

# CTUIR Level IV Air Emissions Inventory

## Quality Assurance Project Plan (QAPP)

Prepared by:

Confederated Tribes of the Umatilla Indian Reservation

Department of Natural Resources, Energy and Environmental Sciences Program

46411 Ti'mine Way, Pendleton, OR 97801

AND

Alta Science and Engineering Inc.

220 East Fifth Street, Suite 325, Moscow, Idaho 83843

December 11, 2025

Environmental Protection Agency: A - 02J31401 – 2

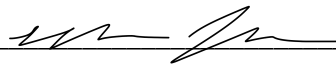
# 1. Project Management- Organization and Responsibilities

## 1.1. Title and Approval Page

### CTUIR Level IV Air Emissions Inventory Quality Assurance Project Plan (QAPP)

Lead Organization: Confederated Tribes of the Umatilla Indian Reservation:

Mason Murphy, Program Manager


Signature:  Date: 12/15/2025

Matthew Campbell, Air Quality Technical Lead- Project Manager, Quality Manager

Signature:  Date: 12/15/2025

Contracting Organization: Alta Science and Engineering, Inc.

Jeremy Johnson, Toxicologist- Project Manager

Signature:  Date: \_\_\_\_\_

Federal Regulatory Agency: United States Environmental Protection Agency – Region 10

Vanessa Marshall, Project Officer

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Cindy Fields, Regional Quality Assurance Manager

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

\*NOTE: Section numbers correspond to worksheets listed under the Uniform Federal Policy for Quality Assurance Project Plans (UFP-QAPP). Sections of the UFP-QAPP that did not apply to the current plan are not listed. Therefore, section numbers are not sequential.

## Table of Contents

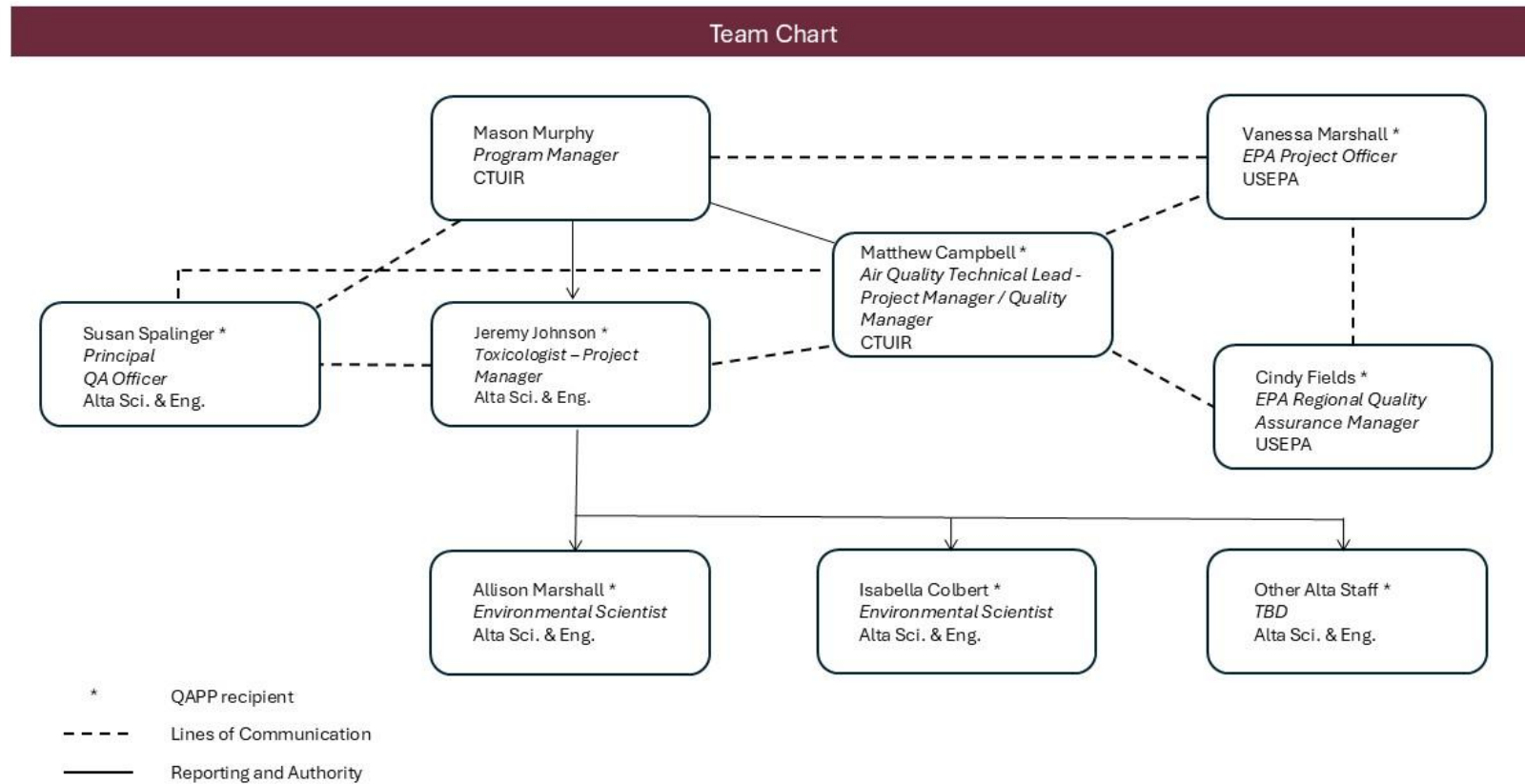
1.	Project Management- Organization and Responsibilities .....	2
1.1.	Title and Approval Page.....	2
3.	Project Organization and QAPP Distribution.....	5
4.	Personnel Qualifications and Sign-off Sheet .....	6
6.	Communication Pathways .....	8
10.	Problem Definition.....	10
10.1.	Introduction.....	10
10.2.	Receptors and Exposure Pathways .....	10
10.3.	Project Decision Conditions.....	10
10.4.	Pollutant Scope .....	11
11.	Project/Data Quality Objectives.....	12
13.	Secondary Data Uses and Limitations .....	16
14.	Project Tasks & Schedule .....	18
29.	Project Documents and Records .....	19
34.	Data Review .....	20
34.1	Data Verification and Validation .....	20
34.2	Data Evaluation.....	22
	Works Cited.....	23

