if none, "N/A"*):

N/A

Provide *evidence* of the Programme information defining a) level at which activities are allowed under the Programme, and b) the eligibility criteria for each type of offset activity, including its availability to the public: (*Paragraph 2.2*)

**A.** Information contained in the programme's original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:

No information was originally provided as ICAO indicated in the original application that "No additional information is requested here" with regard to scope considerations.

The Reserve credits activities as the project-level as noted in the Reserve's Offset Program Manual, Section 2;  
[https://www.climateactionreserve.org/wp-content/uploads/2021/03/Reserve\\_Offset\\_Program\\_Manual\\_March\\_2021.pdf](https://www.climateactionreserve.org/wp-content/uploads/2021/03/Reserve_Offset_Program_Manual_March_2021.pdf)

The Reserve's Offset Program Manual provides eligibility criteria for all projects:  
[https://www.climateactionreserve.org/wp-content/uploads/2021/03/Reserve\\_Offset\\_Program\\_Manual\\_March\\_2021.pdf](https://www.climateactionreserve.org/wp-content/uploads/2021/03/Reserve_Offset_Program_Manual_March_2021.pdf)

Additionally, the Reserve's protocols provide protocol-specific eligibility:

<http://www.climateactionreserve.org/how/protocols/>

Coal Mine Methane Project Protocol

<http://www.climateactionreserve.org/how/protocols/coal-mine-methane/>

Forest Project Protocol

<http://www.climateactionreserve.org/how/protocols/current-forest-project-protocol/>

Grassland Project Protocol

<http://www.climateactionreserve.org/how/protocols/grassland/>

Mexico Boiler Efficiency Project Protocol

<http://www.climateactionreserve.org/how/protocols/mexico-boiler-efficiency/>

Mexico Forest Protocol

<http://www.climateactionreserve.org/how/protocols/mexico-forest/>

Mexico Landfill Project Protocol

<http://www.climateactionreserve.org/how/protocols/current-landfill-project-protocol-mexico/>

Mexico Livestock Project Protocol

<http://www.climateactionreserve.org/how/protocols/current-livestock-project-protocol-mexico/>

Mexico Ozone Depleting Substances Project Protocol

<http://www.climateactionreserve.org/how/protocols/mexico-ozone-depleting-substances-project-protocol/>

Nitric Acid Production Project Protocol

<http://www.climateactionreserve.org/how/protocols/current-nitric-acid-production-project-protocol/>

Nitrogen Management Project Protocol

<http://www.climateactionreserve.org/how/protocols/nitrogen-management/>

Organic Waste Composting Project Protocol

<http://www.climateactionreserve.org/how/protocols/current-organic-waste-composting-project-protocol/>

Organic Waste Digestion Project Protocol

<http://www.climateactionreserve.org/how/protocols/current-organic-waste-digestion/>

Ozone Depleting Substances Project Protocol

<http://www.climateactionreserve.org/how/protocols/current-ozone-depleting-substances-project-protocols/>

Rice Cultivation Project Protocol

<http://www.climateactionreserve.org/how/protocols/rice-cultivation/>

Urban Forest Management Project Protocol

<http://www.climateactionreserve.org/how/protocols/current-urban-forest-project-protocol/>

Urban Tree Planting Project Protocol

<http://www.climateactionreserve.org/how/protocols/urban-forest/>

U.S. Landfill Project Protocol

<http://www.climateactionreserve.org/how/protocols/current-landfill-project-protocol/>

U.S. Livestock Project Protocol

<http://www.climateactionreserve.org/how/protocols/current-livestock-project-protocol/>

**B.** Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none, “N/A”*):

N/A

### Question 3.3. Offset credit issuance and retirement procedures

Are procedures in place defining how offset credits are... ( <i>Paragraph 2.3</i> )	
---	--

a) issued?	<input checked="" type="checkbox"/> YES
b) retired / cancelled?	<input checked="" type="checkbox"/> YES
c) subject to discounting ( <i>if any</i> )?	<input checked="" type="checkbox"/> YES

Are procedures in place defining... ( <i>Paragraph 2.3</i> )	
d) the length of crediting period(s)?	<input checked="" type="checkbox"/> YES
e) whether crediting periods are renewable?	<input checked="" type="checkbox"/> YES

Provide evidence of the procedures referred to in a) through e) (if any, in the case of “c”), including their availability to the public:

**A.** Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:

Procedures for unit issuance and retirement/cancellation (3.3.a) can be found in the publicly available Program Manual (<http://www.climateactionreserve.org/how/program/program-manual/>), specifically, Sections 3.3 and 3.5).

- a) The process of unit issuance and retirement occurs within the online project registry, operated by APX, Inc. The procedures are detailed in the Program Manual (linked above). All issuances and retirements are public and can be viewed in specific public reports within the online registry without the need to open a registry account.
- b) General policies around crediting periods are found in the Program Manual. Each protocol will have its own subsection devoted to crediting periods, where the length and ability to renew are detailed for that specific project type.

If there is any need for discounting the number of credits issued to a project for any reason (e.g., baseline uncertainty, reversal risk), those procedures will be detailed in the quantification guidance within each specific protocol. In addition, where a protocol employs a “ton-year” accounting approach to ensure permanence of emission reductions or removals, there will be mechanisms employed to discount the credit issuance based on the time value of the reduction in relation to the length of the permanence commitment. In this approach, those discounted credits may be issued to the project at a future date when additional atmospheric value has been achieved through continued permanence. There is no high-level policy around unit discounting, beyond an overarching policy of conservativeness in GHG accounting to ensure that no over-crediting occurs.

**B.** Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none, “N/A”*):

N/A

**Question 3.4 Identification and Tracking**

Does the programme utilize an electronic registry or registries? ( <i>Paragraph 2.4.2</i> )	<input checked="" type="checkbox"/> YES
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Provide web link(s) to the programme registry(ies) and indicate whether the registry is administered by the programme or outsourced to a third party (*Paragraph 2.4.2*):

**A.** Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:

Web link – <https://thereserve2.apx.com/mymodule/mypage.asp>.

The registry activities are administered by the Climate Action Reserve, with software service and support provided by APX, Inc.

**B.** Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none, “N/A”*):

N/A

Does the programme have procedures in place to ensure that the programme registry or registries...:	
a) have the capability to transparently identify emissions units that are deemed ICAO-eligible, in all account types ? ( <i>Paragraph 2.4.3</i> )	<input checked="" type="checkbox"/> YES
b) identify, and facilitate tracking and transfer of, unit ownership/holding from issuance to cancellation/retirement? ( <i>Paragraphs 2.4 (a) and (d) and 2.4.4</i> )	<input checked="" type="checkbox"/> YES
c) identify unit status, including retirement / cancellation, and issuance status? ( <i>Paragraph 2.4.4</i> )	<input checked="" type="checkbox"/> YES
d) assign unique serial numbers to issued units? ( <i>Paragraphs 2.4 (b) and 2.4.5</i> )	<input checked="" type="checkbox"/> YES
e) identify in serialization, or designate on a public platform, each unique unit’s country and sector of origin, vintage, and original (and, if relevant, revised) project registration date? ( <i>Paragraph 2.4.5</i> )	<input checked="" type="checkbox"/> YES
f) are secure (i.e. that robust security provisions are in place)? ( <i>Paragraph 2.4 (c)</i> )	<input checked="" type="checkbox"/> YES

Summarize and provide evidence of the procedures referred to in a) through f), including the availability to the public of the procedures referred to in b), d), and f):

**A.** Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:

- a) The Reserve is able to denote through customized credit serialization as well as project level classification of credit eligibility for various programs. Policies and procedures related to serialization can be found in the Program Manual Sections 1.1, 3.3.13, Section 3.5, and the “Serial Number Guide” available on the Reserve website (<http://www.climateactionreserve.org/how/projects/serial-number-guide/>). In addition, the Reserve will work with APX to develop additional indicators within the software to facilitate the filtering of projects and/or units for CORSIA eligibility.

b-f) All credits are serialized and credit transactions are tracked within the registry at all phases of unit ownership/holding from issuance to cancellation/retirement. Serialization is assigned uniquely to each project reporting period, which designates the project’s country and sector of origin, vintage year, and credit type, as explained in the “Serial Number Guide” available on the Reserve website (<http://www.climateactionreserve.org/how/projects/serial-number-guide/>). Policies and procedures related to tracking of credit transactions can be found in the publicly available Program Manual (<http://www.climateactionreserve.org/how/program/program-manual/>) Sections 3.5.1, 3.5.2, 3.5.3 and 3.5.4. In

addition to the information embedded in the serial number, the registry may be searched and filtered in a table format according to various parameters (e.g., project developer, protocol, country of origin, project status, vintage year, etc.).

**B. Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none, “N/A”*):**

N/A

List any/all international data exchange standards to which the programme’s registry(ies) conform: (*Paragraph 2.4 (f)*)

**A. Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:**

APX (<https://apx.com/>), as our registry technology provider, ensures that all critical data are encrypted at rest and in transit through technologies such as digital certificates, asymmetric key cryptography, virtual private networks, and HTTPS/TLS/SFTP protocols. Critical data assets are secured via 256-bit asymmetric key encryption. Further, APX implements industry standard tools and technologies such as Extract, Transform, and Load (ETL) and Extensible Markup Language (XML) for the transmission of data via Application Programming Interface (API). Utilizing ETL tools such as SQL Server Integration Services (SSIS) allows the registry to define workflows for processing data and ensuring process integrity.

In March 2018, APX successfully completed a Service Organization Controls (SOC) 2 Type II examination related to security, availability and processing integrity principles defined by the American Institute of Certified Public Accountants (AICPA). Service Organization Control (SOC) reports are internal control reports on the services provided by a service organization designed to provide valuable information to help users assess and address the risks associated with an outsourced service.

**B. Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none, “N/A”*):**

In March 2020, APX successfully completed another Service Organization Controls (SOC) 2 Type II examination related to security, availability and processing integrity principles defined by the American Institute of Certified Public Accountants (AICPA).

In addition to the security provisions related to the Reserve’s registry infrastructure, the Reserve has internal processes for how it manages its data within the Registry. The Reserve limits the functionality and access of internal staff users to only the core functions they need to implement the program per their organizational role. Internally, only the Reserve Administrator and Vice President of Programs has full access to all registry functions. Furthermore, the Reserve has additional internal operating procedures for how one communicates about data in the Reserve. Registry data information is not shared with external parties, including account holders. If account holders need assistance with access to the registry, they must use the built-in functionality for resetting passwords. The Reserve only provides registry support to users who can authenticate their identity.

Are policies and robust procedures in place to...	
a) prevent the programme registry administrators from having financial, commercial or fiduciary conflicts of interest in the governance or provision of registry services? ( <i>Paragraph 2.4.6</i> )	<input checked="" type="checkbox"/> YES
b) ensure that, where such conflicts arise, they are appropriately declared, and addressed and isolated? ( <i>Paragraph 2.4.6</i> )	<input checked="" type="checkbox"/> YES

Summarize and provide evidence of the policies and procedures referred to in a) and b):

**A.** Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:

Because the program is administered by employees of the Climate Action Reserve, the policies applicable to this question are those dictating employee conflict of interest. Employees of the Climate Action Reserve shall at all times act in a manner consistent with their responsibilities to the Reserve and shall exercise particular care that no detriment to the organization results from conflicts between their personal interests and those of the Reserve. This policy is to be interpreted and applied in a manner that will best serve the interests of the Climate Action Reserve. A Conflict of Interest occurs if an Employee is in a position to participate in or influence a decision of the Reserve that will have a reasonably foreseeable material financial effect on one or more of the Employee’s interests and if that effect is distinguishable from the effect on the public generally.

The Reserve’s comprehensive conflict of interest policy, which is described in Section 2-9 of our Personnel Policy Handbook, is available upon request. Every employee signs a conflict of interest declaration on an annual basis, reaffirming their adherence to this policy.

Relevant information provided in response to the September 2019 information request:

The relevant sections of the Reserve’s Personnel Policy Handbook have been attached to this response. This handbook is confidential. The handbook contains text that specifies how COI would be addressed, if identified:

(3) If it is determined that the Employee has a reasonably foreseeable Material Financial Interest in the Decision, then determine if the effect is distinguishable from the effect on the public generally. If the effect of the reasonably foreseeable Material Financial Interest is indistinguishable from the effect on the public generally, then he or she does not have a Conflict of Interest within the meaning of this policy. If the reasonably foreseeable Material Financial Interest is distinguishable from the effect on the public generally, then the Employee does have a Conflict of Interest within the meaning of this policy and must not participate in the Decision.

Relevant information provided in response to the September 2019 information request:

Reserve’s electronic registry contractor, APX, follows a conflict of interest (COI) policy that conforms to policies used in US securities markets. In summary, its COI policy is: “APX will not open a registry account for any employee or APX, Inc for the purposes of holding environmental instruments.” The specific sections of their employee manual regarding COI are reprinted below.

The relevant sections of the Reserve’s Personnel Policy Handbook have been attached to this response. This handbook is confidential. The handbook contains text that specifies how COI would be addressed, if identified:

(3) If it is determined that the Employee has a reasonably foreseeable Material Financial Interest in the Decision, then determine if the effect is distinguishable from the effect on the public generally. If the effect of the reasonably foreseeable Material Financial Interest is indistinguishable from the effect on the public generally, then he or she does not have a Conflict of Interest within the meaning of this policy. If the reasonably foreseeable Material Financial Interest is distinguishable from the effect on the public generally, then the Employee does have a Conflict of Interest within the meaning of this policy and must not participate in the Decision.

**B.** Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none, “N/A”*):

N/A

Are provisions in place...	
a) ensuring the screening of requests for registry accounts? ( <i>Paragraph 2.4.7</i> )	<input checked="" type="checkbox"/> YES
b) restricting the programme registry (or registries) accounts to registered businesses and individuals? ( <i>Paragraph 2.4.7</i> )	<input checked="" type="checkbox"/> YES
c) ensuring the periodic audit or evaluation of registry compliance with security provisions? ( <i>Paragraph 2.4.8</i> )	<input checked="" type="checkbox"/> YES

Summarize and provide evidence of the registry security provisions referred to in a) through c):

**A.** Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:

The Climate Action Reserve follows a strict Know Your Client (KYC) process for any and all account applications. Through this process, the applicant must submit a comprehensive compilation of documentation to ensure the legitimacy and integrity of the applicant. The applicant must also submit professional references. The Reserve reviews all documentation and contacts references to ensure the applicant is a good faith actor. The Reserve process is similar to the KYC process enforced by the California Air Resources Board for its compliance cap-and-trade program, but the Reserve process is more exhaustive and rigorous in its scope and application.

Applicants seeking an account are required to submit proof of identification, bank statements, articles of incorporation, board authorization to create an account, board authorization for the account manager to serve in that role, among other documentation, all of which is reviewed for legitimacy by multiple Reserve staff. The Reserve additionally checks relevant government agencies for any record of legal action taken against the entity.

The process for obtaining an account on the registry is described in detail in Section 3.3.2 of the Program Manual (<http://www.climateactionreserve.org/how/program/program-manual/>) and in Section 2 of the Reserve User Guide (<http://www.climateactionreserve.org/wp-content/uploads/2016/08/2016-Reserve-User-Guide-1.pdf>).

**B.** Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none, “N/A”*):

N/A

Question 3.5 Legal nature and transfer of units

Does the programme define and ensure the following:	
a) the underlying attributes of a unit? (Paragraph 2.5)	<input checked="" type="checkbox"/> YES
b) the underlying property aspects of a unit? (Paragraph 2.5)	<input checked="" type="checkbox"/> YES

Summarize and provide evidence of the processes, policies, and/or procedures referred to in a) and b), including their availability to the public:

**A.** Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:

In the Reserve, GHG reductions and removals are recognized as Climate Reserve Tonnes or CRTs, which are equal to one metric ton of carbon dioxide equivalent (CO<sub>2</sub>e) reduced or sequestered. After projects are registered, CRTs are issued based on the GHG reduction or removal amount reported by the project developer and confirmed by an approved independent verification body. CRTs are issued only on an ex post basis (i.e., after verification that reduction or removal activities have actually occurred) and only for GHG reductions or removals that occur within the project crediting period. For transparency, each CRT has a unique serial number with embedded information that identifies the project type, location, developer, and vintage. The unique serial number persists as CRTs are transferred between accounts or are retired and become offsets.

This is described in Section 3.5 of the Program Manual

(<http://www.climateactionreserve.org/how/program/program-manual/>)

In addition, each account holder must sign and adhere to a strict Terms of Use document prior to using the Reserve’s offset project registry (available here: <http://www.climateactionreserve.org/open-an-account/>). This document goes into further detail regarding the legal ownership rights around CRTs.

Both the Program Manual and Terms of Use are public documents, freely able to be reviewed at any time by any interested party.

Relevant information provided in response to the September 2019 information request:

Ownership rights over credits within the Reserve registry system are detailed through Sections 3 and 9 of the Terms of Use, which all Reserve Account Holders must agree to in order to participate in the program. The definition of a Climate Reserve Tonne (CRT) is provided in the Program Manual.

Specifically, any credits within the Reserve registry are required to be held within the account of the user that owns all legal title and Beneficial Ownership Rights, with limited exceptions as described in Section 9(b) and 9(c) of the Terms of Use

**B.** Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none, “N/A”*):

N/A

**Question 3.6 Validation and verification procedures**

Are standards, requirements, and procedures in place for... ( <i>Paragraph 2.6</i> )	
a) the validation of activities?	<input type="checkbox"/> YES
b) the verification of emissions reductions?	<input checked="" type="checkbox"/> YES
c) the accreditation of validators?	<input type="checkbox"/> YES
d) the accreditation of verifiers?	<input checked="" type="checkbox"/> YES

Provide evidence of the standards, requirements, and procedures referred to in a) through d), including their availability to the public:

**A.** Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:

The Climate Action Reserve has operated a rigorous, third-party verification program since its inception, beginning with the inventory verification program developed by the California Climate Action Registry. The Reserve is an active member of the American National Standards Institute’s (ANSI) Greenhouse Gas Validation/Verification Accreditation Committee (GVAC). We require ANSI accreditation for verification bodies serving our voluntary program, and ARB accreditation for verification bodies serving our compliance registry. We also require individual lead verifiers to successfully complete (and pass an exam for) protocol-specific training, delivered by Reserve staff (or ARB, in the case of the compliance offset program).

