

# Issue Analysis Form



**Date:** December 19, 2018  
Authorization to Advertise  
Budget Amendment /  
Appropriation of Debt  
Proceeds to the Capital  
Projects Fund (Related to  
2019 General Obligation  
Bond Issuance)

**Item:**

**Lead Department(s):** County Finance / Fire & EMS

**Contact Person(s):** Betsy Drewry; Brad Owens

## Description and Current Status

Multiple capital projects with planned debt issuance were recommended as part of the adopted FY2019 budget. One such project was replacement of Fire & EMS **Self-Contained Breathing Apparatus** with an **estimated cost of \$1,482,000** at the time of budget adoption.

Fire & EMS has worked to finalize a review of the apparatus needs and cost. The equipment will be purchased using HGAC Contract pricing. The cost of the equipment recommended for purchase is **\$1,377,521**. Pricing details are shown as **Attachment A**. There are additional SCBA Workgroup Summaries attached for board member information as follows:

**Attachment B** – SCBA Workgroup Executive Summary

**Attachment C** – SCBA Workgroup Compressors Cascade Executive Summary

**Attachment D** – SCBA Compressor Evaluations

Because the total cost exceeds \$1,160,804, 1% of the adopted FY2019 budget (\$116,080,356), a public hearing is required. The Code of Virginia §15.2-2507 requires a public hearing for budget amendments exceeding 1% of the adopted fiscal plan.

A **draft** of the advertisement is attached that will be placed for the public hearing. This draft is provided for your review as to format (**Attachment E**).

### Board Action Requested for December 11:

- Grant authority to advertisement a public hearing for budget amendment – A draft resolution is attached for board consideration

If approved, the public hearing will be conducted on January 8, 2019. Following the public hearing, on January 8, staff will request approval of:

- Budget Amendment & Appropriation
- Award of Contract for Purchase
- Reimbursement Resolution (to allow purchase in advance of Spring 2019 bond

issuance)

- |  |   |  |
|--|---|--|
| Does this require IDA action?                                      | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No |
| Does this require BZA action?                                      | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No |
| Does This require Planning Commission Action?                      | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No |
| Does this require Board of Supervisors action?                     | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            |
| Does this require a public hearing?                                | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            |
| If so, before what date? [at least 7 days prior to public hearing] | <input type="checkbox"/> Yes            | <input type="checkbox"/> No            |

### Fiscal Impact Statement

Approval of this project and related budget amendment will not create the need to increase the County's tax rates.

### County Impact

Approval of the public hearing and subsequent approval of the funding of this project will provide updated apparatus necessary to perform life-saving rescues, save citizen property and protect the environment. The equipment was last completely updated in 2005.

### Notes

**Witmer Public Safety Group**

104 Independence Way  
Coatesville, PA 19320

Phone: (800) 852-6088  
Fax: (888) 335-9800

Quote ID: 365465  
Date: 12/3/2018  
Sales Person: PAUL H

**Proposal To:**

Prince George County Fire & EMS  
6602 Courts Drive, 2nd Floor  
P.O. Box 68  
Prince George, VA 23875  
Phone: (804) 722-8614  
Fax: (804) 733-2769

Proposal ID 365465  
Date 12/3/2018  
Sales Person PAUL H

Quantity	Item ID	Description	Unit	Amount
<b>MSA SCBA - HGAC Contract</b>				
1.00		SCBA: G1 SCBA, 45 minute service life, 4500 PSI cylinder pressure rating, Carbon cylinder, w/facepiece NFPA 2013 Standard	1,171,520.00	1,171,520.00
TOTAL of 160 UNITS \$7322 EACH = \$1,171,520				
99.00		SPARE FACEPIECES: MSA G1 Facepiece Assembly for Fire Service Medium Hycar - Medium Nosecup 4 Point Adjustable Speed On Harness Cloth Neckstrap	351.00	34,749.00
142.00		SPARE CYLINDERS: MSA G1 SCBA Cylinder H-45LP Super Lite Carbon Fiber Cylinder 4500 PSI - 45 Minute Rating	1,206.00	171,252.00
1.00	TRADE-IN	TRADE-IN: Trade-in of all existing SCBA, Cylinders & Facepieces and receive the following products for the trade-in value: - -		
1.00		Stallion SAT-20 Air Trailer		
103.00		MSA G1 Facepiece Assembly for Fire Service Medium Hycar - Medium Nosecup 4 Point Adjustable Speed On Harness Cloth Neckstrap		
18.00		MSA G1 SCBA Cylinder H-60 Super Lite Carbon Fiber Cylinder 4500 PSI - 60 Minute Rating		
160.00		EEG MSA G1 Cylinder Band Clamp Decal		
320.00		EEG SCBA Cylinder Reflective Wrap Decal, 2" x 22" Style H45 Cylinder		