## Acronyms and Abbreviations

Alta	Alta Science & Engineering Inc
CAA	Clean Air Act
CAP	Criteria Air Pollutant
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CDMS	Central Data Management System
CSV	Comma Separated Values
CTUIR	Confederated Tribes of the Umatilla Indian Reservation
DQI	Data Quality Indicator
DQO	Data Quality Objectives
Ecology	Washington State Department of Ecology
EPA	Environmental Protection Agency
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
GHG	Greenhouse Gas
HAP	Hazardous Air Pollutant
NAAQS	National Ambient Air Quality Standard
NEI	National Emissions Inventory
NEPA	National Environmental Policy Act
NRDA	National Resources Damage Assessment
ODEQ	Oregon Department of Environmental Quality
QA	Quality Assurance
QA/QC	Quality Assurance/Quality Control
QAPP	Quality Assurance Project Plan
RCRA	Resource Conservation and Recovery Act
SCC	Source Classification Code
SIP	State Implementation Plan
TSCA	Toxic Substances Control Act
UST/LUST	underground storage tank/leaking underground storage tank

### 3. Project Organization and QAPP Distribution




The organization chart below reflects information from UFP-QAPP worksheets #3 and #5 (EPA, 2005).



## 4. Personnel Qualifications and Sign-off Sheet

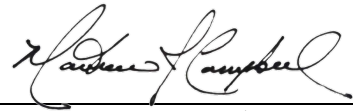
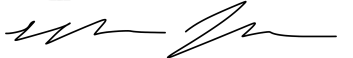
The table below reflects information from UFP-QAPP worksheets #4, 7, and 8 (EPA, 2005).

Organization: Alta Science and Engineering, Inc. (Alta)

Name	Project Title/Role	Education/Experience	Specialized Training/Certifications	Signature/Date*
Jeremy Johnson	Project Manager/Senior Environmental Scientist/Toxicologist	MS - Toxicology BS – Environmental Science	Human Health Risk Assessment; CERCLA, Brownfields, UST/LUST, RCRA Investigation/Cleanups; Air Toxics; Radiological Emergency Response, and NEPA, TSCA, and FIFRA compliance.	
Susan Spalinger	Vice President/Principal Environmental Scientist/QA Officer	MS - Environmental Science BS – Environmental Science	Remedial investigations, risk assessment, remedial actions, NRDA support, and evaluating remedy effectiveness	
Allison Marshall	Environmental Scientist	MS – Water Resources Engineering BS - Environmental Science	Brownfields, Site assessment, AirKnowledge EMIS101-SI: Fundamentals of Emissions Inventories, Data validation	 12/11/2025  Signed on behalf of Allison Marshall