Verification processes can be found in Section 3.4 of the Program Manual (<http://www.climateactionreserve.org/how/program/program-manual/>). Verification processes in general are dictated by the standards set forth in the Verification Program Manual (<http://www.climateactionreserve.org/how/verification/verification-program-manual/>), which is available to the public.

The Climate Action Reserve program does not undertake validation due to the nature of our standardized protocol development process, background of which can be found in Section 3.4.1 of the Program Manual (<http://www.climateactionreserve.org/how/program/program-manual/>). Therefore, there is no process for validation or validator accreditation. The steps which typically occur in validation in other programs do occur in the Reserve’s program, but they are conducted through other stages, such as protocol development, review and approval of project submittal documentation, and the initial verification of the project. Thus, at the end of the first project verification, it can reasonably be considered that the project has completed both validation *and* verification.

**B.** Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none*, “N/A”):

The name of the Reserve’ verification accreditation body has changed to ANSI National Accreditation Board (“ANAB”). Accreditation requirements under ANAB have not changed.

The individual lead verifier training requirements have been updated to require verifiers to successfully complete a sector-specific training, as opposed to completing protocol-specific trainings.

Question 3.7 Programme governance

Does the programme publicly disclose who is responsible for the administration of the programme? ( <i>Paragraph 2.7</i> )	<input checked="" type="checkbox"/> YES
Does the programme publicly disclose how decisions are made? ( <i>Paragraph 2.7</i> )	<input checked="" type="checkbox"/> YES

Provide evidence that this information is available to the public:

**A.** Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:

Details regarding program administration and decision making processes related to the issuance of CRTs can be found throughout the Program Manual (<http://www.climateactionreserve.org/how/program/program-manual/>) as well as in Section 6 of the Verification Program Manual

(<http://www.climateactionreserve.org/how/verification/verification-program-manual/>). All Reserve staff, along with their contact information, are listed on the website (<http://www.climateactionreserve.org/about-us/staff/>).

There is also a detailed list of staff contacts for specific topics and project types:

<http://www.climateactionreserve.org/contact-us/>. Generic email aliases are employed in several instances to ensure that queries will receive a timely response regardless of individual staff availability.

The program administration and decision-making process are somewhat different for the Reserve’s work as an Offset Project Registry for the State of California. This affects the units known as Registry Offset Credits (ROCs) in the project registry. For this program, rules and procedures are set out by the official text of the California Cap-and-Trade Regulation (California Code of Regulations, Title 17, Sections 95801-96022, available online at <http://oal.ca.gov/publications/ccr/>). Reserve staff process projects and implement registry services according to direct guidance from the California Air Resources Board (CARB). Where CARB has not issued guidance for a particular issue, Reserve staff consult directly with CARB staff. All information relating to the California compliance offset program, including copies of the approved Compliance Offset Protocols and contact information for program staff and management can be found at: <https://ww3.arb.ca.gov/cc/capandtrade/offsets/offsets.htm>.

**B.** Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none, “N/A”*):

N/A

Can the programme demonstrate that it has... ( <i>Paragraph 2.7.2</i> )	
a) been continuously governed for at least the last two years?	<input checked="" type="checkbox"/> YES
b) been continuously operational for at least the last two years?	<input checked="" type="checkbox"/> YES
c) a plan for the long-term administration of multi-decadal programme elements?	<input checked="" type="checkbox"/> YES
d) a plan for possible responses to the dissolution of the programme in its current form?	<input checked="" type="checkbox"/> YES

Provide evidence of the activities, policies, and procedures referred to in a) through d):

**A.** Information contained in the programme’s original application, including information submitted in response to

follow-up discussions and written questions pertaining to this topic:

- a) The Climate Action Reserve has been in continuous operation (originally under the name “California Climate Action Registry”) since 2001. The genesis of the organization is documented through the enabling legislation, California Senate Bill 1771 ([http://www.leginfo.ca.gov/pub/99-00/bill/sen/sb\\_1751-1800/sb\\_1771\\_bill\\_20000930\\_chaptered.pdf](http://www.leginfo.ca.gov/pub/99-00/bill/sen/sb_1751-1800/sb_1771_bill_20000930_chaptered.pdf)) and, subsequently, CA SB 527 ([http://www.leginfo.ca.gov/pub/01-02/bill/sen/sb\\_0501-0550/sb\\_527\\_bill\\_20011012\\_chaptered.pdf](http://www.leginfo.ca.gov/pub/01-02/bill/sen/sb_0501-0550/sb_527_bill_20011012_chaptered.pdf)). In terms of evidence of continued operation specifically for the last two years, the following evidence is available:
- Annual reports through calendar year 2017: <http://www.climateactionreserve.org/about-us/>
  - Records of continuous CRT issuance in the online registry: <https://thereserve2.apx.com/myModule/rpt/myrpt.asp?r=112>
  - Regular program announcements from 2009-2019: <http://www.climateactionreserve.org/category/announcements/>
  - Recordings of webinars and presentations from 2009-2019: <http://www.climateactionreserve.org/resources/presentations/>
  - The Form 990 which is submitted to the United States Internal Revenue Service each year is available upon request.

The Climate Action Reserve has an active, engaged, and knowledgeable Board of Directors who would see to an orderly transition of long-term program elements in the case of a dissolution of the Reserve. This could include ongoing offset projects, which would have opportunities to transition to other registries, as well as the ongoing monitoring and reporting related to project types which are subject to the risk of reversal. No such plan is available in written form, but we will consider developing such a document.

Relevant information provided in response to the September 2019 information request:

The Reserve was founded by the State of California in 2001, and intends to be around a very long time to help solve the climate change challenge. Nevertheless, if and when the decision is made to dissolve the Reserve’s operations, our Articles of Incorporation are very clear about next steps and follow US Nonprofit Public Benefit Corporation Law for non-profits:

“On the dissolution or winding up of this corporation, its assets remaining after payment, or provision for payment, of all debts and liabilities of this corporation, shall be distributed to a nonprofit fund, foundation, or corporation which is organized and operated exclusively for charitable, scientific, and educational purposes and which has established its tax-exempt status under Section 501(c)(3) of the Code.” (Climate Action Reserve Articles of Incorporation, Section 5, 2016)

This responsibility would fall to the President of the Reserve, working in concert with its Board of Directors, to attend to such matters.

**B. Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none*, “N/A”):**

The links provided above will take one to more recent reports, webinars, and presentations that have occurred since our original submission.

Are policies and robust procedures in place to...	
a) prevent the programme staff, board members, and management from having financial, commercial or fiduciary conflicts of interest in the governance or provision of programme services? ( <i>Paragraph 2.7.3</i> )	<input checked="" type="checkbox"/> YES
b) ensure that, where such conflicts arise, they are appropriately declared, and addressed and isolated? ( <i>Paragraph 2.7.3</i> )	<input checked="" type="checkbox"/> YES

Summarize and provide evidence of the policies and procedures referred to in a) and b):

**A.** Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:

Employees of the Climate Action Reserve shall at all times act in a manner consistent with their responsibilities to the Reserve and shall exercise particular care that no detriment to the organization results from conflicts between their personal interests and those of the Reserve (policy detailed in the Reserve’s Personnel Policy Handbook). This policy is to be interpreted and applied in a manner that will best serve the interests of the Climate Action Reserve. A Conflict of Interest occurs if an Employee is in a position to participate in or influence a Decision of the Reserve that will have a reasonably foreseeable Material Financial Effect on one or more of the Employee’s interests and if that effect is distinguishable from the effect on the public generally.

The Reserve’s comprehensive conflict of interest policy, which is described in Section 2-9 of our Personnel Policy Handbook, is available upon request. Every employee signs a conflict of interest declaration on an annual basis, reaffirming their adherence to this policy.

**B.** Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none, “N/A”*):

N/A

If the programme is not directly and currently administered by a public agency, can the programme demonstrate up-to-date professional liability insurance policy of at least USD\$5M? ( <i>Paragraph 2.7.4</i> )	<input type="checkbox"/> YES
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Provide evidence of such coverage:

**A.** Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:

See Attachment 1: Certificate of Coverage 2019 (not provided again as it has been superseded by our 2022 Certificate).

**B.** Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none, “N/A”*):

See new Attachment 1: Certificate of Coverage 2022

Question 3.8 Transparency and public participation provisions

Does the programme publicly disclose... ( <i>Paragraph 2.8</i> )	
a) what information is captured and made available to different stakeholders?	<input checked="" type="checkbox"/> YES
b) its local stakeholder consultation requirements (if applicable)?	<input checked="" type="checkbox"/> YES
c) its public comments provisions and requirements, and how they are considered (if applicable)?	<input checked="" type="checkbox"/> YES

Provide evidence of the public availability of items a) through c):

**A.** Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:

Publicly disclosed information is detailed in Section 3.3.13 of the Program Manual (<http://www.climateactionreserve.org/how/program/program-manual/>). Local stakeholder consultation requirements are currently being drafted and will be implemented in the next version of the Program Manual. The only existing Reserve protocol where it has been deemed that public consultations are necessary prior to project implementation (the Mexico Forest Project Protocol) already contains explicit provisions on this topic. Public comment provisions and requirements are described in Section 4.2.4 of the Program Manual. Public comment periods (and publication of the Reserve’s responses) are required for all new protocol development, as well as significant protocol revisions. We also welcome unsolicited comments and feedback at any time, although such comments will not necessarily have their responses made public.

**B.** Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none, “N/A”*):

N/A

Does the programme conduct public comment periods relating to... ( <i>Paragraph 2.8</i> )	
a) methodologies, protocols, or frameworks under development?	<input checked="" type="checkbox"/> YES
b) activities seeking registration or approval?	<input checked="" type="checkbox"/> YES
c) operational activities (e.g., ongoing stakeholder feedback)	<input checked="" type="checkbox"/> YES
d) additions or revisions to programme procedures or rulesets?	<input checked="" type="checkbox"/> YES

Summarize and provide evidence of any programme procedures referred to in a) through d):

**A.** Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:

Public comment periods are described in Section 4, and specifically Section 4.2.4, of the Program Manual. Public comment periods (and publication of the Reserve’s responses) are required for all new protocol development, as well as significant protocol revisions. We also welcome unsolicited comments and feedback at any time, although such comments will not necessarily have their responses made public.

**B.** Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none, “N/A”*):

N/A

**Question 3.9 Safeguards system**

Are safeguards in place to address... ( <i>Paragraph 2.9</i> )	
a) environmental risks?	<input checked="" type="checkbox"/> YES
b) social risks?	<input checked="" type="checkbox"/> YES

Summarize and provide evidence of the safeguards referred to in a) and b), including their availability to the public:

**A.** Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:

Section 2.4.6 of the Reserve’s Program Manual (<http://www.climateactionreserve.org/how/program/program-manual/>) enshrines guidance to ensure all Reserve offset protocols contain terms to ensure that GHG projects do no harm. The scope of this requirement includes environmental and social themes that include air and water quality, natural ecosystems and specialized habitats, sustained economies, and environmental justice. A number of mechanisms are employed to ensure these requirements are met. For every offset project, project developers must sign an Attestation of Regulatory Compliance, attesting that their projects have met these requirements. Each time offsets are sought, the project developer must also provide evidence to the verifier reviewing their project that the project continues to meet these requirements.

Relevant information provided in response to the September 2019 information request:

As detailed in our application, these safeguards are included in both the Reserve’s Offsets Program Manual and the individual project protocols. Section 2.4.6 of the Program Manual addresses Regulatory Compliance and Environmental and Social Safeguards. To start, the Reserve’s offsets program only serves projects in the United States, Mexico, and Canada. Generally speaking, these are jurisdictions with robust regulatory and enforcement structures. As a rule, we do not issue offset credits during periods of time where a project activity is in violation of an applicable regulation. This is assessed, in detail, by the third party verifier for each and every reporting period prior to credit issuance. We provide one specific example to illustrate how these risks are handled. For a landfill gas destruction project in the United States, during verification the verifier will consult with the US EPA’s Enforcement and Compliance History Online database (ECHO). Every notice of violation (NOV) which has been issued to that facility will be listed in ECHO. If a NOV is found, the verifier will discuss the specifics with the project developer and the Reserve to establish whether or not the NOV is related to the offset project activities. In addition, the verifiers have a common practice of contacting the relevant regulatory agency to confirm whether or not any violations have been identified at the project during the reporting period.

In addition to this requirement for regulatory compliance, our program has an overarching policy to “do no harm,” above and beyond legal requirements. If a potential for harm is identified during the development of a project protocol, generally through our consultations with expert stakeholders and/or the public, the Reserve will take steps to add policies or limits within the protocol to avoid such harms. For example, with ozone depleting substances destruction projects, it was determined that improper combustion of CFCs could lead to emission of furans and/or

dioxins, which are highly toxic. To avoid such emissions, the Reserve instituted strict guidelines around eligible destruction facilities, relying on external regulatory and testing regimes, including the Technology and Economic Assessment Panel of the United Nations Environment Programme (under the auspices of the Montreal Protocol) and the permitting requirements of the United States Environmental Protection Agency under the Resource Conservation and Recovery Act. Ongoing monitoring and performance testing is required to ensure compliance.

Lastly, in the most recent update to our Program Manual (recently published for public comment through October 4th, to be finalized and published soon after) [now adopted as of March 2021] we have added Section 3.5.2, which outlines a Feedback and Grievance Process that may be employed by any stakeholder who feels that a project may be causing environmental or social harm.

Relevant information provided during the October 21, 2019 discussion:

We do not have a program-wide requirement for individual projects to undertake a social or community impact assessment. There may, however, be requirements set at the protocol level for specific project types. For example, our Mexico Forest Project Protocol requires engaging with the local community prior to project implementation. As noted in prior responses, we have begun the process of creating a framework through which projects may communicate sustainable development benefits on a voluntary basis.

**B. Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none, “N/A”*):**

N/A

**Question 3.10 Sustainable development criteria**

Does the programme use sustainable development criteria? ( <i>Paragraph 2.10</i> )	<input checked="" type="checkbox"/> YES
Does the programme have provisions for monitoring, reporting and verification in accordance with these criteria? ( <i>Paragraph 2.10</i> )	<input checked="" type="checkbox"/> YES

Summarize and provide evidence of the policies and procedures referred to above:

**A. Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:**

The Reserve’s offsets program does not currently require reporting against the UN Sustainable Development Goals (SDGs), or other sustainable development criteria, beyond the environmental and social themes mentioned above, including air and water quality, natural ecosystems and specialized habitats, sustained economies, and environmental justice. However, beyond GHG reductions and removals, the Program Manual ([http://www.climateactionreserve.org/wp-content/uploads/2015/08/Climate Action Reserve Program Manual\\_090115.pdf](http://www.climateactionreserve.org/wp-content/uploads/2015/08/Climate_Action_Reserve_Program_Manual_090115.pdf)) includes explicit policies to ensure that projects do not cause environmental harms. Section 2.4.6 lays out the relevant policies and the Reserve’s rationale. In addition, the Reserve is preparing an update to the Program Manual, expected to be issued in mid-2019, which will explicitly encourage project developers to “identify, measure, and report on any non-GHG benefits of the project activities, such as alignment with the United Nations’ Sustainable Development Goals.”

The Reserve always considers the non-GHG impacts of offset projects during the development of our standardized offset project protocols. All of our offset project activities contribute to the Sustainable Development Goals (SDGs) in some way (mainly SDGs 6, 7, 8, 9, 11, 12, and 13). When choosing project protocols to pursue, we give extra weight to those with additional co-benefits, though this does not mean we will not pursue high-quality GHG emission reduction activities that do not provide significant co-benefits. For any project activities with the potential for negative non-GHG environmental outcomes (e.g., forestry), we prescribe implementation of environmental safeguards. This is all detailed within the individual project protocols (generally a subsection of Section 3, Eligibility). In all cases projects are not eligible for crediting during periods when they are out of compliance with applicable environmental regulations. There is also a published environmental safeguards policy on our website.

**B. Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (if none, “N/A”):**  
 In response to ICAO’s directive that qualified programs identify how projects address the UN’s SDG criteria, the Reserve added the option to identify SDG information for each of the UN criteria. Many projects now reflect that information and the Reserve continues to encourage project developers to expand their explanations of if/how a specific project addresses any of the UN SDG criteria. Further information can be found in our Registry at <https://thereserve2.apx.com/myModule/rpt/myrpt.asp>.

The Reserve’s Offset Program Manual indicates where the Reserve has incorporated sustainable benefits into its work:

- In Section 1.2 (Reserve Program Principles), an additional statement has been added: “Projects are encouraged to identify, measure, and report on any non-GHG benefits of the project activities, such as alignment with the United Nations’ Sustainable Development Goals.”
- Section 2.4.6 (Regulatory Compliance and Environmental and Social Safeguards) has been updated to note that “individual protocols may contain requirements designed specifically to ensure environmental and social safeguards. Individual protocols may allow for project developers to report measures taken to avoid negative impacts. Individual protocols may also encourage project developers to report on the potential environmental co-benefits of their projects, such as reductions in other air pollutants, improvements in water quality, enhancement of wildlife habitat, etc.”
- Section 3.5.1 (Local Stakeholder Consultations) is new and explains that certain project protocols will include requirements for local stakeholder consultations for each project.
- Section 3.5.2 (Feedback and Grievance Process) is new and makes public the Reserve’s existing process for handling stakeholder feedback and grievances, including those related to potential social or environmental harms caused by the project on the local community.

**Question 3.11 Avoidance of double counting, issuance and claiming**

Does the programme use sustainable development criteria? ( <i>Paragraph 2.10</i> )	<input checked="" type="checkbox"/> YES
Does the Programme provide information on how it addresses double counting, issuance and claiming in the context of evolving national and international regimes for carbon markets and emissions trading? ( <i>Paragraph 2.11</i> )	<input checked="" type="checkbox"/> YES

Summarize and provide evidence of the information referred to above, including its availability to the public:

**A.** Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:

The original application noted that “No additional information is requested here.” The Reserve did not provide any additional information.

Relevant information provided August 16, 2019 in response clarification questions:

As regards the Avoidance of Double Counting Working Group guidelines, it is our belief that these guidelines are fully consistent with the EUC and the supplementary guidance provided by ICAO. The working group included members with access to the closed-door ICAO process, and the work was specifically targeted at creating guidelines for CORSIA. For the most part, the guidelines are organized along the same concepts as the EUC.

