

Staff Report

Measure A Citizens' Oversight Committee



Item Title	Agenda Date:
Funding to Initiate a Chula Vista Fuels Reduction/Mitigation Crew	April 13, 2023

Department: Fire

Recommended Action

Citizens' Oversight Committee to support using Fire Department fund balance for a 3-Year Fuels Crew Pilot Program.

Discussion

BACKGROUND

The City of Chula Vista has many amenities to offer its citizens. In particular, residents have access to more than 30 undeveloped open space areas, 65+ parks, and other preserves that maintain the region's natural vegetation. Open Space areas provide the public with active and passive recreational opportunities, scenic enhancement along landscaped parkways, and buffer zones to protect public and private lands. These areas provide the community access to the natural beauty of the land and observe its undisturbed resources and wildlife. In these areas threat of vegetation fires are significant in what is commonly referred to as the wildland-urban interface (WUI). Throughout the United States and specifically, here in California, the WUI is a common hazard with a standard set of mitigations to maintain the land in its natural state and reduce the risk to the public. There are approximately 40 open spaces that are owned by the City of Chula Vista which creates a WUI threat to the public.

As the City continues to grow, so does the threat of the WUI. Over the past three years, there has been an average of a 32% increase each year in vegetation fires in the City of Chula Vista. A variety of factors contribute to these fires and now is the time to implement proactive measures to combat these trends and minimize the threat. With the proper resources, the Fire Department can better control these environments by removing hazardous fuels and creating access for fire suppression activities. Proactive efforts will lead to smaller fires, provide safer environments for citizens and reduce the number of department resources required to manage vegetation fires. These outcomes will then allow fire companies more capacity to respond to the ever-increasing 911 call volume in the city.

The Fire Department is recommending the establishment of a 'Fuels Crew' pilot program as a proactive measure and the correct resource to mitigate this hazard. By industry standards, a fuels crew is a group

of personnel that specializes in vegetation fuel management related to vegetation fire hazards and risks. Fuels crews generally have 10 members who focus on implementing fuel treatments in a variety of fuel types. They help reduce fuel availability and promote healthy landscapes by thinning/clearing vegetation.

As a pilot, the fuels crew program can be conducted and assessed for effectiveness and sustainability without the commitment of permanent personnel or equipment acquisition. The Fire Department is recommending this program be funded for three years starting in Fiscal Year 2024; however, an annual evaluation will be conducted to verify outcomes and financial efficacy.

DISCUSSION

Under the guidance and management of the Chula Vista Fire Department, the fuels crew would be trained to perform a variety of work related to vegetation management, fuel reduction, and/or treatments which will lead to more favorable outcomes in the event of a fire. Major areas of work or objectives would include vegetation management, hazard mitigation, and indirect fire suppression activities. The Public Works Department is responsible for these open spaces and therefore would have coordination and approval authority for work conducted on these City-owned assets. This program would also provide a career pathway into the fire and emergency response services with the intent to recruit and hire from the City of Chula Vista. Crews like this have a proven track record for providing a gateway to career positions throughout the state. The Fire Department currently has two employees that were members of fuels crews prior to being hired by the City.

Vegetation management includes the thinning or clearing of vegetation and flammable fuels in areas of the city considered to be a public safety threat or in areas posing access issues for fire suppression resources. Hazard mitigation would include the removal of fire hazards in high-risk areas in the city. Common examples of fire hazards are flammable materials within unsheltered persons' encampments and illegal dumping on city property. Indirect fire suppression activities include fire break line construction, defensive/protective operations, and post-fire containment and mop-up. These activities would take place within the city limits and in our mutual threat zone areas to the south (San Diego City), east (San Diego County & Bonita), and north (Bonita & National City).

Staffing

Staffing for a fuels crew would include two sworn fire suppression positions to supervise and oversee administrative duties and day-to-day operations. These positions would be filled with currently funded FTE positions; and any necessary backfilling of positions would be accomplished using overtime to allow this program to expand, and contract based on Fire Department needs. It is important to have suppression personnel in this capacity to provide experience-based direction related to implementing fuel/hazard mitigation efforts. They also play a critical role in the guidance, training, and mentoring of the crew members pursuing careers in fire and emergency response services.

The remaining eight (8) members of the fuels crew will be tasked to perform the hands-on work assignments. These would be seasonal or limited-term positions that would be non-safety and start at an entry-level pay scale with benefits. The number of seasonal/limited-term positions is also flexible, allowing this program to be scalable based on funding and department priorities.

Training

The fuels crew would work four days per week, 10 hours per day. During these work hours, they will be trained for and perform work assignments intended to achieve goals related to reducing the risk to the public from vegetation fires. Training for these day-to-day operations would include the use of vegetation-clearing hand/power tools and the operation of equipment such as skid steer tractors and commercial chippers.

On their one weekday off (Monday or Friday), they will have access to additional training programs that will prepare them for the next step toward their career goals. Coursework for a National Wildfire Coordinating Group (NWCG) Firefighter Type 2 qualification and Emergency Medical Technician license would include:

- Firefighter Type 2 Coursework
 - NWCG S-130; Basic Wildland Firefighter Training
 - NWCG S-190; Introduction to Wildland Fire Behavior Training
 - NWCG L-180; Human Factors in the Wildland Fire Service
 - ICS 100; Introduction to the Incident Command System
- Emergency Medical Technician Coursework
 - CVFD EMT Preparation Course
 - CVFD CPR Certification Course
 - CVFD EMT Course
 - CVFD National Registry Preparation Course

Additional training will be provided dependent on the needs of the fuels crew personnel. Returning crew members from season to season will require progressive training to build their capabilities which will translate into increased qualifications and equate to being more marketable and becoming more competitive for better jobs. This additional coursework would include but not be limited to:

- Firefighter Type 1 Coursework
 - NWCG S-131; Firefighter Type 1 Training
 - NWCG RT-130; Wildland Firefighter Safety Annual Refresher Training
 - NWCG S-211; Portable Pumps and Water Use
 - NWCG S-212; Wildland Fire Chain Saw Use and Maintenance
 - NWCG S-219; Firing Operations

Equipment

A fuels crew will require personnel protective equipment (PPE), hand/power tools, equipment, and transportation. PPE would include helmets, ear, and eye protection as well as a uniform with the appropriate footwear. Hand and power tools acquired and used day to day would be similar to those used by firefighting hand crews. Providing the Fuel Crews members with the appropriate resources allows the crew members to achieve identified tasks. Furthermore, experience gained in this work environment provides crew members with highly desirable job skills.