Isabella Colbert	Environmental Scientist	BS – Environmental Science	Site Assessment; Data Validation; AirKnowledge EMIS101-SI: Fundamentals of Emissions Inventories	<i>Isabella Colbert</i>  12/11/25
------------------	-------------------------	----------------------------	---	---

Organization: Confederated Tribes of the Umatilla Indian Reservation (CTUIR)

Name	Project Title/Role	Education/Experience	Specialized Training/Certifications	Signature/Date*
Matthew Campbell	Project Manager **Quality Manager	BS- Aeronautics MA- Teaching	Neptune DQO/NEPA ISO 9001:2015 Lead Auditor	 12/15/2025
Mason Murphy	EESP Program Manager	BS - Chemistry		 12/15/2025

\*Signatures indicate personnel have read and agree to implement this QAPP as written.

\*\*Due to the size of the agency, the CTUIR Project Manager and Quality Manager roles are combined. The CTUIR Project/Quality Manager will maintain objectivity in the QA role and is not directly involved in data acquisition.

## 6. Communication Pathways

The table below reflects information from UFP-QAPP worksheet #6 (EPA, 2005).

Communication Driver	Organization	Name	Contact Information	Procedure (timing, pathway, documentation, etc.)
Regulatory agency interface	Environmental Protection Agency (EPA)	Vanessa Marshall, Project Officer  Cindy Fields, Regional Quality Assurance Manager	<a href="mailto:Marshall.Vanessa@epa.gov">Marshall.Vanessa@epa.gov</a>  <a href="mailto:Fields.Cindy@epa.gov">Fields.Cindy@epa.gov</a>	Monthly meetings with CTUIR
Check-in Meetings	CTUIR and Alta	Jeremy Johnson/ Susan Spalinger/ Matthew Campbell	<a href="mailto:jeremy.johnson@alta-se.com">jeremy.johnson@alta-se.com</a> , <a href="mailto:susan.spalinger@alta-se.com">susan.spalinger@alta-se.com</a> , <a href="mailto:matthewcampbell@ctuir.org">matthewcampbell@ctuir.org</a>	Conference calls will be scheduled as needed between CTUIR and Alta to discuss project activities and progress.
Progress reports	Alta	Jeremy Johnson	<a href="mailto:jeremy.johnson@alta-se.com">jeremy.johnson@alta-se.com</a>	Monthly progress reports are submitted to the CTUIR project manager via email detailing activities and deliverables completed during the prior month
QAPP changes	CTUIR and Alta	Matthew Campbell, Jeremy Johnson	<a href="mailto:matthewcampbell@ctuir.org">matthewcampbell@ctuir.org</a> , <a href="mailto:jeremy.johnson@alta-se.com">jeremy.johnson@alta-se.com</a>	
QAPP changes during project execution	CTUIR and Alta	Matthew Campbell, Jeremy Johnson	<a href="mailto:matthewcampbell@ctuir.org">matthewcampbell@ctuir.org</a> <a href="mailto:jeremy.johnson@alta-se.com">jeremy.johnson@alta-se.com</a>	
Corrective actions	Alta	Jeremy Johnson	<a href="mailto:jeremy.johnson@alta-se.com">jeremy.johnson@alta-se.com</a>	
Data verification issues, e.g.,	CTUIR	Matthew Campbell	<a href="mailto:matthewcampbell@ctuir.org">matthewcampbell@ctuir.org</a>	Issues logged in Data Review Log and documented in Data Validation Memo



incomplete records				
Data validation issues, e.g., non-compliance with procedures	CTUIR	Matthew Campbell	<a href="mailto:matthewcampbell@ctuir.org">matthewcampbell@ctuir.org</a>	Issues logged in Data Review Log and documented in Data Validation Memo
Data review corrective actions	CTUIR	Matthew Campbell	<a href="mailto:matthewcampbell@ctuir.org">matthewcampbell@ctuir.org</a>	
QAPP maintenance and distribution	CTUIR	Matthew Campbell	<a href="mailto:matthewcampbell@ctuir.org">matthewcampbell@ctuir.org</a>	

## 10. Problem Definition

### 10.1. Introduction

This Quality Assurance Project Plan (QAPP) specifies the preparation of an emissions inventory to support CTUIR in identifying and characterizing sources of outdoor air emissions that may affect Tribal lands, First Foods, and community health. The emissions inventory will provide a baseline understanding of criteria air pollutants (CAPs) and hazardous air pollutants (HAPs) within and surrounding the CTUIR reservation.