**2.7 Eligibility Criterion: Are only counted once towards a mitigation obligation**—Measures must be in place to avoid:

**2.7.1 Double issuance** (which occurs if more than one unit is issued for the same emissions or emissions reduction).

Double issuance is avoided through rigorous protocol development, transparent registry operations, legal attestations, and credit serialization. The protocols avoid double issuance through restriction of the GHG Assessment Boundary to avoid overlapping with other crediting mechanisms. The registry avoids double issuance through multiple steps: staff consult with other registries prior to project listing; project developers sign legal attestations guaranteeing single registration of their units; verifiers confirm all attestations; and staff consult with other registries again prior to credit issuance.

**2.7.2 Double use** (which occurs when the same issued unit is used twice, for example, if a unit is duplicated in registries).

Double use is avoided through credit serialization, public retirement reports, software controls around credit retirement and/or cancellation, and a strict Terms of Use agreement that must be signed by all registry account holders (<http://www.climateactionreserve.org/open-an-account/>). As explained above, staff are regularly checking other registries to confirm that our projects are not claiming emission reductions for the same activities and time periods as those reported to our program. In addition, all credit retirements are both public and permanent. A credit may not be retired twice. Any offset user can query the serial numbers of their credits to ensure that they have been properly retired and that the retirement reason is clearly indicated (in at least as much detail as desired by the offset user).

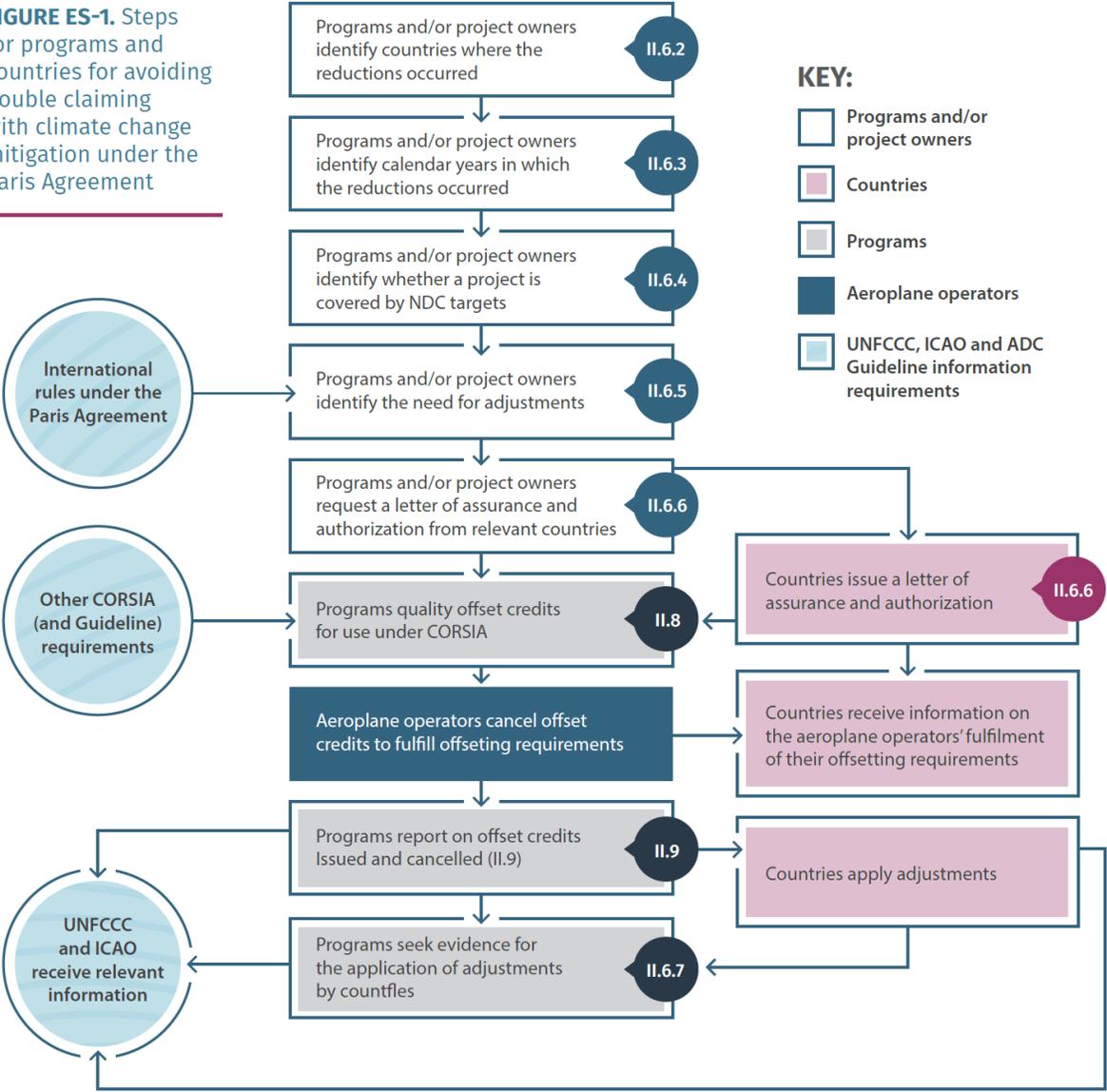
**2.7.3 Double claiming** (which occurs if the same emissions reduction is counted twice by both the buyer and the seller (i.e., counted towards the climate change mitigation effort of both an airline and the host country of the emissions reduction activity)). In order to prevent double claiming, eligible programs should require and demonstrate that host countries of emissions reduction activities agree to account for any offset units issued as a result of those activities such that double claiming does not occur between the airline and the host country of the emissions reduction activity.

Double claiming is prohibited by the Reserve’s Terms of Use

(<http://www.climateactionreserve.org/open-an-account/>). Enforcement is supported through the serialization of offset credits and the transparent publication of information related to projects, credits, issuance, and retirement.

In addition, there are going to be several changes implemented following the publication of the Guidelines for Avoiding Double Counting (<https://www.adc-wg.org/guidelines-version-1-0>). We are working with our software provider, APX, Inc., to add functionality to the public registry system to indicate which credits have been qualified as eligible for use in CORSIA. The process for credit qualification is summarized in Figure ES-1 of the ADC guidelines, included below.

**FIGURE ES-1.** Steps for programs and countries for avoiding double claiming with climate change mitigation under the Paris Agreement



As explained in the ADC guidelines, when a project developer or credit holder wishes to have their credits qualified as eligible for CORSIA, the Reserve will identify the host country where the emission reductions occurred, identify the calendar years of the emission reductions, identify whether the project is covered by a NDC target, consult with the host country and the rules developed under the Paris Agreement to determine whether a corresponding adjustment would be warranted (if so, request a letter of assurance and authorization from the host country), and either qualify or disqualify the credits as eligible for use under CORSIA, depending on the response from the host country. The status of this process for each project and/or batch of credits will be made public to the extent necessary and practicable. Procedures will also be in place for staff to check in on host country reporting to the UNFCCC to confirm that corresponding adjustments were, in fact, recorded for the relevant projects, and to report on the status of these adjustments to ICAO, the project developers, and the airlines. We are confident our procedures can avoid double counting problems, although the exact procedures we will employ will also depend on the guidance to be provided by ICAO and rules yet to be established by the UNFCCC under Article 6. Until the “Paris Rulebook” is finalized in this regard, there is no carbon program in the world who can be sure their procedures comply with the needs of both ICAO and the UNFCCC.

#### 2.7.4 Guidelines for interpretation of the “Only counted once towards a mitigation obligation” criterion

2.7.5 *Double-issuance*: The program should have procedures in place for program and/or registry administrator monitoring of program registry(ies) to ensure the transparent transfer of units between registries; and that only one unit is issued for one tonne of mitigation.

Double issuance is avoided through rigorous protocol development, transparent registry operations, legal attestations, and credit serialization. The protocols avoid double issuance through restriction of the GHG Assessment Boundary to avoid overlapping with other crediting mechanisms. The registry avoids double issuance through multiple steps: staff consult with other registries prior to project listing; project developers sign legal attestations guaranteeing single registration of their units; verifiers confirm all attestations; and staff consult with other registries again prior to credit issuance. There are no transfers of units between our registry and other registries. Credits may be publicly cancelled (as opposed to “retired”) from our registry for two purposes: 1) to be reissued as California Air Resources Board Compliance Offset Credits in the California Compliance Instrument Tracking System Service (CITSS); or, 2) to be reissued as Verified Carbon Units (VCUs) in the VCS program, operated by Verra. In either case, the credits must be publicly canceled from our registry. Otherwise, all transfers happen between account holders within our registry, allowing for direct tracking of units from issuance through to retirement or cancellation.

The quantity of units issued as related to the quantity of emissions reduced is confirmed through the process of independent, third-party verification. Our verification bodies must be accredited to ISO standards by the American National Standards Institute, approved by the California Air Resources Board, or accredited by Entidad Mexicana de Acreditacion, A.C. (for verification bodies in Mexico).

2.7.6 *Double-use*: The program should have procedures in place for program and/or registry administrator monitoring of program registry(ies) to ensure that one unit is issued or transferred to, or owned or cancelled by, only one entity at any given time.

Double use is prohibited by the Reserve’s Terms of Use (<http://www.climateactionreserve.org/open-an-account/>). Enforcement is supported through the serialization of offset credits and the transparent publication of information related to projects, credits, issuance, and retirement. Every unit has a serial number and no single unit may exist in more than one registry account simultaneously.

Account holders are only allowed to hold active credits on behalf of another beneficial owner when they are a regulated entity, as defined in the Terms of Use, above.

It is impossible for more than one account holder to retire the same credit, and no offsetting claims can be supported without a corresponding retirement in the registry system. Any retirements for compliance with CORSIA would be public, just as with all other retirements.

*2.7.7 Double-selling:* Programs should have procedures in place to discourage and prohibit the double-selling of units. Double selling occurs when one or more entities sell the same unit more than once.

Double selling is prohibited by the Reserve’s Terms of Use (<http://www.climateactionreserve.org/open-an-account/>). Enforcement is supported through the serialization of offset credits and the transparent publication of information related to projects, credits, issuance, and retirement. Every unit has a serial number and no single unit may exist in more than one registry account simultaneously. Account holders are only allowed to hold active credits on behalf of another beneficial owner when they are a regulated entity, as defined in the Terms of Use, above. Such entities are subject to auditing by the Federal Government of the United States.

It is impossible for more than one account holder to retire the same credit, and no offsetting claims can be supported without a corresponding retirement in the registry system. Any retirements for compliance with CORSIA would be public, just as with all other retirements.

*2.7.8 Host country attestation to the avoidance of double-claiming:* Only emissions units originating in countries that have attested to their intention to properly account for the use of the units toward offsetting obligations under the CORSIA, as specified in paragraph (and sub-paragraphs of) 3.7.9, should be eligible for use in the CORSIA. The program should obtain, or require activity proponents to obtain and provide to the program, written attestation from the host country’s national focal point or focal point’s designee.<sup>7</sup> The attestation should specify, and describe any steps taken, to prevent mitigation associated with units used by operators under CORSIA from also being claimed toward a host country’s national mitigation target(s) / pledge(s). Host country attestations should be obtained and made publicly available prior to the use of units from the host country in the CORSIA.

As explained in the ADC guidelines, when a project developer or credit holder wishes to have their credits qualified as eligible for CORSIA, the Reserve will identify the host country where the emission reductions occurred, identify the calendar years of the emission reductions, identify whether the project is covered by a NDC target, consult with the host country and the rules developed under the Paris Agreement to determine whether a corresponding adjustment would be warranted (if so, request a letter of assurance and authorization from the host country), and either qualify or disqualify the credits as eligible for use under CORSIA, depending on the response from

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<sup>7</sup> Agency responsible for a host country’s national emissions inventory reporting (“National Focal Point”); including under the Paris Agreement.

the host country. The status of this process for each project and/or batch of credits will be made public to the extent necessary and practicable. Procedures will also be in place for staff to check in on host country reporting to the UNFCCC to confirm that corresponding adjustments were, in fact, recorded for the relevant projects, and to report on the status of these adjustments to ICAO, the project developers, and the airlines.

2.7.9 *Double-claiming procedures*: The program should have procedures in place requiring that activities take approach(es) described in these sub-paragraphs to prevent double-claiming, which attestations should confirm:

2.7.9.1 Emissions units are created where mitigation is not also counted toward national target(s) / pledge(s) / mitigation contributions / mitigation commitments.

First of all, the Reserve only develops offset project protocols for activities that fall outside of any legally-binding commitments, goals, emissions caps, or other potential mandates that would render the emission reductions to be considered “legally required.” Second, every project developer, for every reporting period, prior to every issuance, must sign an Attestation of Voluntary Implementation. Through this document they legally attest to the additionality of the project in this regard. In addition, the Reserve shall implement the procedures necessary to seek letters of assurance and authorization from project host countries when it has been determined that qualification and use for CORSIA may present a risk of double claiming with that nation’s own emission reduction efforts and reporting.

2.7.9.2 Mitigation from emissions units used by operators under the CORSIA is appropriately accounted for by the host country when claiming achievement of its target(s) / pledges(s) / mitigation contributions / mitigation commitments, in line with the relevant and applicable international provisions.

As explained in the ADC guidelines, when a project developer or credit holder wishes to have their credits qualified as eligible for CORSIA, the Reserve will identify the host country where the emission reductions occurred, identify the calendar years of the emission reductions, identify whether the project is covered by a NDC target, consult with the host country and the rules developed under the Paris Agreement to determine whether a corresponding adjustment would be warranted (if so, request a letter of assurance and authorization from the host country), and either qualify or disqualify the credits as eligible for use under CORSIA, depending on the response from the host country. The status of this process for each project and/or batch of credits will be made public to the extent necessary and practicable. Procedures will also be in place for staff to check in on host country reporting to the UNFCCC to confirm that corresponding adjustments were, in fact, recorded for the relevant projects, and to report on the status of these adjustments to ICAO, the project developers, and the airlines.

2.7.9.3 If program procedures provide for the use of method(s) to avoid double-claiming which are not listed above, the GMTF, or other appropriate technical expert body, should evaluate and make a recommendation regarding the sufficiency of the approach prior to any final determination of the program’s eligibility.

We believe our current and forthcoming policies and procedures (as outlined in the ADC Guidelines v1.0) are entirely inline with the methods described by ICAO.

2.7.10 *Transparent communications:* The program should make publicly available any national government decisions related to accounting for units used in ICAO, including the contents of host country attestations described in paragraph 3.7.8; and update information pertaining to host country attestation as often as necessary to avoid double-claiming.

We are working with our software provider, APX, Inc., to add functionality to the public registry system to indicate which credits have been qualified as eligible for use in CORSIA. The status of the process for obtaining the letter of authorization and assurance for each project and/or batch of credits will be made public to the extent necessary and practicable. Procedures will also be in place for staff to check in on host country reporting to the UNFCCC to confirm that corresponding adjustments were, in fact, recorded for the relevant projects, and to report on the status of these adjustments to ICAO, the project developers, and the airlines.

2.7.11 *Comparing unit use against national reporting:* The program should have procedures in place to compare countries' accounting for emissions units in national emissions reports against the volumes of eligible units issued by the program and used under the CORSIA which the host country's national reporting focal point or designee otherwise attested to its intention to not double-claim.

While these procedures have not yet been codified, we will follow the guidance in the ADC Guidelines v1.0. Members of our Programs Team will be assigned to review reports from relevant host countries as soon as they are made available and check those reports against any letters of authorization and assurance that have been received from those countries.

2.7.12 *Program reporting on performance:* The program should be prepared to report to ICAO's relevant bodies, as requested, performance information related to, inter alia, any material instances of and program responses to country-level double-claiming; the nature of, and any changes to, the number, scale, and/or scope of host country attestations; any relevant changes to related program measures.

The Reserve's Programs Team will prepare an annual report summarizing all credit issuance, cancellation, and retirement, all requests for qualification under CORSIA, all requests for letters of authorization and assurance (and their status), all credits which have been qualified for use in CORSIA, all credits that have been retired for use in CORSIA, and the status of corresponding adjustments for all host countries and time periods that have already been reported to the UNFCCC.

2.7.13 *Reconciliation of double-claimed mitigation:* The program should have procedures in place for the program, or proponents of the activities it supports, to compensate for, replace, or otherwise reconcile double-claimed mitigation associated with units used under the CORSIA which the host country's national accounting focal point or designee otherwise attested to its intention to not double-claim.

The Reserve discussed its current operating procedures for addressing double claiming above. Once the rules for international accounting for mitigation transfers is finalized, we will adapt our procedures and policies accordingly. Nevertheless, our current views on appropriate actions include the following: For any credits that were qualified for use in CORSIA, but not retired for such use, and for which the host country does not follow through with the assured corresponding adjustment, the qualification for CORSIA shall be revoked. For any such units that have been retired for use under CORSIA, and are later found to have not been supported by a corresponding adjustment by

the host country, the Reserve will suspend qualification of credits for CORSIA from that host country, consider revoking such qualification for any other credits previously qualified from that country, notify the project developer, airline, and ICAO, and work with those bodies to replace those credits to make the system whole. The Reserve would like to note that throughout our history not a single issue involving double claiming has arisen.

**B.** Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none, “N/A”*):

In response to ICAO’s directive that qualified programs identify how projects address the UN’s SDG criteria, the Reserve added the option to identify SDG information for each of the UN criteria. Many projects now reflect that information and the Reserve continues to encourage project developers to expand their explanations of if/how a specific project addresses any of the UN SDG criteria. Further information can be found in our Registry at <https://thereserve2.apx.com/myModule/rpt/myrpt.asp>.

**PART 4: Carbon Offset Credit Integrity Assessment Criteria**

*Note*—where “evidence” is requested throughout *Part 3* and *Part 4*, the Programme should provide web links to documentation. If that is not possible, then the programme may provide evidence of programme procedures directly in the text boxes provided (by copying/pasting the relevant provisions) and/or by attached supporting documentation, as recommended in “SECTION II: INSTRUCTIONS—*Form Completion*”.

*Note*—“*Paragraph X.X*” in this form refers to corresponding paragraph(s) in Appendix A “Supplementary Information for Assessment of Emissions Unit Programmes”.