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Date 12/3/2018  
Sales Person PAUL H

Quantity	Item ID	Description	Unit	Amount
<b>MSA SCBA - HGAC Contract</b>				
10.00		MSA G1 Rechargeable Battery Charging Station, 6 Bank		
60.00		MSA G1 Rechargeable Battery Pack Assembly		
2.00		MSA M7/G1 Accountability Tag		
1.00		MSA G1 Accountability Tag Read/Writer		
1.00		OHD #9519-4000 Quantifit Respirator Fit Testing System to Include Windows Quantifit Software, Roller Case, Keyboard, Trigger Button, Triple Tubing, USB Cable, and Power Supply.		
1.00		OHD #9513-0130 Quantifit Single Screw-in Demand Valve,		
1.00		MSA G1 Facepiece APR Adapter Kit		
1.00		Quantifit Control Center w/carrying case		
1.00		MSA #10169715 G1 RIT Bag Kit Complete with the Following: 4500 psi RIT SCBA, 6' Quick Fill URC Hose and Extendaire II Breather Connection. Note: Configuration is Less Cylinder.		
11.00		MSA G1 2nd Stage Regulator Conversion Kit for MSA Rescue Aire II RIT SCBA		
12.00		True North L3 Lite Speed RIT Bag, Red		
5.00		Stallion #SACF2G2 Stationary 2-Position Containment Fill Station with 3-Bank Air Control Panel - Installed		
11.00		Used 6000 PSI Cascade Cylinder With CGA-702 Valve, This Cylinder Has A 5-Year Hydrostatic Test Cycle.		
1.00		Used Spacesaver II Fill Station w/Control Panel for Rescue 1		
1.00	HGAC	Thank you for allowing us to work thru HGAC		

**ACCEPTANCE OF PROPOSAL**

The above prices, specifications, and conditions  
are satisfactory and are hereby accepted.

Signature \_\_\_\_\_

Proposal is valid until January 02, 2019

Date \_\_\_\_\_

Subtotal 1,377,521.00

Tax 0.00

Total 1,377,521.00



**OfficerStore**



**theEMSstore**



**GIDEON  
TACTICAL**

***PRINCE GEORGE COUNTY FIRE, EMS, AND EMERGENCY MANAGEMENT***

**SELF-CONTAINED BREATHING APPARATUS REPLACEMENT WORK GROUP**

***Executive Summary***

***SCBA Replacement***

**Prepared for**

**Director of Fire, EMS, and Emergency Management**

**James B. Owens**

**Prepared by**

**Logistics Division Captain**

**Kenneth A. Williams**

**On Behalf of the SCBA Work Group Members  
Representing Each Fire/EMS Company and Career Personnel**

## PRINCE GEORGE COUNTY FIRE, EMS, AND EMERGENCY MANAGEMENT SELF-CONTAINED BREATHING APPARATUS REPLACEMENT WORK GROUP

### Executive Summary

The Self-Contained Breathing Apparatus (SCBA) Workgroup first met on March 1, 2018; prior requests had been made for representation from all volunteer Fire and EMS companies and career staff to attend on the specified date and time. Director Owens discussed the overall reason for the Work Group and tasked us to review, test, and evaluate various SCBAs for potential replacement systemwide. Following test and evaluation the Work Group was directed to forward a recommendation to Fire and EMS Director Owens.

The SCBA Work Group held a second meeting on March 29, 2018 and each month thereafter. The Work Group decided to conduct test and evaluations (T&E) of SCBA offerings from three manufactures; Honeywell, Scott, and MSA. In addition, the Work Group developed a standardized evaluation form to be used by Fire/EMS volunteer and career personnel who choose to participate in the T&E process.

SCBA Vendors were contacted and each met with the Work Group on separate evenings to discuss and provide a training session regarding their product. Each vendor also provided a minimum of seven complete units for T&E by personnel of Prince George County Fire & EMS. Members of the Work Group were to take the test units back to their respective Fire/EMS company, provide operating instruction to company personnel, and request that evaluation forms be completed by those choosing to participate in the T&E process. The T&E SCBAs were made available at each Fire/EMS station for no less than 20-days to afford all personnel, volunteer and career, ample time to handle the product and perform test and evaluation.