This emissions inventory is part of a broader effort by CTUIR to assess environmental risks to First Foods, Tribal health, and culturally significant landscapes (CTUIR, 2024). This emissions inventory is limited to secondary data sources and does not include site-specific monitoring.

### 10.2. Receptors and Exposure Pathways

The primary receptors considered in this inventory are residents of the Umatilla Indian Reservation, impacted by air emissions released within 50 miles of the reservation boundary.

The primary exposure pathway considered is inhalation of ambient air pollutants. Deposition of airborne pollutants onto soil, water, and vegetation may also be relevant for indirect exposures (e.g., ingestion of First Foods and incidental ingestion of soils and water).

### 10.3. Project Decision Conditions

The emissions inventory will support CTUIR's strategic planning efforts by identifying potential areas of concern. The following decision logic outlines how inventory results may guide next steps.

- If the inventory identifies emissions sources or pollutants that are relevant to CTUIR's environmental priorities, then those findings may support recommendations for further investigation, coordination with Tribal monitoring efforts, or coordination with regulatory agencies.
- If the inventory reveals gaps in available emissions data, then those gaps will be documented and may inform recommendations for future data collection.

## 10.4. Pollutant Scope

This inventory will include emissions of:

- CAPs: PM<sub>2.5</sub>, PM<sub>10</sub>, NO<sub>x</sub>, SO<sub>2</sub>, CO, VOCs, and lead.
- HAPs: The 187 pollutants listed under Section 112(b) of the Clean Air Act (CAA), as reported in the National Emissions Inventory (NEI).

These pollutants were selected based on their availability in the NEI and potential relevance to Tribal health and environmental quality.

Details on data sources and emissions source categories are provided in Section 11 (Project/Data Quality Objectives).

## 11. Project/Data Quality Objectives

The final products of this project are an air emissions inventory report and corresponding data table. This section follows the Environmental Protection Agency's (EPA's) seven-step Data Quality Objectives (DQO) process to ensure that the emissions inventory is scientifically valid, defensible, and compatible with the CTUIR's Central Data Management System (CDMS).

### 1. State the Problem:

Air pollution emissions within and surrounding the CTUIR reservation airshed are currently unknown. This lack of information limits the CTUIR's ability to consider air emissions in environmental management and/or strategic planning efforts.

### 2. State the Goal:

The goal of the current project is to collect and summarize existing data on sites, sources, and contaminant information to determine the locations of point and non-point source pollutants and the identity of individual chemicals or classes of air pollutants.

### 3. Identify Information Inputs:

The primary data source for this inventory is the EPA's NEI. Where appropriate and available, state-level emissions inventories from the Oregon Department of Environmental Quality (ODEQ) and/or the Washington State Department of Ecology (Ecology) may be used to supplement or validate NEI data.

The inventory will include emissions from the following source categories:

- Point Sources: Large, stationary sources such as industrial facilities and power plants.
- Nonpoint Sources: Smaller, diffuse sources such as residential heating, agriculture, and small businesses.
- Onroad Mobile Sources: Motor vehicles operating on public roadways, including passenger cars, trucks, and buses.
- Nonroad Mobile Sources: Equipment and vehicles not typically used on roads, such as construction equipment, locomotives, and recreational vehicles.
- Fires: Emissions from wildfires and prescribed burns.

### 4. Define the Boundaries of the Study:

- Geospatial boundary : Within 50 miles (minimum) of the CTUIR exterior boundaries. Due to the nature of available emissions data, which is typically reported at the county level, the inventory will include all counties that intersect this 50-mile buffer. Figure 1 depicts the area of interest. This boundary allows inclusion of emissions from the regional industrial and data center hub centered near Boardman, Oregon and the Tri Cities region in Washington State.

- Temporal boundary: The emissions inventory data will consist of data collected within the last 5-year period<sup>1</sup>. The last published NEI is from 2020.

## 5. Develop the Approach

Data will be obtained from the EPA's NEI. The NEI provides attributes including:

- Facility or source name and geographic location (e.g., county, latitude/longitude)
- Source Classification Codes (SCCs) and descriptions
- Emission quantities by pollutant (e.g., tons/year)
- Source category (e.g., point, nonpoint, onroad, nonroad, fires)
- Pollutant-specific information, including CAPs, HAPs, and greenhouse gases (GHGs)

These attributes will provide information regarding the current emissions, which can be used to identify data gaps and/or identify emissions for further evaluation. Data will be aggregated in a tabular format using Microsoft Excel.

