TR-220736

UTC
Washington Utilities and Transportation Commission

621 Woodland Square Loop SE
Lacey, WA 98503
PO Box 47250
Olympia, WA 98504-7250
(360) 664-1119 or (360) 664-1262

Web: www.utc.wa.gov

GRADE CROSSING PROTECTIVE FUND
2021 – 2023 GRANT APPLICATION
OPEN CALL FOR PROJECTS

The Washington Utilities and Transportation Commission (UTC), through the Grade Crossing Protective Fund (GCPF), provides grants for projects that eliminate or reduce public safety hazards at railroad crossings and along railroad rights-of-way in Washington State. Any public, private or non-profit entity may submit an application for a GCPF grant.

To apply for a grant to eliminate or reduce a public safety hazard at a railroad crossing or along a railroad right-of-way, complete the following information and submit it and any attachments to the UTC. If you are proposing a change to the warning devices at a public railroad crossing, you must use the Petition to Modify Warning Devices – GCPF, and not this form.

Please be sure to complete the entire form. Incomplete or missing information will delay the grant review process.

Applicant Information

Applicant Name:	Michael R. Lawson
Signature:	
Organization:	South King Fire & Rescue
Address:	Headquarters – 31617 1st Ave. S. Federal Way, WA
Phone:	HQ: 253-839-6234 Michael R. Lawson: 253-632-4246
Email:	mike.rlawson@southkingfire.org

Project Information

Attach additional sheets as necessary that provide the following:

1. A detailed summary of the **hazard** being addressed. Include any information about accidents or incidents at the site and photographs, drawings or other materials that support the application.

See Overview document answer 1.

2. A detailed **summary of the proposed project and how it will eliminate or mitigate the hazard.** Include any drawings or construction plans for the proposed project.

See Overview document answer 2.

3. A list of all other companies, organizations, state agencies or local governments that may be involved in implementing this proposal, and the contact name, address, email, and phone number for each (if known).

See Overview document answer 3.

4. A cost estimate, including:
    a. An itemized list of the total costs of the project.
    b. Names of parties contributing to the project, including the applicant and the amount each is contributing.

See Overview document answer 4.

5. The name of the party responsible for long-term maintenance, such as repair of fencing.

See Overview document answer 5.

6. An estimated timeline of the project.

See Overview document answer 6.

7. A description of how the project's success would be measured.

See Overview document answer 7.

8. A description of the applicant's experience in grant management or successfully completing grant projects of this nature, including years of experience, types of projects completed and project cost/scope.

See Overview document answer 8.

9. Any other information the applicant believes would be useful to the UTC in evaluating the project.

See Overview document answer 9.

Railroad Consent

If the applicant is not the railroad owning the crossing or the tracks, the applicant must submit the attached Railroad Consent form completed and signed by the railroad owning the crossing or tracks.

Submitting the Application

After completing the application, please send the original to:

Washington Utilities and Transportation Commission
Attention: Grade Crossing Protective Fund
621 Woodland Square Loop SE
Lacey, WA 98503
PO Box 47250
Olympia, WA 98504-7250

A signed application may be filed electronically at records@utc.wa.gov. When filing electronically, please specify "Grade Crossing Protective Fund" in the subject line.

Assistance

For questions or assistance, please contact:

- Mike Turcott at (360) 664-1119 or mike.turcott@utc.wa.gov
- Betty Young at (360) 292-5470 or betty.young@utc.wa.gov

Railroad Consent

The undersigned represents the Railroad Company in the accompanying GCPF application.

We have reviewed the application and are satisfied that the conditions are the same as described by the applicant in this matter. We agree to allow construction, modification or demolition on a railroad right-of-way as described in the application.

_____

Printed name of Railroad Representative

_____

Signature of Railroad Representative

_____

Title

_____

Name of Railroad

_____

Mailing Address of Railroad

_____

Telephone Number

_____

Email

Date: _____

Overview

On behalf of the South King Fire & Rescue Hazmat Team, I'm submitting a proposal for (2) Hazmat Drones. Hazmat 361 (addendum A) is a special operations team that responds out of Station 61 located at 3203 S 360th Auburn, WA 98001. The team consists of 12 firefighters that are certified Hazmat Technicians with the ability to respond, assess, and mitigate any hazardous materials incidents within the King County Zone 3 area. Hazmat 361 is the first responding hazmat unit for any railroad or rail crossing incident that involves hazardous material spills. Hazmat 361 is also a part of the Zone 3 Hazmat providers group that includes Renton Fire, Port of Seattle Fire, and Puget Sound Regional Fire Authority. Zone 3 Hazmat providers respond to all major hazmat incidents in South King County.