On September 27, 2018 the SCBA Work Group met and received a report on the results of the Test and Evaluation process and final average from the evaluation forms. The results are as follows;

- |                                      |   |
|--------------------------------------|---|
| 1. MSA – 4.784 (Total average).      | Question; ...recommend purchase 17 yes – 2 no |
| 2. Honeywell – 4.33 (Total average). | Question; ...recommend purchase 9 yes – 3 no  |
| 3. Scott – 4.169 (Total average).    | Question; ...recommend purchase 8 yes – 10 no |

It should also be noted that while all vendors (sales and manufacturer representatives) were responsive to questions from the Work Group there was a notable difference in communication beyond just questions. The vendor representing **MSA** was in continuous contact by telephone and email asking if we had questions, needed additional information, and offering himself to meet with individuals or the group as needed. The vendor representing Scott was second in communication and Honeywell third with very minimal communication outside of questions asked of him.

**Based on overall results of Test and Evaluation on Self-Contained Breathing Apparatus from the three manufacturers noted in this summary the SCBA Work Group recommends that MSA be chosen as a systemwide replacement for Prince George County Fire, EMS, and Emergency Management. MSA also participates in several standing contracts (including but not limited to the HGAC Contract) from which price negotiations and purchase can be completed.**

Additional benefits of the MSA Self Contained Breathing Apparatus;

- 15-year warranty on mechanical parts
- 15-year warranty on electronics
- Repairs completed within 48 hours of equipment arrival in Pennsylvania repair facility
- Loaner SCBA available if needed
- Annual testing and service completed on-site at each station or as otherwise requested

The SCBA Work Group also recommends, at minimum, purchase of the following options;

1. Adjustable lumbar support
2. Buddy-Breathing system
3. Chest strap
4. Individually issued face masks as deemed appropriate
5. Mask strap
6. 45-minute air cylinders
7. One spare air cylinder per SCBA (for a total of two cylinders with each SCBA)
8. Rechargeable battery packs
9. One gang type battery pack charger for each station
10. Extra batteries (enough to fill the gang charger at each station) to enable rotation of batteries for increased longevity
11. Netting type attachment to secure mask to user's head
12. Voice amplifiers for each face mask

***PRINCE GEORGE COUNTY FIRE, EMS, AND EMERGENCY MANAGEMENT***

**SELF-CONTAINED BREATHING APPARATUS REPLACEMENT WORK GROUP**

***Executive Summary***

***County-Wide SCBA Refill Capability and Recommendation***

**Prepared for**

**Director of Fire, EMS, and Emergency Management**

**James B. Owens**

**Prepared by**

**Logistics Division Captain**

**Kenneth A. Williams**

**On Behalf of the SCBA Work Group Members  
Representing Each Fire/EMS Company and Career Personnel**



**PRINCE GEORGE COUNTY FIRE, EMS, AND EMERGENCY MANAGEMENT**  
**SELF-CONTAINED BREATHING APPARATUS REPLACEMENT WORK GROUP**  
**COMPRESSOR/CASCADE SYSTEM REVIEW AND RECOMMENDATION**

**Executive Summary**

The Self-Contained Breathing Apparatus (SCBA) Workgroup first met on March 1, 2018; prior requests had been made for representation from all volunteer Fire and EMS companies and career staff to attend on the specified date and time. Director Owens discussed the overall reason for the Work Group and tasked us to review, test, and evaluate various SCBAs for potential replacement systemwide. In October 2018 Director Owens requested the Work Group again meet for review and to make recommendations regarding the SCBA refill capabilities throughout the County.

October 2018 a telephone interview was conducted with Tom Barber, Safe Air Systems, (company that has conducted annual inspection and maintenance of our current compressors). Tom provided a brief verbal summary regarding age and status of the compressor systems currently in use at *Company 1, Company 2, Company 3, and Company 5*. Safe Air does not inspect in-station cascade systems. Furthermore, he had no documentation as to the status of the cascade cylinders used in conjunction with any of the compressor systems.

In October 2018 contact was made with Paul Hartsoe, Sales Rep, (Witmer Public Safety Group, Inc) with whom Prince George will be negotiating SCBA replacement with their MSA product. Paul was asked to conduct a Countywide assessment of all Breathing Air Refill Systems currently in use (compressors and cascade systems). Paul coordinated with Gary Williams, Stallion Air, Inc., to conduct the assessment.

On October 25, 2018 Gary Williams visited *Company 1, Company 2, Company 3, and Company 4, and Company 5* where he examined SCBA refill equipment and capabilities. His report was submitted via email from Paul hartsoe on October 26, 2018, Gary's report is included as an additional attachment with this Executive Summary.