## 6. Specify Acceptance Criteria

Evidence of meeting the DQOs will be based on the presence of complete and accurate metadata that supports the validity and traceability of secondary data sources. Metadata requirements, including data description, originator, access source, publication date, time period, and spatial information, are provided in Section 13.3. Additionally, data must be compatible with CTUIR's CDMS to support long-term use, including future updates.

To ensure consistency and defensibility of the emissions inventory, the following acceptance criteria will be applied:

### 1) Environmental Data

- a. Air emissions estimates will meet State Implementation Plan (SIP) requirements, the National Ambient Air Quality Standard (NAAQS) Implementation Rules, and the CAA requirements, compiled under the federal NEI program.
- b. Air emissions source summaries will include monitoring data and metadata at a minimum.
- c. Data must meet the Data Quality Indicators (DQIs) in the following table. The following DQIs apply to the internal handling of secondary data sources. They are intended to ensure that data downloaded from the NEI are accurately transferred, stored, and represented in the emissions inventory.

---

<sup>1</sup> This timeframe is based on guidance from the Tribal Air Monitoring Support Center (TAMS), which recommends using the most recent triennial National Emissions Inventory (NEI) dataset for county-level emissions data. As the 2023 NEI has not yet been published, the 2020 NEI is the most current available dataset. (<https://itep.nau.edu/tams/resources/emissions-inventory/>)

DQI	Acceptance Criteria
Completeness	All data fields downloaded from the NEI for the area of interest are retained and accurately represented in the CTUIR EI. This criterion ensures that no data are inadvertently omitted due to internal data handling errors (e.g., copy/paste issues).
Representativeness	All counties that intersect the study area are included in the inventory. This is measured by comparing the list of counties intersecting the buffer (as shown in Figure 1) with the counties represented in the NEI dataset used for the inventory.
Comparability	Inventory data collected using consistent methods (only applicable if incorporating data from State databases to supplement NEI data)

## 2) Geospatial

- a. Geographic coverage criteria represents the target area within 50 miles of the CTUIR reservation boundaries.
- b. Sufficient metadata to evaluate, document and describe the limitations of the data.

## 7. Develop the Plan for Obtaining Data:

Data will be obtained utilizing the EPA 2020 NEI Data Retrieval Tool for Umatilla County, Oregon and surrounding counties as shown in Figure 1 to characterize the airshed within and surrounding the CTUIR reservation boundary. Collected data and associated metadata will be managed according to best practices to ensure the accuracy, completeness, and quality of the data. Data/metadata will be exported into excel or comma separated value (CSV) files and stored on Alta and CTUIR servers. All data files will be labeled to reflect the source of the data, the date range of the data (i.e. the beginning day, month and year through the end day, month, and year). If these details are not available, the year will be used.

