NOAA FORM 17-4 (4-81) U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

Form Approved OMB Control No. 0648-0025
Expires 05/31/2021

INITIAL REPORT ON WEATHER MODIFICATION ACTIVITIES

This report is required by Public Law 92-205; 85 Stat. 735; 145 U.S.C. 330b. Knowing and willful violation of any rule adopted under the authority of Section 2 of Public Law 92-205 shall subject the person violating such rule to a fine of not more than $10,000, upon conviction thereof.

Complete in accordance with instructions on reverse and forward one copy to:
National Oceanic and Atmospheric Administration
Office of Oceanic and Atmospheric Research
1315 East-West Highway, WWMC-3, Rm 11216
Silver Spring, MD 20910

1. PROJECT OR ACTIVITY DESIGNATION, IF ANY

Panhandle Groundwater Conservation District

2. DATES OF PROJECT

a. DATE FIRST ACTUAL WEATHER MODIFICATION ACTIVITY IS TO BE UNDERTAKEN: 04/01/2022

b. EXPECTED TERMINATION DATE OF WEATHER MODIFICATION ACTIVITIES: 09/30/2022

3. PURPOSE OF PROJECT OR ACTIVITY

Rain Enhancement

4. (a) SPONSOR

NAME: Britney Britten
AFFILIATION: Manager, PGCD
PHONE NUMBER: (806)883-2501
STREET ADDRESS: 201 W. 3rd Street
CITY: White Deer
STATE: TX
ZIP CODE: 79097

4. (b) OPERATOR

NAME: Corey Clay
AFFILIATION: Meteorologist, PGCD
PHONE NUMBER: (806)883-2501
STREET ADDRESS: 201 W. 3rd Street
CITY: White Deer
STATE: TX
ZIP CODE: 79097

5. TARGET AND CONTROL AREAS (See Instructions)

TARGET AREA
LOCATION: North Texas Panhandle
SIZE OF AREA: 6309 SQ. MI

CONTROL AREA
LOCATION: North Texas Panhandle
SIZE OF AREA: 6309 SQ. MI

6. DESCRIPTION OF WEATHER MODIFICATION APPARATUS, MODIFICATION AGENTS AND THEIR DISPERSAL RATES, THE TECHNIQUES EMPLOYED, ETC. (See Instructions)

The PGCD utilizes a single and twin engine aircraft equipped with flare racks to enhance rainfall in 7 1/4 counties in the north Texas Panhandle (Carson, Gray, Wheeler, Armstrong, Donley, Roberts, Potter, and Hutchinson Counties). Flares include 40g glaciogenic (5.5g AgI) and 1kg hygroscopic flares (CaCl2). Operations are conducted by a state licensed meteorologist (licensed by TDLR) using radar provided by Weather Decisions Technologies via the NWS. Aircraft are tracked via telemetry on the TITAN radar display. Dosaging can range from 1 flare per cloud upwards to 15 flares per cloud, depending on the size and characteristics of the cloud. Any operations will be suspended under flood, 20 minutes after an issued severe thunderstorm,

7. LOG BOOKS *Enter name, affiliation, address, and telephone number of responsible individual from whom log books or other records may be obtained.*

NAME: Corey Clay
AFFILIATION: Meteorologist, PGCD
PHONE NUMBER: (806)883-2501
STREET ADDRESS: 201 W. 3rd Street
CITY: White Deer
STATE: TX
ZIP CODE: 79097

8. SAFETY AND ENVIRONMENT

☐ YES	☑ NO	Has an Environmental Impact Statement, Federal or State, been filed? If yes, please furnish a copy as applicable.
☑ YES	☐ NO	Have provisions been made to acquire the latest forecasts, advisories, warnings, etc., of the National Weather Service, Forest Service, or others when issued prior to and during operations? If yes, please specify on a separate sheet.
☑ YES	☐ NO	Have any safety procedures (*operational constraints, provisions for suspension of operations, monitoring methods, etc.*) and any environmental guidelines (*related to the possible effects of the operations*) been included in the operational plans? If yes, please furnish copies or a description of the specific procedures and guidelines.

9. OPTIONAL REMARKS (See instructions. Use Separate Sheet).

CERTIFICATION: I certify that all statements in this report on this weather modification project are complete and correct to the best of my knowledge and are made in good faith.

NAME OF REPORTING PERSON: Corey Clay
AFFILIATION: Panhandle Groundwater Conservation Distr
SIGNATURE: Corey Clay
Digitally signed by Corey Clay
Date: 2022.03.09 12:05:06 -07'00'
STREET ADDRESS: 201 W. 3rd Street
OFFICIAL TITLE: Meteorologist
CITY: White Deer
STATE: TX
ZIP CODE: 79097
DATE: 03/09/2022
PHONE NUMBER: (417)209-5789

INSTRUCTIONS FOR INITIAL REPORT ON WEATHER MODIFICATION ACTIVITIES

One completed copy of this form is to be received 10 days* or more prior to actual modification activities. A NOAA file number will be assigned by the Administrator after receipt of the initial report for each project or activity.

A supplemental report in letter form referring to the appropriate NOAA file number must be made to the Administrator if the "Initial Report" is found to contain any material inaccuracies, misstatements, omissions, or if there are changes in plans for the project or activity.

