



Engineers and Soil Scientists

**SUSTAINABILITY & CARBON
VERIFICATION SERVICES**



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WHY AWT?

AWT maintains a staff of professional engineers and verification professionals with decades of experience in waste management and carbon offset projects. Since 2006, AWT has worked with project developers to verify carbon offset projects, verify low carbon fuel projects, and develop carbon footprints and corporate sustainability plans. AWT understands that getting your project done right is just as important as getting it done on time.

CARB OFFSET PROJECT VERIFICATION

CARB Livestock and Digester Projects

AWT started as a small engineering firm that focused on livestock waste management. Our focus has always been on helping farms maintain environmental compliance with their operations and improving operations that could provide a financial benefit for their farms. Therefore, helping farmers and project developers navigate through the carbon offset verification process is a natural fit for AWT.

AWT's verification staff all have agricultural engineering degrees, have experience in the design and evaluation of manure management systems, and have provided verification services for over 300 carbon offset projects. Having this experience and knowledge allows AWT to quickly understand the historical baseline of the project as well as how the project operations and monitoring are performed.



CARB Mine Methane Capture (MMC) Projects

AWT has credentialed lead verifiers to perform third-party verifications for CARB mine methane capture projects. AWT works with project owners to ensure a smooth verification of the capture and destruction of methane that would otherwise be vented from mining operations at active underground and surface coal/trona mines. We also can verify the emissions from abandoned underground coal mines. AWT's engineers understand the monitoring systems involved and can efficiently work through the site audit and desk audit portions of the verification.



CARB LOW CARBON FUEL STANDARD VERIFICATIONS AND OREGON CLEAN FUELS PROGRAM

VALIDATION AND VERIFICATION OF FUEL PATHWAYS

AWT provides verification services for CARB LCFS and Oregon CFP projects using a systematic approach that makes the process efficient and less frustrating for the project developers. Our verification team has the background and credentials necessary to get the job done right and on time.

The validation/verification of a fuel pathway report is a life cycle analysis for a renewable fuel that tracks the carbon intensity of the fuel from the production to the utilization of the fuel (well-to-wheel analysis). Since livestock projects offer one of the most advantageous Carbon Intensity (CI) scores, a large percentage of the early projects relate to livestock waste (dairy and swine). Since this is our expertise, we are uniquely qualified to perform this work.



"AWT was great to work with throughout the process. Having deep experience verifying Ag-based projects, they easily knew their way around the information making the process quick and efficient"

-Mark M.

VERIFICATION OF QUARTERLY FUEL TRANSACTION REPORTS

All LCFS projects which inject RNG/CNG into a common carrier pipeline to be delivered in California must have an annual verification of fuel transaction reports. We review the transaction logs from the injection point and track the gas to its dispensing location.

AWT works with both the fuel producer and the fuel offtake company to ensure an efficient and complete verification of these transactions.

VOLUNTARY CARBON OFFSETS

Verification & Validation of Livestock and Waste Handling & Disposal Projects



AWT is an ANAB-accredited verification and validation body under ISO 14065 (Greenhouse Gas Verifications) for scopes 5 & 6, Livestock and Waste Handling & Disposal projects.

We operate under the following registries:

- Climate Action Reserve (CAR)
- Verified Carbon Standard (VCS)
- American Carbon Registry (ACR)
- Others, As Needed

We follow ANAB and internal protocols for all approved project types to streamline the verification process. Our verification staff understands that a delay in the issuance of credits is a serious problem. That is why our staff provides an upfront schedule of milestones so it will be easy to know when to expect things to be completed. We also offer regular project update calls or virtual meetings to ensure everyone stays up-to-date on the process.

AWT can perform verifications for Landfill, Livestock, Organic Waste Disposal, Organic Waste Composting, and Mine Methane Capture Projects via voluntary carbon offset programs.



OUR TEAM



Hal Langenbach, PE

VP Agriculture and Environmental Services

With 25+ years of experience in agricultural engineering and waste management, Hal understands waste-to-energy projects. Hal has been working in the carbon offset field for over 15 years, and has experience with a wide variety of projects. He has verified/validated projects through CARB Cap-and-trade, CARB LCFS, Oregon CFP, and voluntary offset programs (CAR, ACR, and VCS).



Chris Mosley, PE

CEO

Chris is an accredited lead verifier, whose background in agricultural engineering helps streamline the verification process. Chris has been performing carbon offset verifications alongside Hal for 15 years including Livestock, Landfill, Organic Waste Digestion, & Organic Waste Composting. Chris is also a lead verifier for CARB offsets, CARB LCFS, Oregon CFP, and voluntary programs.