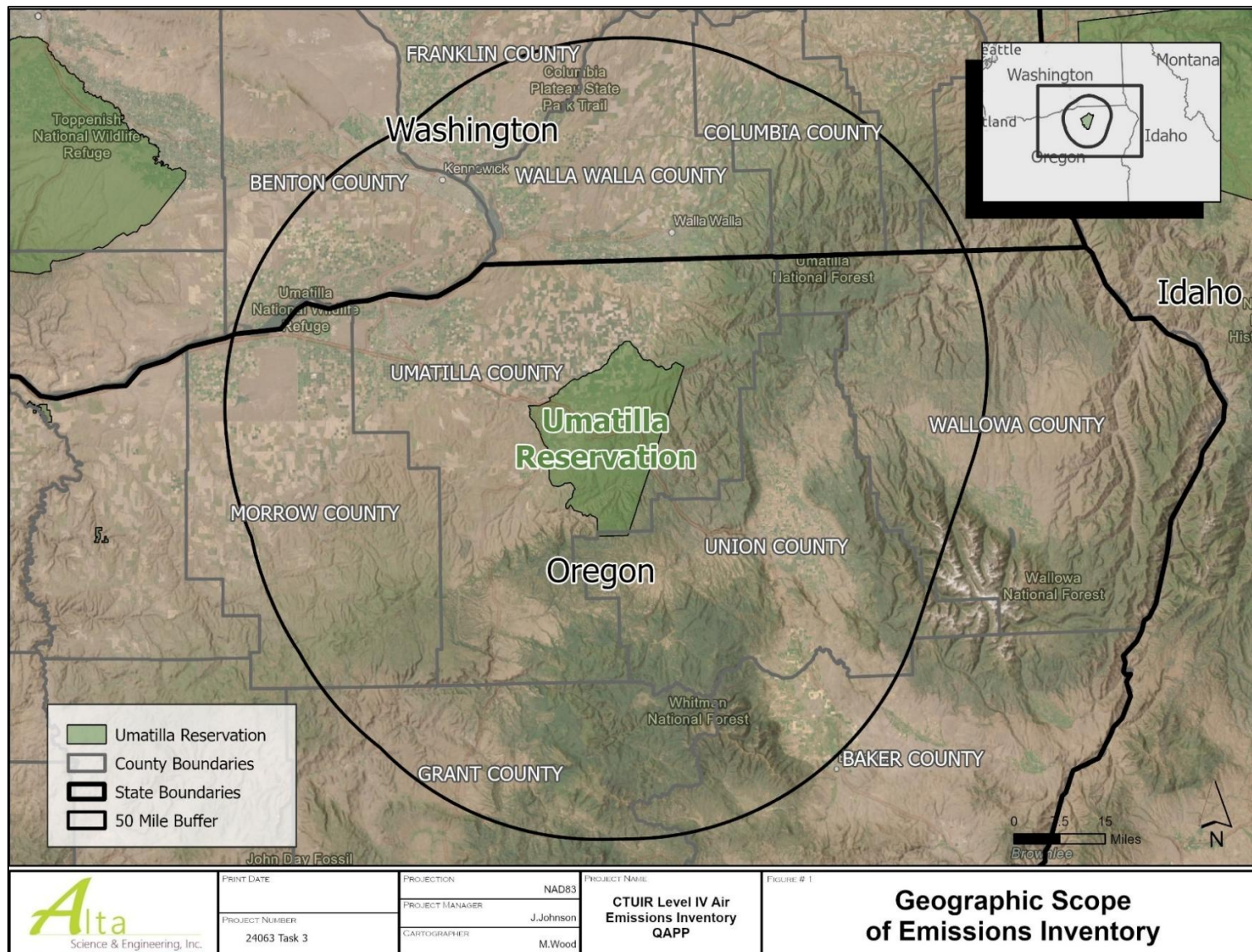


Figure 1. Geographic Scope of Emissions Inventory.



## 13. Secondary Data Uses and Limitations

### 13.1 Sources of Existing Data

No new data will be collected for this emissions inventory. Data used in this project will be collected from secondary data sources, primarily the federal NEI database. State-level emissions inventories from the ODEQ and/or Ecology may be used to supplement or validate NEI data, if necessary. Table 1 summarizes the data sources, uses, and quality assurance (QA) levels.

### 13.2 Intended Use of Existing Data

The intended use of the data is to identify and characterize outdoor air emission pollutants, concentrations, and potential sources and source types. These data will support CTUIR's strategic planning efforts.

### 13.3 Limitations on the Use of Existing Data

Air emissions inventories will draw from national or state databases that have existing QA procedures in place for the collection and reporting of data. Data will be subject to additional quality assurance/quality control (QA/QC) procedures (e.g., visual inspection of data transfers; data review is further discussed in Section 34) to ensure accurate and traceable transfer of data to the project dataset.

General criteria for the selection and use of existing data are as follows:

- Ideally, datasets should include QA/QC metadata for precision and accuracy, if this is not available, metadata should indicate methods and dates that can be reviewed and included if found to be acceptable.
- All metadata should include at a minimum: data description, originator, source of access, publication date, time period.
- While NEI data are considered high-quality due to federal QA/QC protocols, any supplemental datasets will be reviewed for completeness, consistency, and compatibility with project objectives.



Table 1. Sources of Existing Data, Data Uses, and QA Levels

Data Type	Source	Description	Format	Intended Use	Limitations	QA/QC
Air Emissions	<a href="#">EPA 2020 NEI Database</a>	2020 county-level air emissions inventory data are available for viewing and download, including CAP, HAP, and GHG emissions concentrations and sources.	Excel, PDF reports	Characterizing and identifying outdoor air pollutants	Only 2020 NEI dataset is currently available; 2021 – 2023 not yet published.	Federal QA/QC procedures apply
Air Emissions	<a href="#">ODEQ Air Toxics Emissions Reporting</a>	State-level emissions data for Oregon counties within the study area		Supplementing NEI data; validating emissions estimates	May differ in methodology or reporting year from NEI	State QA/QC procedures apply
Air Emissions	<a href="#">Washington Department of Ecology Air Emissions Inventory</a>	State-level emissions data for Washington counties within the study area		Supplementing NEI data; validating emissions estimates	May differ in methodology or reporting year from NEI	State QA/QC procedures apply

## 14. Project Tasks & Schedule

Table 2 below reflects information from UFP-QAPP worksheets #14 and #16 (EPA, 2005).