*Note*—Where the programme has any plans to revise the programme (e.g., its policies, procedures, measures, tracking systems, governance or legal arrangements), including to enhance consistency with a given criterion or guideline, provide the following information in response to any and all relevant form question(s):

- Proposed revision(s);
- Process and proposed timeline to develop and implement the proposed revision(s);
- Process and timeline for external communication and implementation of the revision(s).

**Question 4.1 Are additional**

Do the Programme’s carbon offsets... ( <i>Paragraph 3.1</i> )	
a) represent greenhouse gas emissions reductions or carbon sequestration or removals that exceed any greenhouse gas reduction or removals required by law, regulation, or legally binding mandate?	<input checked="" type="checkbox"/> YES
b) exceed any greenhouse gas reductions or removals that would otherwise occur in a conservative, business-as-usual scenario?	<input checked="" type="checkbox"/> YES

Summarize and provide evidence of the policies and procedures referred to in a) and b), including their availability to the public:

**A.** Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:

All accounting within the Reserve’s protocol follows the principle of conservativeness. Where uncertainty exists in setting a parameter value, the protocols err on the side of issuing fewer credits, as opposed to more. Throughout this application, the word “conservative” should be taken to mean “erring on the side of under-crediting.” When developing offset protocols, the Reserve maintains the following general rule (stated in Section 2.6.4 of the Program Manual; <http://www.climateactionreserve.org/how/program/program-manual/>): “methods should ensure 95% confidence that actual emissions are within +/- 5% of measured or calculated values, although required levels of accuracy will often depend on the specific magnitudes involved and their materiality.”

In regard to the verification of project emission reduction or removal assertions, the Reserve adheres to a tiered approach to the threshold for materiality, based on the volume of emission reductions or removals generated by a project in a given year. This is detailed in Section 2.3 of the Verification Program Manual (<http://www.climateactionreserve.org/how/verification/verification-program-manual/>):

- Projects registering  $\leq 25,000$  CRTs over a 12-month period shall achieve a  $>95\%$  level of accuracy ( $<5\%$  error) relative to the verification body’s calculated emission reductions or removals.
- Projects registering  $>25,000$  CRTs but  $\leq 100,000$  CRTs over a 12-month period shall achieve a  $>97\%$  level of accuracy ( $<3\%$  error) relative to the verification body’s calculated emission reductions or removals.
- Projects registering  $>100,000$  CRTs over a 12-month period shall achieve a  $>99\%$  level of accuracy ( $<1\%$  error) relative to the verification body’s calculated emission reductions or removals.
- Underestimates of emission reductions or removals are not considered material, only overestimates.

There is also a qualitative assessment of conformance with the protocol. Even if the project’s emission reduction or removal assertion meets the quantitative threshold for materiality, the project must still be in conformance with the protocol requirements (e.g., frequency of metering, etc.). Nonconformances must be rectified or the project may seek a limited variance through the official variance process (Program Manual, Section 3.3.4).

**B. Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (if none, “N/A”):**

N/A

Is additionality and baseline-setting... (Paragraph 3.1)	
a) assessed by an accredited and independent third-party verification entity?	<input checked="" type="checkbox"/> YES
b) reviewed by the programme?	<input checked="" type="checkbox"/> YES

Summarize and provide evidence of the policies and procedures referred to in a) and b), including their availability to the public:

**A. Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:**

Each of the Reserve’s standardized offset project protocols provides detailed guidance regarding standards for eligibility and additionality (Section 3 in each protocol), as well as verification guidance for the assessment of project conformance with these standards (protocols Section 8).

Each project:

- Must be additional to activities mandated by relevant laws, regulations, court orders, or other legally-binding mandates; and,
- Go above and beyond business as usual (i.e., common practice), as evidenced by conformance with each protocol’s specific Performance Standard Test. This could include technology benchmarks, performance benchmarks, financial screens, or other screens for eligibility; and,
- Must have a credible baseline, developed in accordance with protocol guidance and assessed by an accredited (and appropriately trained) third-party verifier; and,
- Have its verification report reviewed and approved by the Reserve prior to each unit issuance.

The Reserve’s approach to additionality is explained in Section 2.4 of the Program Manual (<http://www.climateactionreserve.org/how/program/program-manual/>). When a project is first submitted for listing in the project registry, Reserve staff review it against the standards and requirements of the relevant protocol prior

to approval. In addition, independent, third-party verifiers must reach reasonable assurance that the project conforms to the eligibility rules prior to every credit issuance.

**B.** Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none, “N/A”*):

N/A

Identify one or more of the methods below that the programme has procedures in place to ensure, and to support activities to analyze and demonstrate, that credited mitigation is additional; which can be applied at the project-and/or programme-level: (*Paragraphs 3.1, and 3.1.2 - 3.1.3*)

- Barrier analysis
- Common practice / market penetration analysis
- Investment, cost, or other financial analysis
- Performance standards / benchmarks
- Legal or regulatory additionality analysis (as defined in *Paragraph 3.1*)

Summarize and provide evidence of the policies and procedures referred to in the above list, including describing any/all additionality analyses and test types that are utilized under the programme:

**A.** Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:

As explained in Section 2.4 of the Program Manual (<http://www.climateactionreserve.org/how/program/program-manual/>), the Reserve employs standardized, rather than project-specific determinations of additionality.

Standardized additionality assessments have several advantages over project-specific additionality assessments. These include less reliance on subjective additionality tests, which are subject to “gaming” by project proponents; reduced costs of project development and verification, enabling smaller projects to participate in markets; increased transparency for stakeholders; increased certainty for project developers; reduced time for project development and verification; and increased consistency across projects as well as programs. The Reserve’s standardized approach to additionality has been adopted by sub-national governments in North America as the preferred method for compliance offset programs.

Every protocol contains a section with a well-defined Legal Requirement Test. A project passes the legal requirement test when there are no laws, statutes, regulations, court orders, environmental mitigation agreements, permitting conditions or other legally binding mandates requiring its implementation, or requiring the implementation of similar measures that would achieve equivalent levels of GHG emission reductions or removals.

In addition, every protocol contains other additionality analyses/tests which are tailored to the relevant sector and project activities. These could include some assessment of going above and beyond common practice, a technology-based threshold, an emission rate threshold, or some other approach. All five of the analyses listed in the ICAO criteria are explicitly considered during the protocol development process. In some cases, the results of these analyses can lead to a simple, sector-wide threshold, such as the installation of an anaerobic digester at a dairy which previously employed an open, anaerobic lagoon. In other cases, the result of the analyses could lead to more complex, multi-part thresholds, such as the grassland protocol, which has a financial additionality screen that is

applied regionally, and a soil suitability screen which is applied locally.

Relevant information provided in response to the September 2019 information request:

the Reserve does not have any protocols which rely purely on the Legal Requirement Test to establish additionality. There is always consideration of some form of a Performance Standard Test. This test will take different forms depending on the sector, the project activities, and the particular barriers that are identified as relevant. The methods detailed in the question above are explicitly considered during the process of developing a standardized offset project protocol. This approach results in enhanced objectivity in the assessment of additionality for individual projects, rather than relying on subjective, project-level determinations of additionality. This rationale is one of the key reasons the Reserve uses standardized baselines for its protocols rather than evaluating tailored arguments/justifications at the project level.

The Climate Action Reserve employs standardized approaches to the determination of additionality, rather than relying on costly and subjective project-specific approaches to determining additionality. For a concise, independent description of standardized additionality determinations, you may refer to this website: <http://co2offsetresearch.org/policy/AdditionalityBaselines.html>. The use of standardized approaches means that the determination of additionality will be tailored for each project protocol, depending on the specific conditions and barriers for the relevant industry sector and project activity. In some cases, the additionality tests will have an explicit financial component. For example, avoided grassland conversion projects must, among other requirements, demonstrate that the land is significantly more valuable as cropland (the baseline) than as grassland (the project). However, the specific financial threshold that must be exceeded is the same for all grassland projects. In addition, this determination is based on land values, rather than the financial resources of the landowner. See Section 3 of the Grassland Project Protocol v2.0 for additional details (available at <http://www.climateactionreserve.org/how/protocols/grassland/>).

The Reserve does not have any protocols which rely purely on the Legal Requirement Test to establish additionality. There is always consideration of some form of a Performance Standard Test. This test will take different forms depending on the sector, the project activities, and the particular barriers that are identified as relevant. The methods detailed in the question above are explicitly considered during the process of developing a standardized offset project protocol. This approach results in enhanced objectivity in the assessment of additionality for individual projects, rather than relying on subjective, project-level determinations of additionality. This rationale is one of the key reasons the Reserve uses standardized baselines for its protocols rather than evaluating tailored arguments/justifications at the project level.

**B.** Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none, “N/A”*):

N/A

If the Programme provides for the use of method(s) not listed above, describe the alternative procedures and how they ensure that activities are additional: (*Paragraph 3.1*)

**A.** Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:

N/A

**B.** Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none, “N/A”*):

N/A

If the programme designates certain activities as automatically additional (e.g., through a “positive list” of eligible project types), does the programme provide clear evidence on how the activity was determined to be additional? ( <i>Paragraph 3.1</i> )	<input checked="" type="checkbox"/> YES
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Summarize and provide evidence of the policies and procedures for determining the automatic additionality of activities, including a) the criteria used to determine additionality and b) their availability to the public:

**A.** Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:

The protocol development processes, including scoping meetings, workgroup meetings, and public comments, are all made public, with materials and meeting recordings posted online. Thus, there is a transparent record available of the decision-making process. Where feasible, the Reserve strives to employ approaches and methodologies which have already been tried and tested in the marketplace, meaning there will be additional evidence supporting the project benefits available through other programs. All development information is made available via the individual protocol webpages, accessible here: <http://www.climateactionreserve.org/how/protocols/>.

In addition, it is standard practice for the Reserve to include an informational appendix in each offset protocol, detailing the development of the Performance Standard Test(s) for that project type. This appendix is updated in subsequent versions whenever there is an update to the Performance Standard Test(s).

Relevant information provided in response to the September 2019 information request:

Additionality is a hallmark of everything we do at the Reserve. As noted earlier, it is built into the legal requirements test and the performance standard test embedded in every protocol and required to be verified for every project by an independent third party verifier. Furthermore, we believe that our use of standardized baselines incorporates critical elements of each of the methods itemized above.

In addition, a performance standard can be defined relative to some level of achievement of emission reductions. In certain cases it is possible to define a positive list of activities that will always result in achieving GHG emission reductions that would not otherwise occur, and thus meet the performance standard. For example, in the following cases, assuming other stated eligibility requirements of the protocol are met, installation of certain technologies are considered to meet the performance standard:

- Installation of a gas collection and control system at a landfill where methane control did not currently exist and would not otherwise be required.
- Installation of an impermeable cover and biogas collection system at a dairy or swine operation which previously managed its manure in an open, uncontrolled anaerobic lagoon.
- Installation of an enclosed vessel anaerobic digester and biogas collection system at a dairy or swine operation which previously managed its manure in an open, uncontrolled anaerobic lagoon.
- Installation of N<sub>2</sub>O emissions abatement equipment at a nitric acid production facility when it is not otherwise required.

Relevant information provided during the October 21, 2019 discussion:

Our protocols never employ simple “positive lists.” However, for a specific project activity, in a specific sector and jurisdiction, it may be possible to craft a performance standard in the form of a technology benchmark. For example, in the case of livestock manure, any dairy or swine farm in the US with an open, uncontrolled, anaerobic lagoon is eligible to receive carbon offsets if they install a biogas collection system (BCS), as defined in the protocol.

**B.** Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none, “N/A”*):

N/A

Explain how the procedures described under Question 4.1 provide a reasonable assurance that the mitigation would not have occurred in the absence of the offset programme: (*Paragraph 3.1*)

**A.** Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:

As explained in Section 2.4 of the Program Manual (<http://www.climateactionreserve.org/how/program/program-manual/>), the Reserve employs standardized, rather than project-specific determinations of additionality. Through a rigorous protocol development process, thorough project review by Reserve staff prior to project listing in the registry, as well as ex post verification of the project by an independent third-party prior to credit issuance, the Reserve and its stakeholders can be reasonably assured that all credits are additional to the level of emission reductions or removals which would have occurred in the absence of the program.

**B.** Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none, “N/A”*):

N/A

**Question 4.2 Are based on a realistic and credible baseline**

Are procedures in place to... ( <i>Paragraph 3.2</i> )	
a) issue emissions units against realistic, defensible, and conservative baseline estimations of emissions?	<input checked="" type="checkbox"/> YES
b) publicly disclose baselines and underlying assumptions?	<input checked="" type="checkbox"/> YES

Summarize and provide evidence of the policies and procedures referred to in a) and b), including how “*conservativeness*” of baselines and underlying assumptions is defined and ensured:

**A.** Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:

Baseline setting is explained in Section 2.6.2 of the Program Manual (<http://www.climateactionreserve.org/how/program/program-manual/>). The approach to setting the baseline differs for each project type, but is always directly linked to an analysis conducted when developing the Legal Requirement Test and the Performance Standard Test(s). The protocols, including the protocol development process, are public, and describe the process through which each project should define and measure its baseline. This includes Section 2 (project definition), Section 3 (eligibility), Section 4 (GHG assessment boundary), and Section 5 (quantification). All of these sections must be considered in tandem when defining and measuring the

baseline.

At the project level, each verification report includes details about the project baseline, including the basis for its determination, and how it will be monitored and reported during each reporting period. These verification reports are published in the project registry, accessible at: <https://thereserve2.apx.com/>.

Relevant information provided in response to the September 2019 information request, in regard to public disclosure of baselines and underlying assumptions:

Verification reports for all projects registered under the Climate Action Reserve’s voluntary project protocols are publicly available in the project registry. These are the projects that are being issued the credit type “CRT.” For projects in the Reserve’s offset registry that are being registered under the California ARB Compliance Offset Protocols (projects being issued the credit type “ROC”), the full verification reports are not made public by default. This is at the direction of the California Air Resources Board. These reports may be obtained via a public records request made directly to ARB, at which time they will work with the Offset Project Operator and Verification Body to ensure they do not release any confidential business information.

The Project Report for the offset registry is accessible here:

<https://thereserve2.apx.com/myModule/rpt/myrpt.asp?r=111>. Voluntary projects will show “NA” in the column with the heading “ARB ID.” For any such project, all documentation may be accessed by selecting the “View” hyperlink in the column with the heading “Documents.”

**B. Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none*, “N/A”):**

N/A

Are procedures in place to ensure that <i>methods of developing baselines</i> , including modelling, benchmarking or the use of historical data, use assumptions, methodologies, and values do not over-estimate mitigation from an activity? ( <i>Paragraph 3.2.2</i> )	<input checked="" type="checkbox"/> YES
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Summarize and provide evidence of the policies and procedures referred to above:

**A. Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:**

Baseline setting is explained in Section 2.6.2 of the Program Manual

(<http://www.climateactionreserve.org/how/program/program-manual/>). The approach to setting the baseline differs for each project type, but is always directly linked to an analysis conducted when developing the Legal Requirement Test and the Performance Standard Test(s). The protocols, including the protocol development process, are public, and describe the process through which each project should define and measure its baseline. Wherever there is uncertainty around the value of a parameter or the use of a model, the protocols err on the side of conservatism to avoid over-crediting.

The protocol development processes, including scoping meetings, workgroup meetings, and public comments, are all made public, with materials and meeting recordings posted online. Thus, there is a transparent record available of the decision-making process. In addition, the Reserve strives to employ approaches and methodologies which have already been tried and tested, where feasible, in the marketplace, meaning there will be additional evidence available through other programs which have employed the same approaches and/or methodologies. All development information is made available via the individual protocol webpages, accessible here:

<http://www.climateactionreserve.org/how/protocols/>.

**B.** Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none, “N/A”*):

N/A

Are procedures in place for activities to respond, as appropriate, to changing baseline conditions that were not expected at the time of registration? ( <i>Paragraph 3.2.3</i> )	<input checked="" type="checkbox"/> YES
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Summarize and provide evidence of the policies and procedures referred to above:

**A.** Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:

The adjustment of project baselines is handled on a protocol-by-protocol basis. For many protocols, a project baseline is considered valid for the entirety of the crediting period (the length of which varies based on the protocol, but is typically 10 years for protocols other than forest and grassland). Where protocols allow for a project to apply for a second crediting period, the projects must adhere to the requirements (including the Performance Standard Test) of the most recent version of the protocol. This means that if market conditions have changed over time, and the Reserve has responded by updating the protocol to reflect these changes, the projects must update their own baseline assumptions to reflect the new protocol.

Protocol revisions are explained in Section 4.3 of the Program Manual (<http://www.climateactionreserve.org/how/program/program-manual/>).

Relevant information provided in response to the September 2019 information request:

A protocol revision is not required for a project baseline to be reviewed when applying for a second crediting period. When a project applies for a second crediting period, the project must be assessed against the most recent version of the project protocol, which may be the same version of the protocol under which the project was already being credited or an updated protocol requiring the project to assess whether or not it can or will be able to meet any new conditions.

The Reserve is constantly assessing its protocols to ensure each protocol correctly specifies the latest market conditions, including baseline establishment. The decision whether or not to even allow a second crediting period partially depends on whether baseline conditions have changed. In addition, ongoing monitoring and verification requirements by an independent third party during any crediting period assures an updated, independent evaluation of whether or not baseline conditions have changed, including a Legal Requirement test and a Performance Standard test. The Reserve is confident its recognition of credits is conservative throughout a project’s lifetime.