Travis Sexton

Assistant Project Engineer

Travis is a CARB-accredited lead verifier for the cap-and-trade program and a lead verifier for the LCFS programs with years of experience performing verification services, specializing in data review and aggregation.



Katie Cross, EI

Assistant Project Engineer

Katie is a CAR-accredited lead verifier for livestock and waste handling & disposal projects and an LCFS accredited verifier. Katie specializes in landfill verifications and is an integral member of the voluntary carbon team.

California Air Resources Board Carbon Offsets

AWT, Inc - H2-19-012
Chris Mosley - H2-19-205
Hal Langenbach - H2-19-104
Travis Sexton - H2-20-244

California Air Resources Board Carbon Offsets MRR

Chris Mosley - H-20-074
Hal Langenbach - H-20-059

California Air Resources Board Low Carbon Fuel Standard

AWT, Inc - H3-20-002
Chris Mosley - H3-20-099
Hal Langenbach - H3-20-084
Travis Sexton - H3-20-190
Katie Cross - H3-22-119

Oregon Clean Fuels Program

AWT, Inc - CFPVB-001
Chris Mosley - CFPV-019
Hal Langenbach - CFPV-018
Travis Sexton - CFPV-036

Projects We Have Verified

A1 Keenesburg (CAR796)
A1 Moapa (CAR869)
ABEC #15 LLC dba Hamstra Dairy Biogas (F00181)
ABEC #5 dba Trilogy Dairy Biogas (F00171)
ABEC #6 dba Maple Dairy Biogas (F00172)
ABEC #7 dba T&W Dairy Biogas (F00173)
ABEC #8 dba S&S Dairy Biogas (F00179)
ABEC #9 dba Moonlight Dairy Biogas (F00180)
Adirondack Dairy (CAR1298/CALS5398)
AgPower Jerome RNG Project (F0077)
Alliance Dairy (ACR234/CALS5134)
Angelina County Landfill (CAR888)
AR-Joy Farm Dairy Digester (CAR1324/CALS6324)
Aurora Ridge Dairy (CAR1152/CALS5152)
B1 Dairy Farm
Beckley Pocahontas Mine Methane Incineration Project (ACR746/CAMM5746)
Belonave Biogas LLC (F00176)
Big Sky Dairy Digester (F00329)
Black & Butler Farms
Blue Ridge Landfill (456)
Blue Spruce Farm Anaerobic Digester
Box Canyon Dairy & Riverbend Dairy
Bridgewater Dairy (CAR1122/CALS5122)
Brook View Dairy Methane Reduction Project (CAR1036/CALS5041)
BV Biogas LLC (F00174)
Cedar Grove Composting (CAR825)
Central Sands Dairy (CAR1123/CALS5123)
Chaput Family Farms (CAR1275/CALS5375)
Circle 4 (Blue Mountain Biogas)
Clean Fuel Partners Dane County Biodigester (ACR390/CALS5390)
Corinth Abandoned Mine Methane Recovery Project (ACR388/CAMM5244)
Coronado Dairy Farm (F00009)
Cottonwood Dairy Livestock Gas Capture Project (CAR1151/CALS5151)
Cow Poo Digester (ACR353/CALS5353)
CSE Arizona Facility (CAR1076/CALS5074)
Dairy Dreams (CAR994/CALS5109)
Dairyland Digester (CAR969/CALS5021)
Deep Mine 26 Abandoned Mine Methane Recovery Project (ACR607/CAMM5607)
Deer Run Digester (CAR982/CALS5020)
District 45 Dairy (CAR1127/CALS5127)
Double A Dairy (CAR956)
Dry Creek RNG (F00342)
Edaleen Cow Power LLC (ACR239/CALS5139)
Fair Oaks Dairy Farm GHD Designed Digester (CAR1120/CALS5120)
Farm Power Rainer
Farm Power Rexville
Fiscalini Farms Anaerobic Digester (CAR1142/CALS5142)
Four Hills Farm (CAR1281/CALS5324)
Gardeau Crest Dairy (ACR241/CALS5181)
George DeRuyter and Sons Dairy Methane Reduction Project (CAR1080/CALS5094)
Greater Lebanon Refuse Authority Landfill Gas Collection and Combustion Project
Green Meadows (ACR236/CALS5136)
Grotegut Dairy Farm, Inc. (CAR1135/CALS5143)
Hamptons Road Recovery Center (CAR1562)
Hickory Hills Farm
High Island Dairy (ACR313/CALS5263)
High Plains Ponderosa Dairy Phase 2
Hilltop Sand and Gravel Landfill (CAR829)
Holsum Elm Dairy (CAR1153/CALS5153)
Holsum Irish Dairy (CAR601/CALS0108)
Homestead Green Energy Project (ACR259/CALS5289)
Ideal Family Farms Digester Project (CAR1002/CALS5025)
Jacksonville Carbon Footprint
Katoria Chemical Industries Limited
Kettle Butte Digester (ACR349/CALS5349)
Khemani Distilleries Limited
Kimble Sanitary Landfill (CAR 621)
Lambs Dairy (CAR1253/CALS5139)
Lawnhurst Farms Methane Reduction Project (CAR1274/CALS5374)
Lenz Composting (CAR1096)