Table 2. Project Tasks & Schedule

Activity	Responsible Party	Planned Start Date	Planned Completion Date	Deliverable(s)	Deliverable Due Date
QAPP	CTUIR & Alta	10/27/2025	11/21/2025	QAPP for Level IV Emissions Inventory	11/21/2025
Data Retrieval	Alta	11/21/2025	11/26/2025	-	-
Reporting	Alta	11/26/2025	12/31/2025	1) Emissions Inventory Spreadsheet with instruction for maintenance and updates 2) Level IV Emissions Inventory Report	12/31/2025

## 29. Project Documents and Records

The information in this section reflects information from UFP-QAPP worksheet #29 (EPA, 2005).

Electronic data and information collected during this project will be organized and stored in a secure project file on Alta servers. The project files will be organized by data type and source to simplify data searches and data extraction. The organization of folders and subfolders will be determined by project management and will follow a standardized naming convention to ensure consistency and traceability. Primary folders will include “Original Data” and “Secondary-Working Data,” with subfolders organized by data source (e.g., NEI). All records will be maintained in accordance with EPA and CTUIR data retention policies.

### “Original” Data Sets

“Original data sets” refer to files downloaded directly from government websites and databases. These may consist of variety of data file types and formats including but not limited to CSV and excel files (i.e., spreadsheets) and open file formats (e.g., PDFs). These files may contain a wide range of data including geospatial data, analytical data, and/or metadata. All of the “Original” data sets will be stored in a read-only format to maintain data integrity.

“Original” data sets will be first saved to the applicable Original Data folder. The naming convention for individual data files will be based on the data source, county, and date of data (e.g., NEI\_Umatilla\_2020.csv)

### “Secondary” and Working Data Files

Working files will consist of spreadsheets compiling data contained in the “original” data sets. Data entered into spreadsheets may be copied and pasted from other files. All emissions inventory data will be compiled and maintained in Microsoft Excel spreadsheets to support analysis, reporting, and integration with CTUIR’s CDMS. These files will be version-controlled and stored in secure project directories. All data entries will be manually spot checked for accuracy by project management or designated QA personnel on a routine basis or otherwise directed (e.g., upon new data entries). Data review is further discussed in Section 34.

Final deliverables will include:

- A Microsoft Excel spreadsheet containing emissions data and metadata.
- A Level IV Emissions Inventory Report.

These will be submitted to CTUIR and made available for EPA review.

Final QAPP, EI, Spreadsheet and any associated files will be stored in working CTUIR-EESP drives and archived to CTUIR CDMS drives.

## 34. Data Review

### 34.1 Data Verification and Validation

All data used in this emissions inventory will be compiled from existing, publicly available sources, primarily the EPA's NEI, and supplemented where appropriate by state-level emissions inventories. No new data will be generated as part of this project. Table 3 presents example emissions inventory entries for facility-level and county-level data.

Verification and validation procedures will ensure that downloaded data are complete, correctly transferred, and traceable to their original sources. These procedures include:

- **File Format and Structure:** Data will be downloaded in structured formats (e.g., CSV, Excel) and stored on secure Alta and CTUIR servers.
- **File Naming and Labeling:** Each dataset will be labeled with descriptive file names that include the data source, geographic scope, and date range.
- **Metadata Preservation:** Metadata accompanying each dataset will be retained and reviewed to ensure traceability and transparency. Metadata requirements are detailed in Section 13.3.
- **Data Integrity:** Original datasets will be stored in read-only format to maintain integrity. Working files used for analysis or summary will be clearly distinguished and version-controlled.
- **Validation Criteria:** Data will be considered valid if they meet the acceptance criteria outlined in Section 11, including completeness, representativeness, and comparability with CTUIR's CDMS.