I am applying for the UTC grade crossings grant to increase the response capabilities of our hazmat team. This proposal will increase the ability to quickly assess and mitigate the hazards associated with the railroad crossings in the Auburn valley area. No hazmat team in Zone 3 currently has this capability.

This grant proposal is for the purchase of (2) Hazmat Drones.

1. The hazards being addressed with this grant request would be all the hazardous materials that are carried by rail through the Auburn valley. Between BNSF and UP, there are more than 75,000 loads of hazardous materials that are transported through the Auburn valley on a yearly basis. Accidents at grade crossings with private or commercial vehicles have a potential for a rail car derailment that could result in a large scale hazmat incident. I have included a map and list of up to 20 grade crossings in the Auburn valley area (addendum B). I have also included a list of WA Rail Crash Stats (addendum C) that show the potential for future incidents. In the event of a train crash at a rail crossing, it is likely that the surrounding community could be in danger from the hazardous materials spill or the involvement of fire. Timely assessment and evacuation will help mitigate these hazards.

2. The proposed project will be to purchase (2) drones. The South King Fire & Rescue Hazmat team will create a drone program for hazardous material responses and train derailments. The first step in responding to train derailment is to find out where and what is involved in the incident. In the event of an accident at a grade crossing, the railcars involved in the derailment could be a long distance away from the actual grade crossing. A drone can be deployed in minutes and sent down range to gather important information including the number of cars involved, access locations or impediments, type of rail cars involved, railcar markings and car number, load limit, empty weight of car, placards, and pressure relief device information. Gathering this much information in short time frame, would be instrumental in eliminating or mitigating the hazard to the public and first responders. Drones can be flown down range in a matter of minutes, rather than suiting up hazmat technicians which can take 30-60 minutes and require additional resources such as backup and decon teams. Distance and access issues could also delay the gathering of important information. If a fire is involved, the thermal imaging camera on the drone can located the seat of the fire, or changes in temperatures within rail cars that can indicate a chemical reaction of the products being transported. The thermal camera can also be used to locate victims or persons in the area that may be in danger. I have included several documents that show the benefits of a drone program and examples of how this program will help mitigate hazards (addendum D, E, F, G, H)

   The plan for implementing the drone program will include purchasing 2 drones, training for hazmat technicians, and creating a policy for the use of drones.

4. The total cost of this proposal is $27,733.96. A quote from Kuker Ranken "KR" has been included (addendum N x2)

5. South King Fire & Rescue will assume responsibility for long-term maintenance and repairs.

6. Implementation of this project could take 6-12 months to be fully operational. This will include purchase of the drones, creating a policy, training and FAA certification.

7. Success of this project will be demonstrated by creating a policy, training, and FAA certification. Hazmat 361 participates in Zone 3 hazmat drills on a weekly basis as well as mission specific quarterly drills such as the most recent drill at the Auburn railyard with BNSF (addendum M). Success will be demonstrated during drills by deploying drones and obtaining critical information for the incident commander. This will show that the drone program is ready and available to help mitigate hazards to the public and emergency response personnel.

8. Hazmat 361 was awarded a grant back in 2005 for a portable weather station. The equipment served the community well for 15+ years. We are also applying for a separate grant to replace our previous weather station. South King Fire & Rescue has applied for and been awarded numerous grants over the years. Hazmat 361 was recently awarded $22,000 from the Washington Department of Ecology for the replacement of our 4-Gas meters.

9. The implementation of this proposal will have an immediate impact on the ability of the South King Fire & Rescue Hazmat Team to mitigate hazardous situations that pose a threat to the life and safety of the surrounding community. With the number of grade crossings in our area and the likelihood of a grade crossing being a contributing factor in potential incidents, it is important to have this unique capability. The ability to obtain critical information in a short amount of time will help mitigate hazards. As a Zone 3 hazmat provide, Hazmat 361 will be a part of any large hazmat responses in the zone. The drone program can be used on a variety of calls anywhere within the zone.

   We have chosen the specific drone model for several reasons. Autel Robotics is a local company based out of Bothell, WA. Customer support will be greatly increased. They have a drone model that is made in the USA with a thermal imaging camera made by FLIR in the USA. Over the last decade, increased scrutiny has been placed on the most popular drone manufactures such as DJI, as well as other manufactures of critical components that are made in China. Many of these manufactures have been place on restrictive lists, and may have limitations based on the manufacture alone. There are other drones for less money, but we believe the most prudent investment is to purchase a drone that meets our needs and avoids any current or future limitations.

   This proposal is for (2) drones, based on best practices and real life experiences. Creating a drone program with just a single drone could still be successful in mitigating the hazards to the public. We believe this proposal is in the best interest of the public and the UTC Grade Crossing Protective Fund.