Linde (CAR1077/CALS5075)
Lochmead Dairy
LP Gill Landfill (455)
Maple Leaf Dairy East (CAR1156/CALS5156)
Maple Leaf Dairy West (CAR1155/CALS5155)
Maple Valley (CAR866)
McMoo Biogas LLC (F00177)
Middle Fork Abandoned Mine Methane Recovery Project (ACR546/CAMM5546)
Mine 84 Abandoned Mine Methane Recovery Project (ACR560/CAMM5560)
New Energy One (F00231)
New Era Abandoned Mine Methane Recovery Project (ACR578/CAMM5578)
New Future Abandoned Mine Methane Recovery Project (ACR669/CAMM5669)
Newhouse Biogas LLC (F00178)
Oak Lea Dairy
Oaktown Fuel 1 Mine Methane Incineration Project (ACR694/CAMM5694)
Oaktown Fuel 2 Mine Methane Incineration Project (ACR694/CAMM5694)
Optima KV, LLC (CAR1340/CALS6340)
Orient 6 Abandoned Mine Methane Recovery Project (ACR542/CAMM5542)
Pagel's Ponderosa Dairy Methane Reduction Project (CAR1049/CALS5097)
Patterson Farms COP (CAR1137/CALS5144)
Pattiki 2 Abandoned MMC Project (ACR572/CAMM5572)
Peninsula (CAR796)
Perennial CMM CMB7-1 Flare Project (ACR731/CAMM5731)
PMR#3 Abandoned MMC Project (ACR650/CAMM5650)
Raleigh County LFG
Remley Family Farms (CAR1321/CALS6321)
Rend Lake Abandoned Mine Project (ACR808/CAMM5808)
Rio Grande Valley Landfill (CAR512)
Riverview Dairy (CAR449)
Robeson County Landfill (426)
Rosendale Anaerobic Digester (ACR283/CALS5223)
Royal Dairy Solid Separation Enhanced by Vermicomposting (VCS2259)
Scenic View Dairy Methane Reduction Project (CAR1035/CALS5040)
Sioux Falls (462)
Spruce Haven Farm COP (CAR1184/CALS5284)
Statz Bros Home Farm Anaerobic Digester (ACR322/CALS5322)
Storms Hog Power (CAR1145/CALS5175)
Stotz Dairy Facility (F00155)
Stotz Southern Generation (CAR1078/CALS5077)
Sunny Knoll Farms Anaerobic Digester (CAR1033/CALS5042)
Sunnyside Farms COP (CAR1138/CALS5145)
Swiss Valley Farms (CAR1283/CALS5325)
Synergy Dairy (ACR235/CALS5135)
T&M Bos Dairy (CAR1055/CALS5044)
T&M Herema Dairy (CAR1056/CALS5045)
T&M Hidden View Dairy (CAR1057/CALS5046)
T&M Windy Ridge Dairy (CAR1058/CALS5047)
Transformer Oil Reclamation (ACR223)
Triple G Facility (F00156)
Udder Biogas LLC (F00183)
Uring Abandoned Mine Methane Recovery Project (ACR743/CAMM5743)
Vander Haak Dairy COP (CAR1101/CALS5101)
Vanderhyde Dairy (CAR944)
Verwey Hanford Dairy Digester (CAR1265/CALS5365)
Verwey Madera Dairy Digester (CAR1291/CALS5391)
Volunteer Regional Landfill Gas Project (CAR 436)
Wakker Digester (CAR989/CALS5019)
Washington Beef OWD (1008)
West River Dairy (CAR450)
West River Farm Anaerobic Digester Project (CAR1126/CALS5126)
Western Sky Biogas LLC (F00175)
Willet Dairy (CAR977/CALS0094)
Willow Lake Abandoned Mine Project (ACR644/CAMM5644)
Willow Point Dairy (CAR1124/CALS5124)
Winchester Landfill Gas Project
Woodcrest (CAR1246/CALS5346)
WTE-Dallmann, LLC (CAR1143/CALS5146)
Yippee Farms (CAR1232/CALS5332)
Z Best Food Waste Composting (CAR801)

CONTACT US



www.agriwaste.com/carbon



info@agriwaste.com



919-859-0669



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