**B.** Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none, “N/A”*):

N/A

Question 4.3 Are quantified, monitored, reported, and verified

Are procedures in place to ensure that...	
a) emissions units are based on accurate measurements and valid quantification methods/protocols? ( <i>Paragraph 3.3</i> )	<input checked="" type="checkbox"/> YES
b) validation occurs prior to or in tandem with verification? ( <i>Paragraph 3.3.2</i> )	<input checked="" type="checkbox"/> YES
c) the results of validation and verification are made publicly available? ( <i>Paragraph 3.3.2</i> )	<input checked="" type="checkbox"/> YES
d) monitoring, measuring, and reporting of both activities and the resulting mitigation is conducted at <i>specified intervals</i> throughout the duration of the crediting period? ( <i>Paragraph 3.3</i> )	<input checked="" type="checkbox"/> YES
e) mitigation is measured and verified by an accredited and independent third-party verification entity? ( <i>Paragraph 3.3</i> )	<input checked="" type="checkbox"/> YES
f) <i>ex-post</i> verification of mitigation is required in advance of issuance of emissions units? ( <i>Paragraph 3.3</i> )	<input checked="" type="checkbox"/> YES

Summarize and provide evidence of the policies and procedures referred to in a) through f):

**A.** Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:

- a) Sections 2.6 (Quantifying GHG Reductions) and 2.7 (Project Monitoring) of the Reserve’s Program Manual (<http://www.climateactionreserve.org/how/program/program-manual/>) provide a general description of how credits are quantified and monitored. Each project protocol will specify the specific quantification approach (generally Section 5). There may also be supplemental guidance and/or quantification tools provided by the Reserve, as applicable. Each project protocol will also specify requirements for project monitoring, quality assurance, and quality control procedures to ensure that adherence to the monitoring requirements results in credible, accurate performance data. All projects are verified by an accredited, independent, third-party verification body, and subsequently undergo an internal review by the Reserve, to ensure conformance with the protocol requirements prior to credit issuance.
- b) Section 3.4.1 of the Reserve’s Program Manual (<http://www.climateactionreserve.org/how/program/program-manual/>) describes how the Reserve does not require an explicit “validation” step in its program. Eligibility criteria and methodologies for emission reduction and removal calculations are built into the Reserve’s protocols. Because the Reserve’s eligibility criteria are standardized, determination of eligibility is usually straightforward and requires minimal interpretative judgment by verification bodies. The first time a project is verified, verification bodies are required to affirm the project’s eligibility according to the rules defined in the relevant project protocol. Project developers may choose to have a project verified without verifying credits for issuance in order to establish its eligibility for registration and provide more certainty to potential CRT buyers or sellers. However, when a project developer is seeking to register credits, a full verification must be conducted.
- c) All verification reports are published in the project registry, accessible at: <https://thereserve2.apx.com/>. Additionally, the original project submittal document, against which the Reserve staff assessed the project’s eligibility with the protocol, is published in the registry.
- d) Section 2.7 (Project Monitoring) of the Reserve’s Program Manual (<http://www.climateactionreserve.org/how/program/program-manual/>) provides a general description of how project activities are monitored. Each individual project protocol will specify requirements for project

monitoring, quality assurance, and quality control procedures to ensure that adherence to the monitoring requirements will result in credible, accurate performance data. All projects are verified by an accredited, independent, third-party verification body to ensure conformance with the protocol requirements prior to credit issuance. The protocols also contain clear guidance (generally in Section 7) around the method and frequency of reporting to the Reserve. All projects are required to report on project performance on at least an annual basis, although each protocol will specify the frequency with which these reports must be verified in order to issue credits.

Section 3.4 (Project Verification) of the Reserve’s Program Manual

(<http://www.climateactionreserve.org/how/program/program-manual/>) provides a general description of how project activities are verified. Credits are only issued following successful, ex post verification of the project’s performance for a given reporting period. The Reserve’s Verification Program Manual (<http://www.climateactionreserve.org/how/verification/verification-program-manual/>) provides extensive detail on the process and program for verification. Verification bodies are required to obtain accreditation through the ANSI National Accreditation Board or Entidad Mexicana de Acreditacion, A.C. (for verification bodies in Mexico). In addition, individual lead verifiers are required to complete training on individual Reserve protocols.

**B.** Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none, “N/A”*):

N/A

Are provisions in place... ( <i>Paragraph 3.3.3</i> )	
a) to manage and/or prevent conflicts of interest between accredited third-party(ies) performing the validation and/or verification procedures, and the programme and the activities it supports?	<input checked="" type="checkbox"/> YES
b) requiring accredited third-party(ies) to disclose whether they or any of their family members are dealing in, promoting, or otherwise have a fiduciary relationship with anyone promoting or dealing in, the offset credits being evaluated?	<input checked="" type="checkbox"/> YES
c) to address and isolate such conflicts, should they arise?	<input checked="" type="checkbox"/> YES

Summarize and provide evidence of the policies and procedures referred to in a) through c):

**A.** Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:

Verification body conflict of interest rules are clearly laid out in Section 3.6 of the Reserve’s Verification Program Manual (<http://www.climateactionreserve.org/how/verification/verification-program-manual/>). Prior to the initiation of verification activities, the verification body must complete and submit a Notification of Verification Activities and Request for Evaluation of Potential for Conflict of Interest (NOVA/COI) form (available for download from <http://www.climateactionreserve.org/how/verification/verification-documents/>).

Each verification body must provide information to its accreditation body about its organizational relationships, internal structures, and management systems for identifying potential conflicts of interest (organizational COI). Then, on a case-by-case basis, the Reserve will review any pre-existing relationships between a verification body and project developer and assess the potential for conflict of interest in light of the individuals involved. The

Reserve staff base the review on the verification body’s self-reported information submitted against the criteria laid out in the Verification Program Manual. The verification body must assess all potentially conflicting services it has provided to the project developer, specifying the nature, timing, location, financial value, etc. This information is evaluated and cross-checked against the Reserve’s internal records.

If the Reserve finds that there is low risk of COI, a determination is made in writing and sent to the verification body allowing verification services to proceed. After that point, the project developer and verification body may finalize negotiations of their contract and begin verification activities. Following completion of the verification, the verification body must monitor for COI through the next 12 months, as any new business relationship could increase the potential for COI (known as emerging COI).

If the Reserve finds that there is a medium or high risk of COI, it may request further information or the development of a mitigation plan before a final determination is made. For these cases, the Reserve will convene a COI Committee comprised of three or more staff members (with a minimum of one management-level staff member) in order to discuss the issue. The determination will be communicated to the verification body, the project developer, and any relevant body performing oversight. If the verification body disagrees with the determination, it may appeal (the appeals process is detailed in Section 6.4).

In the event that a verification body violates COI procedures, the Reserve, in consultation with the accreditation body and at its discretion, may disqualify an approved verification body from providing services under the Reserve.

The Verification Program Manual goes into great detail as to the nature of different potential sources of COI, and the potential for COI mitigation.

**B. Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none, “N/A”*):**

N/A

Are procedures in place requiring that... ( <i>Paragraph 3.3.4</i> )	
a) the renewal of any activity at the end of its crediting period includes a reevaluation of its baselines, and procedures and assumptions for quantifying, monitoring, and verifying mitigation, including the baseline scenario?	<input checked="" type="checkbox"/> YES
b) the same procedures apply to activities that wish to undergo verification but have not done so within the programme’s allowable number of years between verification events?	<input checked="" type="checkbox"/> YES

Summarize and provide evidence of the policies and procedures referred to in a) and b), including identifying the allowable number of years between verification events:

**A. Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:**

The adjustment of project baselines is handled on a protocol-by-protocol basis. Where protocols allow for a project to apply for a second crediting period, the projects must adhere to the requirements (including the Performance Standard Test) of the most recent version of the protocol. As market conditions change over time, the Reserve responds by updating the protocols to reflect these changes, and projects must update their own

baseline assumptions to reflect the updated protocol at the time they apply to renew their crediting period.

Protocol revisions are explained in Section 4.3 of the Program Manual.

The Reserve requires contiguous reporting, meaning there can be no gaps in reporting once the project's first reporting period has started. As described in Section 3.4.4 of the Reserve Offset Program Manual, if a Project Developer fails to submit a Zero Credit Reporting Form or complete a verification within the required timeline, the Project Developer will be given the choice to cancel the project or to start verification under the most current version of the protocol. If the project developer fails to notify a decision to the Reserve within 6 months, the project is canceled and can no longer be issued credits.

**B. Summary and accompanying evidence of any updates or changes to the programme elements described in "A" that were initiated following the Council's initial approval of programme eligibility (*if none, "N/A"*):**  
N/A

Are procedures in place to transparently identify units that are issued <i>ex ante</i> and thus ineligible for use in the CORSIA? ( <i>Paragraph 3.3.5</i> )	<input checked="" type="checkbox"/> YES
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Provide evidence of the policies and procedures referred to above:

**A. Information contained in the programme's original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:**

Offset credits are only issued by the Reserve following successful, *ex post* verification of project performance. There are some project types where an *ex post* action leads to a reduction in emissions which may have otherwise occurred over a period of time. For example, the composting of food waste avoids methane emissions which would have occurred at a landfill over several years. Similarly, the destruction of CFC-12 which could have been reclaimed and reused avoids refrigerant emissions which would have occurred over several years. However, in both cases, once the project activity has occurred, the emissions are avoided, both entirely and permanently. Thus, even these credits are considered to be *ex post*, if the project ceases operation following credit issuance, the previously-issued credits remain permanent and valid. The Reserve has released a memorandum detailing the rationale behind this, entitled "Immediate Crediting of Future Avoided Emissions" (September 7, 2010) ([http://www.climateactionreserve.org/wp-content/uploads/2009/04/Policy\\_Brief\\_on\\_Immediate\\_Crediting\\_of\\_Future\\_Avoided\\_Emissions.pdf](http://www.climateactionreserve.org/wp-content/uploads/2009/04/Policy_Brief_on_Immediate_Crediting_of_Future_Avoided_Emissions.pdf)).

The Climate Action Reserve, as an organization, also operates a separate program, known as Climate Forward, which specifically issues credits on an *ex ante* basis. This program is designed for use by companies to voluntarily invest in mitigation projects now to mitigate the impact of GHG emissions from future investments. These *ex ante* credits are known as Forecasted Mitigation Units (FMUs), and we are NOT proposing to qualify them for use in CORSIA. Nothing in our application should be construed as to apply to Climate Forward or FMUs.

**B. Summary and accompanying evidence of any updates or changes to the programme elements described in "A" that were initiated following the Council's initial approval of programme eligibility (*if none, "N/A"*):**  
N/A

#### Question 4.4 Have a clear and transparent chain of custody

SECTION III, Part 3.4—*Identification and tracking* includes questions related to this criterion. No additional information is requested here.

#### Question 4.5 Represent permanent emissions reductions

List all emissions sectors (if possible, activity types) supported by the Programme that present a potential risk of reversal of emissions reductions, avoidance, or carbon sequestration:

**A.** Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:

Sector: Forestry

- Activities:
  - Improved Forest Management (US and Mexico)
  - Avoided Conversion
  - Reforestation (US)
  - Reforestation/Afforestation (Mexico)
  - Agroforestry/Silvo-pastoral (Mexico)
  - Urban Forestry (US and Mexico)

Sector: Other land use

- Activities:
  - Avoided Grassland Conversion (US)

*Avoided Grassland Conversion (Canada) forthcoming*

**B.** Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none, “N/A”*):

Since ICAO first approved the Reserve for participation in CORSIA, we have added or updated the following protocols:

- Canada Grassland Protocol v1.0 adopted in October 2019;  
<https://www.climateactionreserve.org/how/protocols/canada-grassland/>
- Biochar Protocol v1.0, under development as of February 2022.
- Improved Forest Management Protocol v5.0, adopted in October 2019;  
<https://www.climateactionreserve.org/how/protocols/forest/>
- US Grassland Protocol v2,1 adopted in February 2020;  
<https://www.climateactionreserve.org/how/protocols/grassland/>
- Mexico Forestry Protocol v2.0 adopted in March 2020; v3.0 currently underway;  
<https://www.climateactionreserve.org/how/protocols/mexico-forest/>
- Soil Enrichment Protocol v1.0 adopted in September 2020;  
<https://www.climateactionreserve.org/how/protocols/soil-enrichment/>

What is the minimum scale of reversal for which the Programme provisions or measures require a response? (Quantify if possible)

**A.** Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:

The Reserve requires that any reversal be compensated for. The Reserve requires that Climate Reserve Tonnes (CRTs) reversed for avoidable reasons be replaced in proportion to any reversals, such that the total number of CRTs issued to a project does not exceed the total quantity of CO2 avoided or sequestered by the same project. For forest projects, reversals are defined in terms of tonnes of carbon, whereas for grassland projects they are defined in terms of acres disturbed. For unavoidable reversals (those due to acts of nature), project types with a risk of reversal include procedures to quantify that risk and then deposit a commensurate quantity of CRTs into a shared buffer pool. This insurance mechanism is publicly administered by the Reserve, and CRTs from the buffer pool are used in cases of unavoidable reversals.

**B.** Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none, “N/A”*):

N/A

For sectors/activity types identified in the first question in this section, are procedures and measures in place to require and support these activities to...	
a) undertake a risk assessment that accounts for, <i>inter alia</i> , any potential causes, relative scale, and relative likelihood of reversals? ( <i>Paragraph 3.5.2</i> )	<input checked="" type="checkbox"/> YES
b) monitor identified risks of reversals? ( <i>Paragraph 3.5.3</i> )	<input checked="" type="checkbox"/> YES
c) mitigate identified risks of reversals? ( <i>Paragraph 3.5.3</i> )	<input checked="" type="checkbox"/> YES
d) ensure full compensation for material reversals of mitigation issued as emissions units and used toward offsetting obligations under the CORSIA? ( <i>Paragraph 3.5.4</i> )	<input checked="" type="checkbox"/> YES

Summarize and provide evidence of the policies and procedures referred to in a) through d):

**A.** Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:

The Reserve requires that credited GHG reductions and removals be effectively “permanent”; for forest and avoided grassland conversion projects, this requirement is met by ensuring that the carbon associated with credited GHG reductions and removals remains stored for at least 100 years.

The Reserve ensures the permanence of GHG reductions and removals through three mechanisms:

1. The requirement for all project operators to monitor onsite carbon stocks, submit regular monitoring reports, and submit to regular third-party verification of those reports along with periodic verification site visits.
2. The requirement for all project operators to sign a legally-binding, long-term Project Implementation Agreement with the Reserve, which obligates project operators to replace CRTs to compensate for avoidable reversals of GHG reductions and removals for 100 years following credit issuance.

- a. Under the Reserve's Mexico Forest Protocol, the Project Implementation Agreement is optional and ton-year accounting principles are used to quantify the time-value of storing carbon as a relative proportion of the 100-year permanence (further details are provided below).
3. The maintenance of a Buffer Pool to provide insurance against reversals of GHG reductions and removals due to unavoidable causes (including natural disturbances).

Forest and avoided grassland conversion projects are required to identify and quantify the risk of reversals from different agents based on project-specific circumstances. For urban forest and Mexico forest projects, a conservative standardized risk rating is applied to all projects. The resulting risk rating determines the quantity of CRTs that the project must contribute to the Reserve's Buffer Pool to insure against unavoidable reversals. Depending upon the protocol, projects that implement specific activities that reduce the risk of a reversal, such as implementing vegetation treatments to enhance forest resilience, may receive a lower risk rating and thus have a lower contribution to the Buffer Pool.

Project owners must demonstrate, through annual reporting and periodic site visit verification, that stocks associated with credited GHG reductions and removals are maintained for a period of time considered to be permanent (i.e., 100 years). If the quantified GHG reductions and removals in a given year are negative, and CRTs were issued to the project in any previous year, the Reserve requires full compensation for the reversal.

Compensation is managed differently for avoidable versus unavoidable reversals. An unavoidable reversal is any reversal not due to the project operator's negligence, gross negligence, or willful intent, which includes natural disasters. For unavoidable reversal, the Reserve will retire a quantity of CRTs from the Buffer Pool equal in size of the reversal in CO<sub>2</sub>e metric tons. An avoidable reversal is any reversal that is due to the project operator's negligence, gross negligence, or willful intent. For avoidable reversals, compensation is enforced through the Project Implementation Agreement, and the project operator is required to replace a quantity of CRTs equal to the size of the reversal in CO<sub>2</sub>e metric tons.

Under the National Agrarian Law in Mexico, communal and ejidal landowners cannot enter into contracts for periods of time longer than 30 years. Consequently, under the Reserve's Mexico Forest Protocol, projects may choose to enter into the Project Implementation Agreement for any length of time, rather than require that all projects sign the contract for 100 years. However, project crediting is based on the proportion of carbon that is stored or secured through contract over a 100-year permanence period: one CRT is issued for each ton of CO<sub>2</sub>e removed from the atmosphere for a period of 100 years. Tons of CO<sub>2</sub>e sequestered and stored for shorter periods receive a fractional amount of credits according to the length of time the sequestered CO<sub>2</sub>e is stored and/or contractually secured. Specifically, for each additional ton of CO<sub>2</sub>e that is stored and verified, credits are issued proportional to the value of the atmospheric impact of sequestering and maintain each ton for the amount of time for which it is secured. The commitment and terms to secure the CO<sub>2</sub>e is established through the Project Implementation Agreement.

For more information see the Mexico Forest Protocol v1.5 Section 3.14 and 9, the Forest Project Protocol v4.0 Section 7, the Urban Forest Management Project Protocol V1.1 Section 6, and the Grasslands V2.0 Section 5.4.

Relevant information provided in response to the September 2019 information request:

Section 2.8 of the Program Manual lays out general requirements around permanence. Specific requirements for legal obligations, monitoring, and compensating reversals is contained within the individual project protocols.

100-year permanence is specifically described within the Section 3.5 of the Forest Project Protocol. Section 3.5

states “Project Operators must monitor and verify a Forest Project for a period of 100 years following the issuance of any CRT for GHG reductions or removals achieved by the project. For example, if CRTs are issued to a Forest Project in year 99 following its start date, monitoring and verification activities must be maintained until year 199.” Monitoring requirements, including frequency and monitoring and reporting content, are described in Section 8 of the Forest Project Protocol. The most recent version of the Forest Project Protocol is Version 4.0, publicly available here: <http://www.climateactionreserve.org/wp-content/uploads/2018/05/Forest-Project-Protocol-V4.0-package-05142018.pdf>. The Forest Project Protocol is currently undergoing revision to Version 5.0. Version 5.0 will be presented to the Reserve Board of Directors for approval on October 16th, but there are no substantive changes to Sections 3.5 or 8 relating to permanence or monitoring.

The Grassland Project Protocols maintain the same definition of permanence as 100 years of protection following CRT issuance. This is detailed in Sections 3.5, 5.4, and 6 of the US Grassland Project Protocol v2.0. The Canada Grassland Project Protocol v1.0 will be presented to the Reserve Board of Directors on October 16th, and addresses permanence in Sections 3.5, 5.4, and 6.

The relevant sections of the Urban Forest Management Project Protocol v1.0 are Sections 3.7, 6, and 7.