Table 3. Example Emissions Inventory Entries for Facility-Level and County-Level Data													
2020 Facility-Level Data for Point Emissions													
State	State-County	Pollutant	Emissions (Tons)	Pollutant Type	Site Name	EIS Facility ID	Facility Type	Street Address	NAICS	Lat	Lon	EPA Region	FIPS
Oregon	OR-Umatilla	1,3-Butadiene	0.00000	HAP	Meacham Compressor Station	7219911	Compressor Station	WEST SIDE OF I-84	Pipeline Transportation of Natural Gas	45.4876	-118.4003	10	41059
Oregon	OR-Umatilla	Acetaldehyde	0.00045	HAP	Meacham Compressor Station	7219911	Compressor Station	WEST SIDE OF I-84	Pipeline Transportation of Natural Gas	45.4876	-118.4003	10	41059
Oregon	OR-Umatilla	Acrolein	0.00008	HAP	Meacham Compressor Station	7219911	Compressor Station	WEST SIDE OF I-84	Pipeline Transportation of Natural Gas	45.4876	-118.4003	10	41059
2020 County-Level Process Data for Mobile and Nonpoint Emissions													
State	State-County	Pollutant	Emissions (Tons)	Pollutant Type	SCC Code	EIS Sector	Source Description	SCC LEVEL 1	SCC LEVEL 2	SCC LEVEL 3	SCC LEVEL 4	EPA Region	FIPS
Oregon	OR-Umatilla	Ammonia	0.00962	CAP	2102002000	Fuel Comb - Industrial Boilers, ICEs - Coal	Nonpoint	Stationary Source Fuel Combustion	Industrial	Bituminous/ Subbituminous Coal	Total: All Boiler Types	10	41059
Oregon	OR-Umatilla	Carbon Monoxide	1.60395	CAP	2102002000	Fuel Comb - Industrial Boilers, ICEs - Coal	Nonpoint	Stationary Source Fuel Combustion	Industrial	Bituminous/ Subbituminous Coal	Total: All Boiler Types	10	41059
Oregon	OR-Umatilla	Cyanide	0.00080	HAP	2102002000	Fuel Comb - Industrial Boilers, ICEs - Coal	Nonpoint	Stationary Source Fuel Combustion	Industrial	Bituminous/ Subbituminous Coal	Total: All Boiler Types	10	41059
Notes:													
EIS Facility ID = Emissions Inventory System facility identification number													
NAICS = North American Industry Classification System													
FIPS = Federal Implementation Plans													
SSC = Source Classification Code													

## 34.2 Data Evaluation

Data evaluation will include review of all accompanying metadata to determine whether the data are suitable for use in the emissions inventory. The primary source of project data will be the NEI, potentially supplemented with state agency data, that includes complete metadata that thoroughly documents the methods for collecting data as well as any QA/QC procedures applied. Due to the secondary nature of the project data, the project team will have no control over the completeness or collection methods of NEI and/or state agency data; however, the project team will consider data evaluation pertaining to the handling and transfer of data from NEI or state agency databases to the emissions inventory.

The Standard Operating Procedure for data evaluation consists of the following steps:

- 1) Visually inspect the data. Examine the table and data fields to ensure that the necessary information exists. Sort the data or display in a pivot table to examine the range of values for the attributes.
- 2) Examine the metadata or other available files from the generating agency regarding the data creation
- 3) Create working copies of the data files to preserve the integrity of the original datasets.
- 4) Identify and remove blank, duplicate, or incomplete records from working files that will not contribute useful information to the inventory.
- 5) Edit the copied datasets to the defined geographic area of interest.
- 6) If feasible, augment incomplete datasets with other available datasets; e.g., state emissions inventories.
- 7) Document reasons and procedures for data amendments, corrections, or exclusion in a data review log.

Alta will prepare a data validation summary memo, which will be included as an appendix to the Emissions Inventory Report. The memo will summarize the data validation process, including metadata review, data exclusions, corrections, or augmentation.

## Works Cited

- Confederated Tribes of the Umatilla Indian Reservation (CTUIR), 2024. CTUIR Strategic Pollution Prevention Planning and Implementation Quality Assurance Project Plan (QAPP). June 30.
- Environmental Protection Agency (EPA). 2005. *Uniform Federal Policy for Quality Assurance Project Plans (UFP-QAPP)*. EPA/505/B-04/900A.  
<https://www.epa.gov/quality/uniform-federal-policy-quality-assurance-project-plans>
- EPA, 2020. 2020 National Emissions Inventory (NEI) Technical Support Document.  
<https://www.epa.gov/air-emissions-inventories/2020-nei-technical-support-document>
- EPA, 2023. *Air Knowledge Training: EMIS101-SI Fundamentals of Emissions Inventories*.
- EPA, 2025. *Air Emissions Inventories*. <https://www.epa.gov/air-emissions-inventories>
- Oregon Department of Environmental Quality (ODEQ). *Statewide Emissions Inventory Reports*. <https://www.oregon.gov/deq/aq/programs/Pages/Air-Quality-Planning.aspx>
- Washington State Department of Ecology (Ecology). *Air Emissions Inventory Resources*.  
<https://ecology.wa.gov/Air-Climate/Air-quality/Air-pollution-sources>