Maintaining scalability, equipment and transportation vehicles will be rented or leased to expand and contract with staffing and work assignments. This will allow for startup costs to be minimized and the ability to adjust to the specific needs of each project being worked on. Equipment needs are expected to include the rental of skid steer tractors, commercial chippers, and dump trailers. Transportation will take several four-door heavy-duty style trucks. Fire Department vehicles will be used as much as possible, but either short-term rentals or leases will be used to bridge any gaps for crew transportation.

Outcomes

Expected outcomes from a Chula Vista Fire Department Fuels Crew Program would include vegetation management on city-owned land, fire hazard material removal, keeping vegetation fires to a smaller size reducing suppression crews' time on task, and career development for those interested in fire and emergency response services. The City is responsible for approximately 40 different open spaces which total 10,480 acres. Of these spaces, 1,159 acres are classified as a WUI threat requiring fuel reduction mitigation efforts to reduce the risk. With over 1,000 acres identified as needing attention, a single fuels crew will not be the sole answer to mitigating the WUI threat. However, this type of program would provide a consistent approach to better managing our open spaces and protecting the community.

Currently, the Fire Department Emergency Management division and Public Works Open Space division is coordinating a fuels mitigation and reduction effort in 6 of the 40 open spaces described above. These 6 areas require approximately 160 acres of fuel reduction and are being funded through a FEMA grant award of \$3.2 million which includes a City share of \$800,000. This work is being completed by a contractor for approximately \$19,000 per acre cleared. In 2017, a similar effort was completed in Rice Canyon by a contractor for \$12,500 per acre, also funded by a federal grant program. This is a viable solution to reduce the WUI risk within the City, but as previously described this work is only accomplished when a grant award is received.

Current-Year Fiscal Impact

The proposed Fire Department Fuels Crew would require funding for 2 supervisors, 8 crew members, training, equipment, and a contracted on-call biologist. They would be able to operate approximately 6-9 months out of the year due to wildlife and staffing constraints. Specifically, endangered wildlife in these areas are protected by multiple species conservation plans/programs (MSCPs). These MSCPs restrict vegetation management activities between September and February. With an on-call biologist, these months of operation can be extended with an assessment completed verifying it would be safe to perform fuel reduction activities in certain areas.

A fuels crew as described, is estimated to cost \$750,256 for 9 months (FY 2024) of operation and be capable of clearing approximately 1 acre per day or 150 acres per year. This would equate to a cost of less than \$5,000 per acre. This capability would clear all 1,159 acres identified as a WUI threat every 8 years. As with any program, the Fire Department will utilize opportunities to increase capabilities and reduce or offset costs. Examples of opportunities other Fire Department Fuels Crews capitalize on are:

- Grant Programs
- Contracting as an Available by Hire (ABH)
 - Private property owners
 - Utility Companies
 - Cal Fire
- Deploying to Large Wildland Fires

Utilizing a Chula Vista Fire Department Fuels Crew in similar ways would decrease the dependence on Measure A funding and/or increase the size of the fuels crew and therefore increase the outcomes.

Personnel Services			
Position	Seasonal Positions	Cost Per Position	Total Budgetary Impact
Fire Captain (Supervisor)	2	\$ 129,928.02	\$ 259,856.04
Fuels Crew Member	8	\$ 41,920.00	\$ 335,360.00
Total Personnel Services			\$ 595,216.04
Support Services			
Tools & Personal Protective Equipment			
Description	Qty	Cost	Total Cost
Hand Tools	1	\$ 10,000.00	\$ 10,000.00
Power Tools	1	\$ 10,000.00	\$ 10,000.00
Uniforms	8	\$ 1,000.00	\$ 8,000.00
PPE	8	\$ 1,000.00	\$ 8,000.00
Total			\$ 36,000.00
Contracted/Leasing Services			
Description	Qty	Cost	Total Cost
On-Call Biologist	30	\$ 1,000.00	\$ 30,000.00
Skid Steer	20	\$ 400.00	\$ 8,000.00
Chipper	20	\$ 350.00	\$ 7,000.00
Trailer(s)	20	\$ 250.00	\$ 5,000.00
Truck(s)	4	\$ 1,500.00	\$ 6,000.00
Portable Toilet	1	\$ 20,000.00	\$ 20,000.00
Total			\$ 76,000.00
Training Expenses			
Description	Qty	Cost	Total Cost
Personnel	36	\$ 640.00	\$ 23,040.00
Materials	1	\$ 20,000.00	\$ 20,000.00
Total			\$ 43,040.00
Support Services Total			\$ 155,040.00
Total Budgetary Impact			\$ 750,256.04

Ongoing Fiscal Impact

Ongoing costs moving forward would be approximately \$775,000 for 9 months of operational costs in FY 2025 and FY 2026. The Fire Department will return to the Measure A COC for necessary adjustments exceeding the requested amount if cost increases are experienced.

Attachments

n/a

Staff Contact

Harry Muns, Fire Chief