The relevant sections of the Urban Forest Tree Planting Project Protocol v2.0 are Sections 3.6, 6, and 7.

The relevant sections of the Mexico Forest Project Protocol v1.5 are Sections 3.14, 3.15, 9, and 10.

*Relevant information provided in response to the September 2019 information request, with regard to Urban Forest and Mexico forest projects standardized risk ratings:*

The Reserve’s buffer pool is intended to address possible reversals due to natural disturbances, although it can be used for any reversal, should it be necessary to do so. Assessing risk across forest projects is complicated, as natural disturbances are stochastic and highly variable in their effects. Therefore, the Reserve takes a conservative perspective with regards to the buffer pool, aiming to secure more credits than ever would likely be used to compensate for reversals. Importantly, the Reserve maintains the right to adjust the buffer pool at any time to adequately protect the integrity of issued credits.

The Mexico Forest Project Protocol (MFP) uses an averaged risk rating for all projects. The risk rating is designed to develop a buffer pool of credits to ensure programmatic wide integrity of the offsets that have been registered in the event of reversals associated with natural disturbances and ownership challenges related to land tenure disputes. Contributions to the risk buffer are standardized at 8% of all credits issued. The determination of the contribution to the buffer pool was largely based on decisions that were made for the domestic forest protocol. However, since over 80% of forest lands in Mexico are owned by communal groups, either as ejidos or comunidades, risks associated with finance and land transactions are negligible as the communal portion of these lands will remain within the community which owns them currently. Therefore, it was determined that the risk profile was less, on the average, for Mexican projects for risks beyond natural disturbances.

Additionally, the MFP registered its first credits in 2017, many years after the domestic Forest Project Protocol issued its first credits and began building the Reserve’s buffer pool account. Since all the Reserve’s projects that include a buffer pool risk mitigation strategy contribute, and can withdraw, from the same collective buffer pool account, the MFP has the advantage of a ready-established fund. Project reversal risk is distributed between projects throughout the United States and Mexico and consists of multiple project types.

The buffer pool contribution to the Urban Forest Project Protocol is 6% of issued credits. Urban forests were determined have a lower exposure to the natural disturbances than forest projects. As with the MFP, the buffer pool is common among all sequestration projects, which serves to distribute the risk geographically.

*Relevant information provided in response to the September 2019 information request, with regard to standardized risk ratings for other protocols:*

The Grassland Project Protocol does not employ an average risk rating. The reversal risk rating (which drives the contributions to the shared risk buffer pool) can range from 2% to 16.8% depending on the specific characteristics of the project. Several different risks are considered for each project:

- Default risk: 2% (applied to all projects)
- Risk of financial failure: 10%, except where the Project Implementation Agreement (the legal commitment to the permanence requirements) is recorded on the property (providing the program with stronger legal recourse to compensate for reversals), or where the Project Owner is an Accredited Land Trust (meaning they have proven long-term financial health).
- Site visit risk: 5% for any projects which have not had a site visit from an independent, third party verification body

The protocol details how these risk factors are combined into a single risk rating for each project. The risk is assessed again during every verification.

The Forest Project Protocol uses a variable risk rating. Unlike the Mexico forest project activity, the bulk of projects in the United States are on private lands that may have a deed of trust to finance the land. Landowners typically do not hold properties for the length of time of a 100-year plus forest carbon project and may be compelled to convert their forest lands to other uses over this timeframe to increase their overall financial returns. Additionally, for projects with a deed of trust, the position of the project contract with the Reserve can raise or lower the risk profile of the landowner.

The main variables in determining the risk rating is whether the landowner is at risk of converting their land to other uses or whether the obligation to compensate for intentional reversals would be honored in the event of a bankruptcy. Otherwise, project risks for natural disturbances are considered equal. Therefore, tribal lands and private landowners with a perpetual conservation easement that ensures the forest land will remain in forest cover are recognized at a lower risk than private lands without conservation easements. Similarly, projects that can position the project contract ahead of other legal obligations, such as a deed of trust, in the event of bankruptcy are able to get a lower risk rating. Projects on non-tribal lands without conservation easements contribute approximately 20% (~28% if the contract is in a subordinate position to other legal agreements) of their credits to the buffer pool. Projects on tribal lands or projects with conservation easements contribute approximately 14% of their credits to the buffer pool, if the contract is not in a subordinate position on the property title. All projects can reduce the contribution to the buffer pool if the project can demonstrate active management for resiliency, which is intended to harden the forest to negative consequences of wildfire, disease, or insect infestation.

*Relevant information provided in response to the September 2019 information request, with regard to reversal estimates for grassland projects not verified:*

Reversals will be verified. Quantification for grassland projects is based on specific areas of each stratum defined at the outset of the project (following protocol guidance). The stratification of the project area is verified during the initial project verification. Every quantification for the project is verified, with credits estimated based on the individual acres contained within each stratum. Thus, if a reversal is identified, the area reversed is measured (in acres), and the credits issued to those acres are considered to have been reversed. All of this will be verified at the subsequent verification of the project.

**B.** Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none, “N/A”*):

N/A

Are provisions in place that... ( <i>Paragraph 3.5.5</i> )	
a) confer liability on the activity proponent to monitor, mitigate, and respond to reversals in a manner mandated in the programme procedures?	<input checked="" type="checkbox"/> YES
b) require activity proponents, upon being made aware of a material reversal event, to notify the programme within a specified number of days?	<input checked="" type="checkbox"/> YES
c) confer responsibility to the programme to, upon such notification, ensure and confirm that such reversals are fully compensated in a manner mandated in the programme procedures?	<input checked="" type="checkbox"/> YES

Summarize and provide evidence of the policies and procedures referred to in a) through c), including indicating the *number of days within which activity proponents must notify the programme of a material reversal event*:

**A.** Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:

Projects are required to undergo annual monitoring and reporting for the life of the project.

If an avoidable reversal has been identified during annual monitoring, the project operator must give written notice to the Reserve within thirty days of identifying the reversal. Within a year of notifying the Reserve of an avoidable reversal, the project operator must provide the Reserve with a verified estimate of current onsite carbon stocks (forest and urban forest projects only – grassland projects do not require that the reversal be additionally verified). For grassland projects, the Project Owner will identify the specific acres that were affected and determine how many reversible CRTs have been issued in relation to those acres. Within four months of the Reserve’s approval of the verified estimate of onsite carbon stocks or area-based estimate of grassland reversal, the project operator must retire a quantity of CRTs equal to the size of the reversal in CO<sub>2</sub>e metric tons.

If an unavoidable reversal has been identified during annual monitoring, the project operator must give written notice to the Reserve within six months of its occurrence (forest projects), or within thirty days of its occurrence (grassland projects). The project operator must explain the nature of the unavoidable reversal and provide a verified estimate of onsite carbon stocks so that the reversal can be quantified (forest and urban forest projects only – grassland projects require that the reversal be described and quantified by the Project Owner). For forest projects, a verified estimate of the onsite carbon stocks must be submitted to the Reserve no later than 2 years following the occurrence. If the Reserve determines that there has been an unavoidable reversal, it will retire a quantity of CRTs from the Buffer Pool equal in size to the reversal in CO<sub>2</sub>e metric tons.

For more information see the Mexico Forest Protocol v1.5 Section 9.2, the Forest Project Protocol v4.0 Section 7.3, the Urban Forest Management Project Protocol V1.1 Section 6.2, and the Grassland Project Protocol V2.0 Section 5.4.1 and 5.4.2.

**B.** Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none, “N/A”*):

With the adoption of the Soil Enrichment Protocol, the approach for handling reversals is also applicable to this

protocol. If an avoidable reversal has been identified during annual monitoring, the project operator must give written notice to the Reserve within thirty days of identifying the reversal. Within a year of notifying the Reserve of an avoidable reversal, the project operator must provide the Reserve with a verified estimate of current Soil Organic Carbon. The project operator must retire a quantity of CRTs equal to the size of the reversal in CO2e metric tons.

If an unavoidable reversal has been identified within thirty days of its occurrence.

The project operator must explain the nature of the unavoidable reversal and provide a verified estimate of onsite carbon stocks, including a map of the specific area affected and an estimate of the size of the reversal. A verified estimate of the onsite carbon stocks must be submitted to the Reserve within a year of notifying the Reserve of the reversal. If the Reserve determines that there has been an unavoidable reversal, it will retire a quantity of CRTs from the Buffer Pool equal in size to the reversal in CO2e metric tons.

Does the programme have the capability to ensure that any emissions units which compensate for the material reversal of mitigation issued as emissions units and used toward offsetting obligations under the CORSIA are fully eligible for use under the CORSIA? ( <i>Paragraph 3.5.6</i> )	<input checked="" type="checkbox"/> YES
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Summarize and provide evidence of the policies and procedures referred to above:

**A.** Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:

The Reserve requires that reversals be compensated for in order to ensure the integrity of CRTs and to maintain their effectiveness at offsetting GHG emissions. When reversals take place, preference is given to replacing those CRTs with other CRTs of the same type (e.g., forest CRTs replaced with forest CRTs, or grassland CRTs replaced with grassland CRTs). Where not possible, CRTs from a related protocol are given second preference (e.g., CRTs from other land use projects). If this is still not possible, other CRTs will be used. The Reserve does not allow for emissions units issued outside of the Reserve program be used to compensate for a reversal. Any units from projects at risk of reversal which have been qualified for use in CORSIA are fully protected by the Reserve’s permanence policies for the full 100-year lifetime of the permanence period for each unit. CORSIA participants who use CRTs for compliance bear no risk of the environmental integrity of their specific units.

Relevant information provided in response to the September 2019 information request with regard to “pooled” buffer credits:

the Reserve registry system does have the capability to ensure CORSIA-eligible units in the buffer pool are used to address reversals from CORSIA-eligible activities. The buffer pool is not an automated retirement system. Retirements out of the buffer pool for addressing reversals would be a manual action by Reserve staff. Credits are currently pooled across project types within the buffer pool, but use of credits out of the shared buffer pool is limited to the same project type to address reversals.

The Reserve will incorporate language specifying that only CORSIA-eligible credits within the buffer pool will only be used to ensure against reversals from other CORSIA eligible projects into the Program Manual, as part of our currently ongoing public Program Manual revision process.

Relevant information provided in response to the September 2019 information request with regard to CORSIA

eligibility of emissions units used for compensation of reversals:

Whenever project reporting indicates that an unintentional reversal has occurred, the Reserve program requires a retirement out of the program buffer pool. Credits are retired from the buffer pool based on project type and program, as appropriate. This means that forest credits within the buffer pool are used to compensate for reversals from forest projects, and grassland credits within the buffer pool are used to compensate for reversals from grassland projects. CORSIA eligible credits will be supported by CORSIA eligible credits from the buffer pool.

These procedures are not currently described in program documentation, but will be incorporated in the current revision to the Program Manual, to be published at the end of October, 2019.

The Reserve registry system does have the capability to ensure CORSIA-eligible units in the buffer pool are used to address reversals from CORSIA-eligible activities. The buffer pool is not an automated retirement system. Retirements out of the buffer pool for addressing reversals would be a manual action by Reserve staff. Credits are currently pooled across project types within the buffer pool, but use of credits out of the shared buffer pool is limited to the same project type to address reversals.

The Reserve will incorporate language specifying that only CORSIA-eligible credits within the buffer pool will only be used to ensure against reversals from other CORSIA eligible projects into the Program Manual, as part of our currently ongoing public Program Manual revision process.

**B.** Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none, “N/A”*):  
N/A

Would the programme be willing and able, upon request, to demonstrate that its permanence provisions can fully compensate for the reversal of mitigation issued as emissions units and used under the CORSIA? ( <i>Paragraph 3.5.7</i> )	<input checked="" type="checkbox"/> YES
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**Question 4.6 Assess and mitigate against potential increase in emissions elsewhere**

List all emissions sectors (if possible, activity types) supported by the programme that present a potential risk of material emissions leakage:

**A.** Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:

Sector: Forestry

- Activities: Improved Forest Management (US and Mexico), Avoided Conversion, Reforestation (US), and Reforestation/Afforestation (Mexico)
- Risk of emissions leakage: shifting of harvest activities outside the project area; shifting of forestland conversion outside the project area

Sector: Other land use

- Activities: Avoided Grassland Conversion
- Risk of emissions leakage: shifting of grassland conversion outside the project area

Sector: Agricultural

- Activities: Nitrogen Management (synthetic nitrogen application rate reduction); Rice Cultivation (reduced methane emissions from approved rice cultivation techniques)

Risk: shifting of cultivation activities from the project area to other agricultural lands

**B. Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none, “N/A”*):**

Since ICAO first approved the Reserve for participation in CORSIA, we have added or updated the following protocols that could experience leakage:

- Canada Grassland Protocol v1.0 adopted in October 2019 and US Grassland Protocol v2,1 adopted in February 2020
  - Risk of emissions leakage: shifting of grassland conversion outside the project area
- Improved US Forest Management Protocol v5.0, adopted in October 2019 and Mexico Forestry Protocol v2.0 adopted in March 2020; v3.0 currently underway
  - Risk of emissions leakage: shifting of harvest activities outside the project area; shifting of forestland conversion outside the project area
- Soil Enrichment Protocol v1.0 adopted in September 2020
  - Risk of emissions leakage: market-shifting leakage associated with reductions in livestock management or crop yield on project lands

Are measures in place to assess and mitigate incidences of material leakage of emissions that may result from the implementation of an offset project or programme? ( <i>Paragraph 3.6</i> )	<input checked="" type="checkbox"/> YES
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Summarize and provide evidence of the policies and procedures referred to above:

**A. Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:**

The Reserve’s program includes policies that ensure all relevant project sources, sinks, and reservoirs (SSRs) are accounted for in a complete, conservative, and accurate manner. The Program Manual discusses leakage accounting and explains that Reserve protocols account for all effects of a GHG reduction project, both positive and negative. Where conceptually helpful, it is the Reserve’s policy to have protocols identify Sources, Sinks and Reservoirs (SSRs) that are associated with “secondary” or unintended effects of the project and may specifically name leakage as a possible emissions source. Where material risk of leakage is identified, quantification methods are provided.

For each of the sectors identified above, risk of leakage is addressed by the specific protocol for those offset projects. Relevant policies, by sector, are listed below:

- Forestry:
  - o The Forest Project Protocol identifies a potential risk of activity-shifting leakage, both in terms of land use and harvested wood product production, depending on the project activity. Improved Forest Management Projects involve a variety of activities that result in increased sequestration or avoided emissions on managed forestland through a range of more sustainable management practices. In some cases, projects may observe a change in harvested wood product production, depending on the project activity undertaken.

The protocol requires projects to monitor project wood product production and make comparisons to baseline wood product production. A conservative leakage risk factor is applied to the difference between project and baseline harvest levels in cases where baseline harvest levels are higher than project harvest levels, which results in a deduction to the project emission reductions/removals. This risk is assessed over the 100-year lifetime of the project. If cumulative wood products ultimately increase in the project, as compared to the baseline, then projects may recoup leakage related discount due to a previous assessment of leakage risk. Projects are never credited for net “positive” leakage as a result of increasing wood product production, compared to baseline harvesting, beyond what may be recouped. Certain elements of the protocol, such as the sustainable harvesting requirement, are applied across a landowner’s entire ownership, to reduce the risk of harvest activity leakage from the project area to other areas within the owner’s landholdings.

Avoided Conversion forest projects are subject to a risk of leakage if the type of land use conversion that would have occurred in the baseline shifts outside the project area to other lands, resulting in a zero net gain. The protocol applies a conservative risk factor based on the difference in actual onsite carbon stocks as compared to baseline onsite carbon stocks.

Reforestation projects may also be subject to the risk of leakage if cropland or grazing land shifts outside the project area as a result of the project activity of planting trees. The protocol includes a process to determine if the project area was viable as cropland or grazing land. If the other land use type was viable, then a leakage risk percentage is applied as a deduction, based on the difference in actual onsite carbon stocks as compared to baseline onsite carbon stocks.

- o The Mexico Forest Project Protocol similarly identifies a risk of leakage for the Improved Forest Management and Reforestation/Afforestation activities under that protocol. Risk of leakage is assessed for these project types in a manner comparable to the US Forest Project Protocol as described above (however, note that the project lifetime may be different – see Section 4.5 on Permanence). The Mexico Forest Project Protocol requires monitoring of forest landcover outside the Activity Area (i.e., where Improved Forest Management is taking place), but within the Project Area (i.e., the entire ownership), to ensure that there has not been leakage within those limits.
- Other land use:
  - o The Grassland Project Protocol identifies a potential risk of leakage related to shifting conversion activities. If the avoided grassland conversion project causes grassland conversion to shift elsewhere, the emissions would not actually be avoided. This risk depends on the economics of crop production. The protocol evaluated several studies related to leakage/”slippage” caused by

conservation of arable land. Based on this review, a conservative 20% discount factor is applied to baseline emissions to account for possible leakage emissions related to the project activities. This approach and quantitative estimate is in line with avoided grassland conversion protocols adopted by other programs.

- Agricultural:

- The Nitrogen Management Project Protocol identifies a potential risk of leakage related to shifted production, in that decreased project yields may result in increased cultivation outside the project area. Significant decreases in yield must be accounted for in order to assess this risk. The protocol includes an equation to estimate increased nitrogen emissions outside the project area, if project-area yields have decreased significantly.

The Rice Cultivation Project Protocol identifies a potential risk of leakage related to shifted production. Like the Nitrogen Management Project Protocol, any significant decreases in yield must be accounted for, and GHG emissions associated with the significantly decreased yield is assumed to shift outside the project area. The protocol includes equations to estimate these emissions.

