

# Arizona

FOA - Forestry and Fire Management

2023 SB 1720 Grant

## 1. Application/Project Title

Implementation of Battery Powered Positive Pressure Ventilation Fan and Tools

## 2. Organization Name

Northwest Fire District

## Unique Entity Number (UEI)

Entities must register with the System for Award Management (SAM) at [www.SAM.gov](http://www.SAM.gov) to get a UEI. Renewal each year is required to remain active. If you don't have a UEI, please briefly explain where you are in the process.

CSUKARE9KAG4

## 3. Program/Project Congressional District (check all that apply)

6, 7

## 4. Program/Project Legislative District (check all that apply)

16, 17, 18, 20

## 5. Project Goals and Objectives

Goal 1 – Purchase and implement battery powered positive pressure ventilation fans and tools to create a safer working environment for front line suppression personnel.

Objectives:

I. Reduce firefighter exposure potential and environmental impacts produced by current gas-powered ventilation fans by switching to a battery powered platform. Eliminate carbon monoxide (CO) emissions from gas powered equipment and minimize the need for additional fuel and oil products.

II. Improve hearing conservation measures by reducing noise production associated with positive pressure ventilation.

III. Improve firefighter safety by using a lighter weight ventilation fan with ergonomic options for moving and using the fan. Reduce injury potential by reducing tool and equipment weight and using built-in safety features for ease of mobility.

IV. Provide rehabilitation services to first responders by utilizing compatible fan misters that were not an option with gas powered fans.

Goal 2 - Improve firefighting equipment efficiencies by purchasing tools with multi-purpose designs and cross discipline uses.

Objectives:

I. Purchase a nonproprietary battery system that allows batteries to be shared across different tools to reduce equipment costs and maintenance.

II. Purchase a positive pressure ventilation fan that can be used in various environments to include interior operations (no CO), exterior operations, and confined space operations (vertical tilting capability).

## 6. Project Timeline

Equipment will be distributed and implemented into operations as soon as it is received.  
Vendors have not indicated supply issues with these products.

## **7. Project Justification**

The battery powered positive pressure ventilation fan project was initiated by the Northwest Fire District equipment working group in April of 2021. The primary objectives of improving safety of frontline personnel and seeking equipment efficiencies by leveraging advancements in technology led to the evaluation of the current gas-powered positive pressure ventilation fans against battery powered platform. The evaluation (June 2021) resulted in the recommendation of converting the fleet of front-line apparatus to battery powered positive pressure fans and associated tools. This request is part of a larger initiative to address cancer risk to our first responders. The greatest safety benefit is the elimination of Carbon Monoxide exposure to firefighters due to operating ventilation fans (gas). Secondly, additional hydrocarbon products such as fuel and oil for the fans could be eliminated along with the routine maintenance of a gas-powered power plant. An added benefit discovered was the reduction of noise associated with the battery powered equipment, improving hearing conservation practices. An additional feature and value of the battery-operated fans is that they are compatible with misting components that were not available with our gas-powered units; this feature will provide rehabilitation services to our first responders.

The overall project cost will exceed normal budgetary capacity to replace and standardize the front-line fleet. Northwest Fire District has been active in searching for grant opportunities to support this project. The intent of the grant submission is to assist in equipping our firefighters with improved tools of the trade to enhance their safety and extending current budgetary capacity to address other firefighter personal protective equipment safety initiatives {replacement of turnout gear containing Per-and Polyfluorinated Substances (PFAS) and replacing twenty-year-old brush gear district wide}.

## **8. Budget**

141,203

## **9. Project Category**

SB1720 Project

**File Upload Required - Fire Organization Questionnaire - Form A**

[2023 SB1720 Fire Organization Questionnaire \(Form A\).docx](#) \_

**File Upload Required - Budget Form B**

[2023 DFFM SB1720 Grant - Budget \(Form B\).docx](#) \_

**File Upload (Letters of Support)**

[Representative Martinez - letter of support Northwest Fire District.pdf](#) \_

**Upload Vendor/Project Quotes**

[MES Dewalt-Stanley.pdf](#) \_

**Upload Other Attachments (Optional)**

[Northwest Fire District Background.docx](#) \_