On November 1, 2018 the report was emailed to all members of the SCBA Work Group and a meeting date was announced for November 8, 2018 to discuss both the report and a recommendation to be submitted to the Director of Fire and EMS.

**The Work Group recommendation is as follows;**

**Company 1**      Maintain mobile air capability.  
Complete the upgrades noted in the evaluation report. Upgrades are necessary for personnel safety and compliance with NFPA 1901.  
Continue annual inspection and service.

**Company 2**      Maintain mobile air capability.  
Continue annual inspection and service.

- Company 3** Currently the mobile air system on Rescue 3 is out of service. Due to age, capacity, and configuration of the compressor system and apparatus it is not recommended to perform any work or service on this mobile air compressor system.  
Rescue 3 (apparatus) is slated for replacement, mobile air decision should be made at that time.  
Install a \*4 or 6 Cylinder in-station cascade system capable of filling new SCBA cylinders.
- Company 4** Complete the upgrades noted in the evaluation report. Upgrades are necessary for personnel safety and compliance with NFPA 1901.  
Install a \*4 or 6 Cylinder in-station cascade system capable of filling new SCBA cylinders utilizing as many usable components as possible from the current system.
- Company 5** Complete the upgrades noted in the evaluation report. Upgrades are necessary for personnel safety and compliance with NFPA 1901.  
Upgrade the current in-station cascade system utilizing the 4 Cylinders that are already on hand in the station.
- Station 6** Space is extremely limited at Station 6. Coordinate with vendor to determine if there is any possible location for an in-station cascade system (possible addition of outside shed).  
If space is identified a 4 Cylinder in-station cascade system is recommended.
- Company 7** Install \*4 or 6 Cylinder in-station Cascade system capable of filling new SCBA cylinders.  
This system should be funded through the station's construction budget.
- Station 8** Install \*4 or 6 Cylinder in-station Cascade system capable of filling new SCBA cylinders.
- County-Wide** Spec and purchase a mobile air unit, either vehicle or trailer, to be maintained by Logistics Division. (Type, size, capacity, and configuration to be determined)  
Mobile Air Unit could be housed at the proposed training center facility for training use.  
Logistics would be responsible for deployment to incident scenes.  
Logistics would be responsible for scheduling in-station cascade system fills utilizing a pre-determined schedule and/or as requested.  
Logistics could deliver and pick-up the mobile air unit for various stations to utilize during company training or to complete their own cascade system re-fills if so requested.

\*Per Gary Williams, Stallion Air, cascade system capacity is estimated as follows;

- 4-Cylinder System = approximately 26 fills
- 6-Cylinder System = approximately 46 fills

*End of Summary*

## **Evaluation Report of Existing Compressor/Cascade Systems**

**From:** Gary Williams, Stallion Air  
**Date:** October 26, 2018  
**Subject:** Prince George County Visit

### Station 1

- Compressor package is of most current design and has low hours. Equivalent replacement cost of a new compressor package, in today's market, would be approximately \$26,000.00.
- The wall mounted, NYAD brand, CO monitor is obsolete. If it requires replacing in the future it could cost approximately \$3500.00.
- (4) ASME storage vessels. Of current design. Equivalent replacement cost of a new storage system, in today's market, would be approximately \$14,000.00.
- Eagle brand, Cobra model, 2 position fill station with a 4 bank air control panel. This fill station does not conform to any NFPA 1901 standards. This fill station was manufactured prior to the NFPA even having any standards that related to fill stations. It is dangerous. Equivalent replacement cost of a new fill station with a 4 bank panel, in today's market, would be approximately \$12,000.00.

### Station 2

- I did not look at this system. Stallion Air currently services this unit and is aware of its history.
- The Eagle Compressor package has low hours. The compressor block, outfitted in this machine, was discontinued a few years ago. If the compressor block were to need replacement parts in the future, they may be hard to find. . Equivalent replacement cost of a new compressor package, in today's market, would be approximately \$35,000.00.
- (4) ASME storage vessels. Of current design. Equivalent replacement cost of a new storage system, in today's market, would be approximately \$14,000.00.
- Fill station is of current design for filling 4500 psi cylinders.

### Station 3

- I performed a minor field test on the unit. When the compressor attempts to start the generator will fault out for "high speed", and disengage. I think this is a generator problem instead of a compressor problem. If it were a compressor issue it should trip the breaker because of a high amp draw.

While observing the generators meters, at start up, I noticed that the hertz meter would wander from 58-62 hertz, for no apparent reason. It should stay at 60 hertz, under normal conditions.