**B. Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none, “N/A”*):**

Since ICAO first approved the Reserve for participation in CORSIA, we have added or updated the following protocols that could experience leakage:

- Canada Grassland Protocol v1.0 adopted in October 2019 and US Grassland Protocol v2.1 adopted in February 2020
  - Risk of emissions leakage: shifting of grassland conversion outside the project area
- Improved US Forest Management Protocol v5.0, adopted in October 2019 and Mexico Forestry Protocol v2.0 adopted in March 2020; v3.0 currently underway
  - Risk of emissions leakage: shifting of harvest activities outside the project area; shifting of forestland conversion outside the project area
- Soil Enrichment Protocol v1.0 adopted in September 2020
  - Risk of emissions leakage: market-shifting leakage associated with reductions in livestock management or crop yield on project lands

The answers that the Reserve provided above for our Grasslands and Forestry protocols still apply to the Canada Grassland Protocol v1.0 and Improved US Forest Management Protocol v5.0. For our Soil Enrichment Protocol v1.0, similar provisions are in place to address leakage. Specifically, the protocol seeks to provide additional protection from specific scenarios where leakage would be most likely, if it were to occur at all:

Scenario 1: Displacement of livestock outside of the project area

Scenario 2: Sustained decline in harvested yield for crops grown in the project area

These scenarios are only relevant for fields which employ livestock grazing and/or produce crop harvests. Project activities on other fields are categorically not expected to result in emissions leakage. While the mechanisms noted above are included to account for market-shifting leakage, the Reserve believes soil enrichment projects are unlikely to result in market-shifting leakage so long as the project area remains in commodity crop production. Moreover, research indicates that the project activities should not have long-term negative impacts on crop yields.

Thus, the risk of market-shifting leakage is low for soil enrichment projects. Nevertheless, the protocol does address how leakage is addressed for each of the two scenarios described above; more detail can be found in the protocol itself.

Are provisions in place requiring activities that pose a risk of leakage when implemented at the project level to be implemented at a national level, or on an interim basis on a subnational level, in order to mitigate the risk of leakage? ( <i>Paragraph 3.6.2</i> )	<input type="checkbox"/> YES
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Summarize and provide evidence of the policies and procedures referred to above:

**A.** Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:

Our program does not have the authority to mandate national or subnational level activities, nor do we believe such authority is needed given how our program operates. However, the Mexico Forest Project Protocol is designed to align with the developing jurisdictional framework of Mexico’s REDD+ Strategy (ENAREDD+). In addition, as explained in the previous question, all project-level leakage risks are managed (and in some cases, accounted for) at the protocol level. If a particular sector or project activity presented a risk of leakage that could not be mitigated at the project level, the Reserve would not move forward with the development and adoption of a project-level reporting and verification protocol.

Relevant information provided in response to the September 2019 information request:

Under the Mexico Forest Protocol, private, communal or non-federal government agencies implement activities to increase forest carbon stocks at the project-level. These activities are not currently linked to a jurisdictional or REDD+ program, though the protocol was designed to enable linking as Mexico develops their REDD+ national strategy. Landowners may implement project activities in distinct parcels of land within their property; however, landowners must monitor for leakage and prevent forest landcover loss throughout their entire ownership. In addition, projects must monitor for leakage potential beyond their ownership due to displacement of agricultural activities and changes in timber harvesting practices and receive corresponding deductions due to leakage risk.

Relevant information provided during the October 21, 2019 discussion:

The Mexico Forest Project Protocol (MFPP) only credits for carbon enhancements in the project area, not for any avoided loss. Thus, the accounting boundaries do not overlap with REDD+. Technically, deforestation is illegal in Mexico, but lack of enforcement leaves the opportunity for a jurisdiction-level REDD+ program to generate emission reductions.

To the best of our knowledge, none of our projects are currently seeking funding through both the project level accounting (MFPP) and a REDD+ program. Projects are required to disclose this in their submittal form and project report as part of the disclosure of legal restrictions and additionality discussion, at which time we would review their REDD+ reference level and crediting and make sure they are only receiving crediting for enhancements through the Reserve (and avoided emissions through REDD). The key distinction is over ownership of different carbon sources, sinks, and reservoirs. Per Mexico’s law (norm 173 & the National REDD+ Strategy) the avoided emissions are owned by the jurisdiction and the enhancements are owned by the forest owner, so the crediting pathways remain distinct.

**B.** Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none, “N/A”*):

N/A

Are procedures in place requiring and supporting activities to monitor identified leakage? ( <i>Paragraph 3.6.3</i> )	<input checked="" type="checkbox"/> YES
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Summarize and provide evidence of the policies and procedures referred to above:

**A.** Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:

For certain sectors and activities where a risk of leakage has been identified, leakage is accounted for using a conservative discount factor that does not vary based on project factors. This includes Avoided Conversion (both forest and grassland) and Reforestation (US) and Reforestation/Afforestation (MX) activities, where leakage risk is due to potential activity-shifting outside the project area. Since a conservative default value is used, monitoring is not required. Leakage is assumed to have occurred, to be conservative. For more information, see Forest Project Protocol v4.0 Equations 6.3 and 6.13, Forest Project Protocol v5.0 (draft for public comment) Equation 6.13, Mexico Forest Project Protocol v1.5 Equation 8.1, and Grassland Project Protocol v2.0 Equation 5.12.

Where the risk of leakage is variable, metrics are provided to monitor the risk of leakage. For Improved Forest Management activities (US and MX), this is monitored through quantifying harvested wood product production. Baseline and project harvest volume and harvested wood products are quantified and compared (both annually, and cumulatively over the life of the project), in order to assess whether there is a risk of leakage occurring. For more information, see Forest Project Protocol v4.0 Equation 6.10, Forest Project Protocol v5.0 (draft for public comment) Equations 6.1 and 6.10, Mexico Forest Project Protocol v1.5 Equation 8.1, and pending Mexico Forest Project Protocol update (under development), Equation 8.1.

Nitrogen Management and Rice Cultivation projects similarly monitor crop yields as a means of monitoring the risk of leakage. Where crop yields are shown to have decreased significantly (based on a comparison of normalized project yields vs. historical baseline average yields), there is a risk of leakage that must be accounted for. For more information, see Nitrogen Management Project Protocol v2.0 Equations 5.17 and 5.18, and Rice Cultivation Project Protocol v1.1 Equations 5.8 and 5.9.

Relevant information provided in response to the September 2019 information request:

The default value used for improved forest management in the Forest Project Protocol was developed based on the available scientific literature when the protocol was written (2009). The scientific literature with regards to leakage from improved forest management projects was sparse and remains sparse today. Much of the literature that addresses forest management leakage is related to the effects of a complete, ‘permanent’ cessation of timber harvest and leakage effects to nearby unrestricted harvest.

The Forest Project Protocol requires at least a 100-year commitment. In many cases, activities initiated as part of a project are expected to have the effect of increasing both in-forest carbon and carbon in harvested wood products over the project life. Many of the protocol accounting themes, including baseline, additionality, and leakage are developed with consideration of the long-term project obligation. Therefore, the determination of the default value evaluated the evidence from existing literature, but had to consider leakage under a different light, where ongoing

harvest will occur and likely increase over time as investments into forest management improve stocking and enhance biomass accumulation (sequestration).

The Reserve states that any provision of the protocol may be modified as the result of updated science. To date, the literature has not provided justification for this value to be modified.

The Grassland Project Protocols (both US and Canadian) apply a default value of 20% for baseline leakage. This value was determined through review of available literature studying “slippage” in the USDA’s Conservation Reserve Program, which is largely analogous to avoided grassland conversion. Results of those studies varied widely, so the Reserve chose the value at the extreme, conservative end of this range. Actual leakage is expected to be lower than 20%.

**B. Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none, “N/A”*):**

Since ICAO first approved the Reserve for participation in CORSIA, we have added or updated the following protocols that could experience leakage:

- Canada Grassland Protocol v1.0 adopted in October 2019 and US Grassland Protocol v2.1 adopted in February 2020
  - Risk of emissions leakage: shifting of grassland conversion outside the project area
- Improved US Forest Management Protocol v5.0, adopted in October 2019 and Mexico Forestry Protocol v2.0 adopted in March 2020; v3.0 currently underway
  - Risk of emissions leakage: shifting of harvest activities outside the project area; shifting of forestland conversion outside the project area
- Soil Enrichment Protocol v1.0 adopted in September 2020
  - Risk of emissions leakage: market-shifting leakage associated with reductions in livestock management or crop yield on project lands

The answers that the Reserve provided above for our Grasslands and Forestry protocols still apply to the Canada Grassland Protocol v1.0 and Improved US Forest Management Protocol v5.0. For our Soil Enrichment Protocol v1.0, similar provisions are in place to address leakage. Specifically, the protocol seeks to provide additional protection from specific scenarios where leakage would be most likely, if it were to occur at all:

Scenario 1: Displacement of livestock outside of the project area

Scenario 2: Sustained decline in harvested yield for crops grown in the project area

These scenarios are only relevant for fields which employ livestock grazing and/or produce crop harvests. Project activities on other fields are categorically not expected to result in emissions leakage. While the mechanisms noted above are included to account for market-shifting leakage, the Reserve believes soil enrichment projects are unlikely to result in market-shifting leakage so long as the project area remains in commodity crop production. Moreover, research indicates that the project activities should not have long-term negative impacts on crop yields. Thus, the risk of market-shifting leakage is low for soil enrichment projects. Nevertheless, the protocol does address how leakage is addressed for each of the two scenarios described above; more detail can be found in the protocol itself.

Are procedures in place requiring activities to deduct from their accounting emissions from any identified leakage that reduces the mitigation benefits of the activities? ( <i>Paragraph 3.6.4</i> )	<input checked="" type="checkbox"/> YES
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Summarize and provide evidence of the policies and procedures referred to above:

**A.** Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:

For sectors and activities where a risk of leakage has been identified, the relevant project protocols provide standardized equations to be used for accounting for emissions of leakage that may reduce the mitigation benefits of the activities. As described above, certain activities achieve this through the application of a conservative default deduction factor, based on the risk of activities resulting in leakage. These conservative default values are based on a literature review of the best available information at the time of protocol development and can be updated as new information becomes available.

Avoided Conversion (both forest and grassland), Reforestation (US) and Reforestation/Afforestation (US and MX) projects account for emissions from leakage in this way. The standardized equations relevant to these activities include Forest Project Protocol v4.0 Equations 6.3 and 6.13, Forest Project Protocol v5.0 (draft for public comment) Equation 6.13, Mexico Forest Project Protocol v1.5 Equation 8.1, and Grassland Project Protocol v2.0 Equation 5.12.

Other sectors and activities require monitoring of specific baseline and project factors. For Improved Forest Management (US and MX), baseline and project harvest volumes are quantified and compared against each other. No leakage is assumed if project harvesting exceeds baseline harvesting. A leakage risk is determined if baseline harvest exceeds project harvest. In such a case, the difference in harvested wood products is quantified (in tCO<sub>2e</sub>) and a conservative leakage risk factor is applied. Additionally, in the US Forest Protocol, a conservative market effects factor is applied to the difference in wood products to quantify the percentage of this carbon that is assumed to have “leaked” in the form of wood product production from land outside the project area. The standardized equations for quantifying this identified risk of leakage include: Forest Project Protocol v4.0 Equation 6.10, Forest Project Protocol v5.0 (draft for public comment) Equations 6.1 and 6.10, and Mexico Forest Project Protocol v1.5 Equation 8.1.

**B.** Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none, “N/A”*):

Since ICAO first approved the Reserve for participation in CORSIA, we have added or updated the following protocols that could experience leakage:

- Canada Grassland Protocol v1.0 adopted in October 2019 and US Grassland Protocol v2.1 adopted in February 2020
  - Risk of emissions leakage: shifting of grassland conversion outside the project area
- Improved US Forest Management Protocol v5.0, adopted in October 2019 and Mexico Forestry Protocol v2.0 adopted in March 2020; v3.0 currently underway
  - Risk of emissions leakage: shifting of harvest activities outside the project area; shifting of forestland conversion outside the project area
- Soil Enrichment Protocol v1.0 adopted in September 2020

- Risk of emissions leakage: market-shifting leakage associated with reductions in livestock management or crop yield on project lands

The answers that the Reserve provided above for our Grasslands and Forestry protocols still apply to the Canada Grassland Protocol v1.0 and Improved US Forest Management Protocol v5.0. For our Soil Enrichment Protocol v1.0, similar provisions are in place to address leakage. Specifically, the protocol seeks to provide additional protection from specific scenarios where leakage would be most likely, if it were to occur at all:

Scenario 1: Displacement of livestock outside of the project area

Scenario 2: Sustained decline in harvested yield for crops grown in the project area

These scenarios are only relevant for fields which employ livestock grazing and/or produce crop harvests. Project activities on other fields are categorically not expected to result in emissions leakage. While the mechanisms noted above are included to account for market-shifting leakage, the Reserve believes soil enrichment projects are unlikely to result in market-shifting leakage so long as the project area remains in commodity crop production. Moreover, research indicates that the project activities should not have long-term negative impacts on crop yields. Thus, the risk of market-shifting leakage is low for soil enrichment projects. Nevertheless, the protocol does address how leakage is addressed for each of the two scenarios described above; more detail can be found in the protocol itself.

**Question 4.7 Are only counted once towards a mitigation obligation**

Does the Programme have measures in place for the following...	
a) to ensure the transparent transfer of units between registries; and that only one unit is issued for one tonne of mitigation ( <i>Paragraphs 3.7.1 and 3.7.5</i> )	<input checked="" type="checkbox"/> YES
b) to ensure that one unit is issued or transferred to, or owned or cancelled by, only one entity at any given time? ( <i>Paragraphs 3.7.2 and 3.7.6</i> )	<input checked="" type="checkbox"/> YES
c) to discourage and prohibit the double-selling of units, which occurs when one or more entities sell the same unit more than once? ( <i>Paragraph 3.7.7</i> )	<input checked="" type="checkbox"/> YES
d) to require and demonstrate that host countries of emissions reduction activities agree to account for any offset units issued as a result of those activities such that double claiming does not occur between the airline and the host country of the emissions reduction activity? ( <i>Paragraph 3.7.3</i> )	<input type="checkbox"/> YES

Summarize and provide evidence of the policies and procedures referred to in a) through d):

**A.** Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:

Double counting is addressed via multiple layers of activity at different stages of our process:

- As detailed in our protocol screening process (<http://www.climateactionreserve.org/how/future-protocol-development/criteria/>), we avoid developing and adopting protocols that are likely to present a risk of double counting or ownership issues. One example would be our avoidance of offset crediting for renewable energy generation, which is well-accounted for by other incentive mechanisms in our target countries. We also avoid project types where it will be difficult to establish clear ownership of the GHG reductions and/or removals. We avoid capped sectors, or sectors potentially subject to a future cap.

- During protocol development we explore how the project definition, eligibility criteria, and monitoring requirements must be crafted to ensure clear ownership and avoid double counting.
- When a project is submitted, we search other offset registries to determine whether that project is listed elsewhere. Projects are allowed to transfer, for which we gather specific information regarding previously-issued vintages.
- Before a project is registered (this is our term for the approval of verification results and the issuance of credits), we once again search other offset registries to avoid double issuance.
- All credits are tracked with unique serial numbers. All issuances and retirements are immediately public, including the serial numbers.
- There are also going to be several changes implemented following the publication of the Guidelines for Avoiding Double Counting (<https://www.adc-wg.org/guidelines-version-1-0>), including a new section of our Program Manual. The first version of the guidelines has only just been published, so updates to our program documents and procedures are currently underway and expected to be completed by the end of 2019. The Reserve is an active member of the Avoiding Double Counting Working Group and provided extensive assistance with the development of the Guidelines.

To summarize in relation to the three questions above:

- a) Double issuance is avoided through rigorous protocol development, transparent registry operations, legal attestations, and credit serialization.
- b) Double use is avoided through credit serialization, public retirement reports, software controls around credit retirement and/or cancellation, and a strict Terms of Use agreement which must be signed by all registry account holders (<http://www.climateactionreserve.org/open-an-account/>).

Double selling is avoided through credit serialization, public retirement reports, software controls around credit retirement and/or cancellation, and a strict Terms of Use agreement which must be signed by all registry account holders.

Note that in our original application the question of obtaining host country approval and attestation for any credits was not yet valid since we were not approved for CORSIA. See next section for further information.

**B. Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none, “N/A”*):**

In our original submission we noted that our Program Manual would be updated at a later date. The most recent update to the Reserve Program Manual occurred in March 2021, [https://www.climateactionreserve.org/wp-content/uploads/2021/03/Reserve\\_Offset\\_Program\\_Manual\\_March\\_2021.pdf](https://www.climateactionreserve.org/wp-content/uploads/2021/03/Reserve_Offset_Program_Manual_March_2021.pdf). This version describes the procedures for indicating any credits that are used under CORSIA, which includes clear identification of any credits eligible for CORSIA and whether or not they have been used for CORSIA. The Reserve is prepared to include the procedures and related documents related to obtaining host country approval once a host country has established the mechanisms for doing so, including assigning this responsibility to the relevant national agency.

Does the Programme have procedures in place for the following: ( <i>Paragraph 3.7.8</i> )	
a) to obtain, or require activity proponents to obtain and provide to the programme, written attestation from the host country’s national focal point or focal point’s designee?	<input checked="" type="checkbox"/> YES
b) for the attestation(s) to specify, and describe any steps taken, to prevent mitigation associated with units used by operators under CORSIA from also being claimed toward a host country’s national mitigation target(s) / pledge(s)?	<input checked="" type="checkbox"/> YES
c) for Host country attestations to be obtained and made publicly available prior to the use of units from the host country in the CORSIA?	<input checked="" type="checkbox"/> YES

Summarize and provide evidence of the policies and procedures referred to in a) through c):

**A.** Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:

This question was not asked during our original submission.

**B.** Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none, “N/A”*):

The Reserve has implemented features in its registry to note which credits are eligible for CORSIA, whether or not they have been used for CORSIA, and have added the functionality to address host country attestations. However, the details regarding the how to address host country attestations has still not been fully defined as we are waiting on host countries to set up their national mechanisms for seeking host country attestations and the specific steps that will be required to authorize of any credits for CORSIA.

Does the Programme have procedures in place requiring... ( <i>Paragraph 3.7.9</i> )	
a) that activities take approach(es) described in (any or all of) these sub-paragraphs to prevent double-claiming?	<input checked="" type="checkbox"/> YES
<input checked="" type="checkbox"/> Emissions units are created where mitigation is not also counted toward national target(s) pledge(s) / mitigation contributions / mitigation commitments. ( <i>Paragraph 3.7.9.1</i> )	
<input type="checkbox"/> Mitigation from emissions units used by operators under the CORSIA is appropriately accounted for by the host country when claiming achievement of its target(s) / pledges(s) / mitigation contributions / mitigation commitments, in line with the relevant and applicable international provisions. ( <i>Paragraph 3.7.9.2</i> )	
<input checked="" type="checkbox"/> Programme procedures provide for the use of method(s) to avoid double-claiming which are not listed above ( <i>Paragraph 3.7.9.3</i> )	
b) that Host Country attestations confirm the use of approach(es) referred to in the list above?	<input checked="" type="checkbox"/> YES

Summarize and provide evidence of the policies and procedures referred to in a) and b):

**A.** Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:

Double claiming is prohibited by the Reserve’s Terms of Use (<http://www.climateactionreserve.org/open-an-account/>). Enforcement is supported through the serialization of offset credits and the transparent publication of information related to projects, credits, issuance, and retirement.