*For exceptions, see Sections 908.4(b) and (c), Part 908 of Title 15, Code of Federal Regulations.

Item 1 — Enter designation, if any, used by operator for the project or activity.

Item 2 — Enter: (a) Date first actual weather modification activity is to be undertaken;
(b) Date on which final weather modification activity is expected to occur.

Item 3 — Enter the purposes of the project or activity: e.g., rainfall increase, hail suppression, cold fog dispersal, etc.

Item 4 — Enter: (a) Name, phone number, affiliation, and address of the primary person for whom the project is to be performed (sponsor).
(b) Name, phone number, affiliation, and address of the person primarily responsible for carrying out the project (operator).

Item 5 — A map should be attached showing size and location of target area, control area, coded number and location of each item of ground-based weather modification apparatus and coded number and location of key rain gauges, radars, or other precipitation measuring devices. Also show location of airport for airborne operations.

Item 6 — Describe the weather modification apparatus, modification agents, and the techniques to be used. This would include type of ground or airborne apparatus to be used, type of modification material to be dispensed, rate of dispensing material in grams per hour or other appropriate units, type of precipitation gauges to be used in target and control areas, and any other pertinent information such as type of radars, type of aircraft to be used, techniques to be employed (e.g., cloud-based seeding at 10,000 feet msl).

Item 7 — List name, phone number, affiliation, and address of the responsible individual from whom log books or other records may be obtained.

Item 8 — Provide applicable answers to questions as indicated.

Item 9 — This item is to permit the reporting person to include any information not covered by items 1 through 8 but which he feels is significant or of interest. It is also to be used to include any information not covered elsewhere that the Administrator may request.

INFORMATION PROVIDED UNDER THE PROVISIONS
OF THE
PAPERWORK REDUCTION ACT OF 1995

The Paperwork Reduction Act o f1995 requires that individuals or organizations be provided with the following information if they provide information on paper forms which are collected by the Federal Government.

1. Public Law 92-205, enacted December 18, 1971 (amended by Public Law 94-490, Section 6(b), October 15, 1976) requires that all non-federal weather modification activities in the United States and its territories be reported to the Secretary of Commerce. The National Oceanic and Atmospheric Administration has implemented the Act and the current reporting requirements are published in the Code of Federal Regulations (15 CFR 908).

2. The intent of the program is to increase expertise in the field of weather modification, to allow scientists and other concerned persons to have access to information on current and past efforts at weather modification, to help avoid unneeded and wasteful duplications, to aid in preventing territorial overlapping of weather modification operations, to provide data to assess possible harmful or dangerous activities, and to furnish information to check both desirable and undesirable atmospheric changes against records of weather modification efforts. To meet this objective, information is collected on the location and size of the target area, names and addresses of sponsors and operators, beginning and ending dates of the project, specific purpose, description of apparatus and seeding agents to be used, number of days of operations, number of hours of operations of each type of weather modification apparatus, and total amount of seeing agent used.

3. A Federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with an information collection subject to the requirements of the Paperwork Reduction Act of 1995 unless the information collection has a currently valid OMB Control Number. The approved OMB Control Number for this information collection is 0648-0025. Without this approval, we could not conduct this information collection. Public reporting for this information collection is estimated to be approximately 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the information collection. All responses to this information collection are mandatory pursuant to Public Law 92-205, enacted December 18, 1971 (amended by Public Law 94-490, Section 6(b), October 15, 1976). Send comments regarding this burden estimate or any other aspect of this information collection, including suggestions for reducing this burden to the OAR Weather Program Office at Weather.Modification@noaa.gov.

6. Description of Weather Modification Apparatus, Modification Agents and Their Disposal Rates:

The PGCD utilizes singe engine aircraft equipped with flare racks to enhance rainfall in 7 1/4 counties in the north Texas Panhandle (Carson, Gray, Wheeler, Armstrong, Donley, Potter, Roberts, and the southeastern portion of Hutchinson). Flares include 40g glaciogenic flares (5.5g silver iodide) and 1 kilogram hygroscopic flares (made of mainly calcium chloride). Operations are conducted by a state licensing meteorologist (licensed by the Texas Department of Licensing and Regulation) using radar provided by Weather Decisions Technologies via the National Weather Service. Aircraft are tracked via telemetry on radar screen. Dosaging can range from 1 flare per cloud upwards to 15 flares per cloud, depending on the size of cloud.

8. Safety and Environment

The Panhandle Groundwater Conservation District continues to strengthen its relationship with the National Weather Service. The project meteorologist will monitor weather watches issued by the Storm Prediction Center and all warning, advisories, and short term forecasts issued by the National Weather Service via weather radio, television, and internet websites. The meteorologist is also, at times, in contact with the NWS via telephone, social media, or text message.

The PGCD has also been using new radar software called GR2Analyst. This product provides live radar, watches, warnings, and real time weather reports on the radar screen. This product has also been used for aircraft safety especially with the viewing of vertical updrafts which can at times skew ahead or behind of a storm. This has been utilized as a new tool during seeding operations.

Furthermore, all aircraft are equipped with a 406 Mhz emergency beacon. This will alert a Rescue Coordination Center in the event to a distress message being sent out from our aircraft. It will allow Search and Rescue (SAR) forces to locate the aircraft in a timely manner.