

**ROSS VALLEY FIRE DEPARTMENT  
STAFF REPORT**

For the meeting of: November 12, 2014

To: Board of Directors

From: Mark Mills, Fire Chief *MM*

Subject: Physical Fitness

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**RECOMMENDATION:**

That the Board receives and files the report.

**BACKGROUND:**

In an effort to improve physical fitness and reduce injuries the Department implemented a health and wellness program that contained the following components:

- Complete Blood Profile
- Lifestyle questionnaire
- Resting Blood pressure
- Body composition (Skinfold analysis & Bio Electrical Impedance)
- MAX VO2 EKG treadmill exercise test
- Respiratory assessment (VC & FEV1)
- Hamstring and lower back flexibility assessment
- Grip strength
- Two minute abdominal curls
- Maximum push-ups
- Vertical jump
- Pull Ups
- Physical performance standards score
- Physical fitness age scores
- Health age scores
- Computerized reports and personal consultation

**DISCUSSION:**

The following physiological parameters have a high statistical correlation (utilizing criterion-related validity tests) when compared with actual firefighter job performance. Thus, the combination of these physiological parameters is used to calculate a Physical Performance Score.

Max VO2 Consumption- (predicted from a sub-maximal treadmill test)

AGENDA ITEM # 4  
Date 11/12/14

Body Composition Analysis- Lean Body Weight & Body Fat % (skinfolds & Bio Electrical Impedance)  
Grip Strength (upper body strength)  
Vertical Jump (lower body power)  
Abdominal Curls (muscle endurance)  
Maximum Push-ups  
Maximum Pull-Ups

The Physical Performance Score ranges between 900-2100 with the ideal score set at 1500. Recommendations for improvement were provided for firefighters who were deficient (below the ideal values for a firefighter) in selective parameters. Improvement in the deficient area(s) will result in an increase in the Physical Performance Score next year.

Overall, the Ross Valley Fire Department (RVFD) had an average score of 1538, which is slightly above the ideal range for the entire Department, but short of the average of 1547 for all departments participating. The intent of the program is to improve overall wellness and prevent injuries. Over 90% of the suppression staff participated (excluding injured employees). They embraced the program and are benefitting from the information and recommended exercise routines.

There were several firefighters that had exceptional results. One firefighter had the highest recorded score in 25 years, for all departments tested. There was one firefighter that had the highest score in the female category and one firefighter had the highest score in the over 50 category.

#### **FISCAL IMPACT:**

None