There are going to be several changes implemented following the publication of the Guidelines for Avoiding Double Counting (<https://www.adc-wg.org/guidelines-version-1-0>), including a new section of our Program Manual (<http://www.climateactionreserve.org/how/program/program-manual/>). The first version of the guidelines has only just been published, so updates to our program documents and procedures are currently underway and expected to be completed by the end of 2019. The Reserve is an active member of the Avoiding Double Counting Working Group and provided extensive assistance with the development of the Guidelines. Procedures will be put in place for staff to actively track host country authorizations and reported adjustments. Procedures will also be developed for reporting to ICAO in this context. We will create a new section of the Reserve’s website with links to clear guidance regarding the process for qualifying credits for CORSIA, including

guidance on the procurement of a Letter of Authorization from the project’s host country, as required (and where the host country has appropriate policies and mechanisms in place for such authorizations).

Relevant information provided in response to the September 2019 information request:  
 The Reserve will obtain and make available immediately any governments’ attestations/decisions as soon as we have them. However, the Reserve, as with all other voluntary carbon programs worldwide, cannot dictate terms to sovereign nations regarding their actions or the timing thereof. The rules and procedures any government will follow are still being negotiated internationally, e.g., the rulebook for Article 6 and the exchange of ITMOs is a critical item for negotiation at COP25. Furthermore, each government will need to establish its national accounting rules once the Article 6 decisions have been made. For our current primary geographic focus, it is our understanding that the US State Department is still to determine appropriate rules/guidance for interacting with national level reporting.

Nevertheless, the Reserve will submit LoA requests as soon as they are requested by the relevant Reserve Account Holders. We have no control over the amount of time a country representative will take to approve or reject the LoA request. Responses from host governments will be made public as soon as they are received. We will work directly with the host countries for our projects (the United States, Canada, and Mexico), as well as ICAO and other carbon programs, to ensure that the format and process for our requests is appropriate and complete.

The process for obtaining and publishing the LoA, as well as transparency on the whole process, will be developed and added to the Program Manual following the Reserve’s approval by ICAO, as well as publication of the Paris Rulebook for trading of ITMOs under the Paris Agreement.

**B. Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none, “N/A”*):**

In our original submission we noted that our Program Manual would be updated at a later date. The most recent update to the Reserve Program Manual occurred in March 2021, <https://www.climateactionreserve.org/wp-content/uploads/2021/03/Reserve-Offset-Program-Manual-March-2021.pdf>. This version describes the procedures for indicating any credits that are used under CORSIA, which includes clear identification of any credits eligible for CORSIA and whether or not they have been used for CORSIA. The Reserve is prepared to include the procedures and related documents related to obtaining host country approval once a host country has established the mechanisms for doing so, including assigning this responsibility to the relevant national agency.

Does the Programme... ( <i>Paragraph 3.7.10</i> )	
a) make publicly available any national government decisions related to accounting for units used in ICAO, including the contents of host country attestations described in paragraph 3.7.8?	<input checked="" type="checkbox"/> YES
b) update information pertaining to host country attestation as often as necessary to avoid double-claiming?	<input checked="" type="checkbox"/> YES

Summarize and provide evidence of the policies and procedures referred to in a) and b):

**A. Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:**

There are going to be several changes implemented following the publication of the Guidelines for Avoiding Double Counting (<https://www.adc-wg.org/guidelines-version-1-0>), including a new section of our Program Manual (<http://www.climateactionreserve.org/how/program/program-manual/>). The first version of the guidelines has only just been published, so updates to our program documents and procedures are currently underway and expected to be completed by the end of 2019. The Reserve is an active member of the Avoiding Double Counting Working Group and provided extensive assistance with the development of the Guidelines. Procedures will be put in place for staff to actively track host country authorizations and reported adjustments. Procedures will also be developed for reporting to ICAO in this context.

We will create a new section of the Reserve’s website with links to clear guidance regarding the process for qualifying credits for CORSIA, including procurement of a Letter of Authorization from the project’s host country. In addition, the registry software will be updated to clearly identify credits which have been qualified for use in CORSIA, as well as the status of any Letter of Authorization, and access to relevant documents.

Relevant information provided in response to the September 2019 information request (In response to the question “5.2. The Climate Action Reserve refers to “a Letter of Authorization from the project’s host country, as required (and where the host country has appropriate policies and mechanisms in place for such authorizations)”. What are “appropriate policies and mechanisms” in this case?):

In this context, “appropriate policies and mechanisms” means that the host country has the following:

- An official point of contact (agency, individual official, etc.) with the ability to consider and issue a Letter of Authorization (LoA).
- A mechanism in place for the accounting and reporting of its national GHG inventory to the UNFCCC.
- Confirmation from the relevant authority that applications for LoAs will be considered (i.e., policies in place to support the issuance of a LoA).

In other words, the Reserve may only obtain a LoA from a host country that has both the will and means to issue such a letter. These policies will need to be aligned as necessary once the rules for ITMOs are established under the Paris Agreement (hopefully, this will be a successful outcome of the Article 6 negotiations at COP 25).

**B. Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none*, “N/A”):**

In our original submission we noted that our Program Manual would be updated at a later date. The most recent update to the Reserve Program Manual occurred in March 2021, [https://www.climateactionreserve.org/wp-content/uploads/2021/03/Reserve\\_Offset\\_Program\\_Manual\\_March\\_2021.pdf](https://www.climateactionreserve.org/wp-content/uploads/2021/03/Reserve_Offset_Program_Manual_March_2021.pdf). This version describes the procedures for indicating any credits that are used under CORSIA, which includes clear identification of any credits eligible for CORSIA and whether or not they have been used for CORSIA. The Reserve is prepared to include the procedures and related documents related to obtaining host country approval once a host country has established the mechanisms for doing so, including assigning this responsibility to the relevant national agency.

Does the Programme have procedures in place to compare countries’ accounting for emissions units in national emissions reports against the volumes of eligible units issued by the programme and used under the CORSIA which the host country’s national reporting focal point or designee otherwise attested to its intention to not double claim? ( <i>Paragraph 3.7.11</i> )	<input checked="" type="checkbox"/> YES
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Summarize and provide evidence of the policies and procedures referred to above:

**A.** Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:

There are going to be several changes implemented following the publication of the Guidelines for Avoiding Double Counting (<https://www.adc-wg.org/guidelines-version-1-0>), including a new section of our Program Manual (<http://www.climateactionreserve.org/how/program/program-manual/>). The first version of the guidelines has only just been published, so updates to our program documents and procedures are currently underway and expected to be completed by the end of 2019. The Reserve is an active member of the Avoiding Double Counting Working Group and provided extensive assistance with the development of the Guidelines. Procedures will be put in place for staff to actively track host country authorizations and reported adjustments. Procedures will also be developed for reporting to ICAO in this context.

We will create a new section of the Reserve’s website with links to clear guidance regarding the process for qualifying credits for CORSIA, including procurement of a Letter of Authorization from the project’s host country. In addition, the registry software will be updated to clearly identify credits which have been qualified for use in CORSIA, as well as the status of any Letter of Authorization, and access to relevant documents.

**B.** Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none, “N/A”*):

In our original submission we noted that our Program Manual would be updated at a later date. The most recent update to the Reserve Program Manual occurred in March 2021, <https://www.climateactionreserve.org/wp-content/uploads/2021/03/Reserve-Offset-Program-Manual-March-2021.pdf>. This version describes the procedures for indicating any credits that are used under CORSIA, which includes clear identification of any credits eligible for CORSIA and whether or not they have been used for CORSIA. The Reserve is prepared to include the procedures and related documents related to obtaining host country approval once a host country has established the mechanisms for doing so, including assigning this responsibility to the relevant national agency.

Does the Programme have procedures in place for the programme, or proponents of the activities it supports, to compensate for, replace, or otherwise reconcile double claimed mitigation associated with units used under the CORSIA which the host country’s national accounting focal point or designee otherwise attested to its intention to not double claim? ( <i>Paragraph 3.7.13</i> )	<input checked="" type="checkbox"/> YES
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Summarize and provide evidence of the policies and procedures referred to above:

**A.** Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:

There are going to be several changes implemented following the publication of the Guidelines for Avoiding Double Counting (<https://www.adc-wg.org/guidelines-version-1-0>), including a new section of our Program Manual (<http://www.climateactionreserve.org/how/program/program-manual/>). The first version of the guidelines has only just been published, so updates to our program documents and procedures are currently underway and expected to be completed by the end of 2019. The Reserve is an active member of the Avoiding Double Counting Working Group and provided extensive assistance with the development of the Guidelines. Procedures will be put in place for staff to actively track host country authorizations and reported adjustments. Procedures will also be developed for reporting to ICAO in this context.

We will create a new section of the Reserve’s website with links to clear guidance regarding the process for qualifying credits for CORSIA, including procurement of a Letter of Authorization from the project’s host country. In addition, the registry software will be updated to clearly identify credits which have been qualified for use in CORSIA, as well as the status of any Letter of Authorization, and access to relevant documents.

Relevant information provided in response to the September 2019 information request with regard to addressing accounting reversals:

The Reserve, as with all other voluntary carbon programs worldwide, cannot enforce its programs against sovereign nations. The “accounting reversals” described by this question would be the result of a host country issuing a LoA in bad faith and reneging on its commitments therein. Through contact with individual host nations the Reserve will endeavor to obtain all possible assurances that all LoAs will be issued in good faith and that host nations will follow through with any commitments to record corresponding adjustments in reporting to UNFCCC under the Paris Agreement. In addition, since this situation reflects a fundamental violation of the commitments that governments are making under the UNFCCC, we will notify the appropriate authorities at ICAO that a violation appears to have occurred and work collaboratively to address such situations.

**B. Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none, “N/A”*):**  
 In our original submission we noted that our Program Manual would be updated at a later date. The most recent update to the Reserve Program Manual occurred in March 2021, [https://www.climateactionreserve.org/wp-content/uploads/2021/03/Reserve\\_Offset\\_Program\\_Manual\\_March\\_2021.pdf](https://www.climateactionreserve.org/wp-content/uploads/2021/03/Reserve_Offset_Program_Manual_March_2021.pdf). This version describes the procedures for indicating any credits that are used under CORSIA, which includes clear identification of any credits eligible for CORSIA and whether or not they have been used for CORSIA. The Reserve is prepared to include the procedures and related documents related to obtaining host country approval once a host country has established the mechanisms for doing so, including assigning this responsibility to the relevant national agency.

Would the Programme be willing and able, upon request, to report to ICAO’s relevant bodies, as requested, performance information related to, <i>inter alia</i> , any material instances of and programme responses to country-level double claiming; the nature of, and any changes to, the the number, scale, and/or scope of host country attestations; any relevant changes to related programme measures? ( <i>Paragraph 3.7.12</i> )	<input checked="" type="checkbox"/> YES
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**Question 4.8 Do no net harm**

Are procedures in place to ensure that offset projects do not violate local, state/provincial, national or international regulations or obligations? ( <i>Paragraph 3.8</i> )	<input checked="" type="checkbox"/> YES
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Summarize and provide evidence of the policies and procedures referred to above:

**A. Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:**  
 Section 2.4.6 of the Reserve’s Program Manual (downloadable here:

<http://www.climateactionreserve.org/how/program/program-manual/>) enshrines guidance to ensure all Reserve offset protocols and projects demonstrate that GHG projects do no net harm. The scope of this requirement includes environmental issues such as air and water quality, endangered species, natural resource protection, and environmental justice. A number of mechanisms are employed to ensure these requirements are met. For every offset project, project developers must sign an Attestation of Regulatory Compliance, attesting that their projects have met these requirements. Each time offsets are sought, the project developer must also provide evidence to the verifier reviewing their project that the project continues to meet these requirements.

**B. Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none, “N/A”*):**

N/A

Describe, and provide evidence that demonstrates, how the programme complies with social and environmental safeguards: (*Paragraph 3.8*)

**A. Information contained in the programme’s original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:**

This is typically done in two ways: First, project developers provide copies of all relevant permits, approvals etc., for their project; second, project developers disclose any and all instances of infractions against any legal requirements. For the latter, verifiers then assess whether these regulatory violations are related to the project and, if so, whether they are material. Further detailed guidance is provided in the Program Manual regarding these two elements. Projects that are found to have failed these requirements are not issued offset credits for the period of time that the project was out of regulatory compliance. In addition to these methods, verifiers are also required to proactively seek out information to determine whether regulatory violations have occurred. There are three methods verifiers typically employ in this regard: First, verifiers look up information published in central repositories such as the U.S. E.P.A.’s Enforcement and Compliance History Online (ECHO) database (accessible here: <https://echo.epa.gov/>). Verifiers can search for the project within the ECHO database (using a variety of search terms including address, facility name etc.) and then download printouts of results, to submit those to the Reserve. This database is not always complete or up to date, but it often provides very useful indications of regulatory compliance or otherwise. Second, verifiers engage with relevant regulators that have jurisdiction over the project to ascertain whether any regulatory violations have occurred. Verifiers must proactively contact relevant regulators to confirm whether regulatory compliance issues have arisen during the timeframes in question. Third, verifiers make enquiries with project staff, either over the phone or during site visits, as to whether there have been any regulatory issues at the project. This third layer is often also quite useful and can be the source of valuable information that sometimes does not emerge from all other checks.

Lastly, the general public may contact us at any time with questions or concerns around a specific project, program participant, or protocol. We maintain a detailed list of contacts, as well as generic email aliases for specific purposes, to ensure that inquiries may be appropriately targeted and responded to in a timely manner. This contact information may be found at: <http://www.climateactionreserve.org/contact-us/>.

**B. Summary and accompanying evidence of any updates or changes to the programme elements described in “A” that were initiated following the Council’s initial approval of programme eligibility (*if none, “N/A”*):**

N/A

Describe, and provide evidence of the programme's public disclosure of, the institutions, processes, and procedures that are used to implement, monitor, and enforce safeguards to identify, assess and manage environmental and social risks: (*Paragraph 3.8*)

**A.** Information contained in the programme's original application, including information submitted in response to follow-up discussions and written questions pertaining to this topic:

Section 2.4.6 of the Reserve's Program Manual (downloadable here:

<http://www.climateactionreserve.org/how/program/program-manual/>) enshrines guidance to ensure all Reserve offset protocols and projects demonstrate that GHG projects do no net harm. Each time projects are issued offsets, a Verification Report will be made available publicly, which includes a summary of all of the efforts undertaken by the verification team to assess whether these do no harm principles have been met. The Verification Report also contains information on all evidence reviewed by the verification team, and a discussion of all relevant issues raised. Finally, the Verification Report contains confirmation that the project has met these do not harm principles.

**B.** Summary and accompanying evidence of any updates or changes to the programme elements described in "A" that were initiated following the Council's initial approval of programme eligibility (*if none, "N/A"*):

N/A

## **PART 5: Programme comments**

Are there any additional comments the programme wishes to make to support the information provided in this form? Ensuring the environmental integrity of any credits issued from any program needs to be the primary goal of any carbon registry. At the Climate Action Reserve we believe we have an unparalleled process for ensuring the integrity of all credits issued. This process was developed in concert with the State of California to ensure that any offset credits used in its compliance program represent the highest quality credits available. The Reserve applies these same principles and processes to its voluntary offset credit programs, as detailed in our answers to this application. We have also had the benefit of learning from earlier programs, including the CDM and JI provisions of the Kyoto Protocol, to avoid the pitfalls often associated with project-level baseline establishment. Our reliance on standardized baselines is a very transparent, conservative approach to credit recognition and the Reserve has built safeguards into our programs and protocols to ensure the highest level of environmental integrity. Nevertheless, the Reserve also understands that ICAO is attempting to develop a unique program with CORSIA that may require additional actions and guidance that have not yet been fully contemplated. The Climate Action Reserve is ready to support CORSIA today, but we are also very receptive to adapting our programs and protocols to meet CORSIA's evolving needs. We welcome the opportunity to address any questions ICAO may have and to collaborate with you in any way we can. The world is out of time to address climate change and let's move aggressively to enhance climate ambition.

**SECTION IV: SIGNATURE**

*I certify* that I am the administrator or authorized representative (“Programme Representative”) of the emissions unit programme (“Programme”) represented in a) this form, b) evidence accompanying this form, and c) any subsequent oral and/or written correspondence (a-c: “Programme Submission”) between the Programme and ICAO; and that I am duly authorized to represent the Programme in all matters related to ICAO’s analysis of this application form; and that ICAO will be promptly informed of any changes to the contact person(s) or contact information listed in this form.

*As the Programme Representative, I certify* that all information in this form is true, accurate, and complete to the best of my knowledge.

*As the Programme Representative, I acknowledge* that:

the Programme’s participation in the re-assessment does not guarantee, equate to, or prejudge future decisions by Council regarding CORSIA-eligible emissions units; and

the ICAO is not responsible for and shall not be liable for any losses, damages, liabilities, or expenses that the Programme may incur arising from or associated with its voluntary participation in the re-assessment; and

as a condition of participating in the re-assessment, the Programme will not at any point publicly disseminate, communicate, or otherwise disclose the nature, content, or status of communications between the Programme and ICAO, and of the re-assessment process generally, unless the Programme has received prior notice from the ICAO Secretariat that such information has been and/or can be publicly disclosed.

*Signed:*

\_\_\_\_\_ Craig Ebert \_\_\_\_\_  
Full name of Programme Representative (*Print*)

\_\_\_\_\_ March 9, 2022 \_\_\_\_\_  
Date signed (*Print*)



\_\_\_\_\_  
Programme Representative (*Signature*)

(This signature page may be printed, signed, scanned and submitted as a separate file attachment)

**Attachment 1**  
**Certificate of Insurance Coverage**

Attached separately to this application form and included in the email transmittal of this application form to ICAO.