- The compressor package is an Eagle brand with a Bauer compressor block installed in it. (Bauer model K15). Your K15 block was manufactured in 1989. It is only rated for 5000 lbs. and the K15 was discontinued circa 2001'. This compressor package is outfitted with an Entertron brand control board and a Vorne brand scrolling display. Both of these items are obsolete and are not supported anymore. The Mechanical Separator chamber, mounted on the front of the machine is made of aluminum. There was a technical safety bulletin distributed by Eagle Compressors circa 1998' that noted that this particular chamber was subject to rupturing and needed to be replaced. A replacement chamber would cost approximately \$1400.00, in today's market.
- Eagle brand 2 position frag tube with a 4 bank air control panel. This frag tube does not conform to any NFPA 1901 standards.
- (2) 6000 psi DOT vessel storage system. These vessels can still be used but they are currently out of hydro.
- In my opinion, I don't think there is enough space on this vehicle to properly mount and upgrade the appropriate equipment that would be necessary to create a NFPA 1901 compliant compressor/cascade system.

#### Station 4

- (5) 4500 psi DOT vessels with an adjustable regulator assembly and a Mako brand single position fill station.
- All of the DOT vessels are 12 years out of hydro inspection.
- The regulator assembly could still be used if necessary.
- The fill station is still a viable piece of equipment for filling 4500 psi SCBA vessels but it is an incomplete system. If an SCBA were to rupture in this fill station, as it sits directly on the floor, it would launch it across the room. It is supposed to be outfitted with a riser underneath it to allow for air expansion during the rupture process. This riser can be purchased if requested. \$400.00ish.

#### Station 5

- Compressor package is of most current design and has low hours. Equivalent replacement cost of a new compressor package, in today's market, would be approximately \$26,000.00.
- (4) 6000 psi DOT vessels with an adjustable regulator assembly and a single position frag tube. This frag tube does not conform to any NFPA 1901 standards. Only (1) of the 6000 psi DOT vessels is active. (3) of the 6000 psi DOT vessels are in-active.

COUNTY OF PRINCE GEORGE  
NOTICE OF PUBLIC HEARING  
PROPOSED AMENDMENT TO FY19 BUDGET

Notice is hereby given pursuant to § 15.2-2507, Code of Virginia (1950, as amended), that the Prince George County Board of Supervisors will conduct a public hearing for the purpose of receiving comments on a proposed amendment to the FY2018-19 Prince George County Annual Fiscal Plan (the "Budget") during its regular meeting of Tuesday, **January 8, 2019**, beginning at 7:30 p.m., in the Boardroom of the County Administration Building, Third Floor, 6602 Courts Drive, Prince George, Virginia. All interested citizens are invited to attend and participate in the public hearing.

The current FY2018-19 budget is \$116,080,356. The proposed budget amendment would add up to \$1,380,000 to the FY2018-19 budget to fund completion of the following capital improvement project:

- (i) Replacement of Self-Contained Breathing Apparatus for Fire/EMS

A copy of materials related to the proposed budget amendment can be examined in the County Administration Department of the County Administration Building. The building is open from Monday - Friday, 8:30 AM - 5:00 PM. Any person requiring assistance to participate in the public hearing is asked to contact Teresa Knott at 722-8600 prior to the public hearing so that appropriate arrangements can be made.

By Authority of  
Percy C. Ashcraft, County Administrator  
COUNTY OF PRINCE GEORGE

Board of Supervisors  
County of Prince George, Virginia

Resolution

At a regular meeting of the Board of Supervisors of the County of Prince George held in the Boardroom, Third Floor, County Administration Building, 6602 Courts Drive, Prince George, Virginia this 19<sup>th</sup> day of December, 2018:

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Present:

Alan R. Carmichael, Chairman  
Donald R. Hunter, Vice-Chairman  
Floyd M. Brown, Jr.  
Marlene J. Waymack  
T. J. Webb

Vote:

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On motion of \_\_\_\_\_, seconded by \_\_\_\_\_, which carried unanimously, the following Resolution was adopted:

RESOLUTION; AUTHORITY TO ADVERTISE A PUBLIC HEARING FOR THE APPROPRIATION OF UP TO \$1,380,000 IN DEBT PROCEEDS TO THE CAPITAL PROJECTS FUND (BUDGET AMENDMENT).

NOW, THEREFORE, BE IT RESOLVED That the Board of Supervisors of the County of Prince George this 19<sup>th</sup> day of December, 2018, does hereby authorize the advertisement of a public hearing for the appropriation of up to \$1,380,000 in debt proceeds to the Capital Projects Fund.

A Copy Teste:

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Percy C. Ashcraft  
County Administrator