OREGON MILITARY DEPARTMENT

2013 Joint Ways and Means

Public Safety Sub-Committee Presentation-Phase 1

Raymond F. Rees
Major General
The Adjutant General

Presentation Outline

- Agency mission, goals, historical perspective
- Programs
- Agency organization
- Performance Measures
- Major budget drivers and environmental factors
- Major changes in past 10 years
- Cost containment/program delivery improvements
- Major budgetary issues

Presentation Outline (continued)

- Actions taken on HB 2020, HB 4131 (employee to supervisor ratio)
- Secretary of State Audits
- Position reclassifications/ New hires
- Proposed Legislation
- Proposed Information Technology/ Capital Construction projects

Mission

The Oregon Military Department will plan, prepare, and provide for the prevention, mitigation, and management of emergencies or disasters that present a threat to the lives and property of citizens of and visitors to the State of Oregon.

The Oregon National Guard will provide the citizens of the State of Oregon and the United States with a ready force of citizen soldiers and airmen, equipped and trained to respond to any contingency, natural or man-made.

When we are needed, we are there.

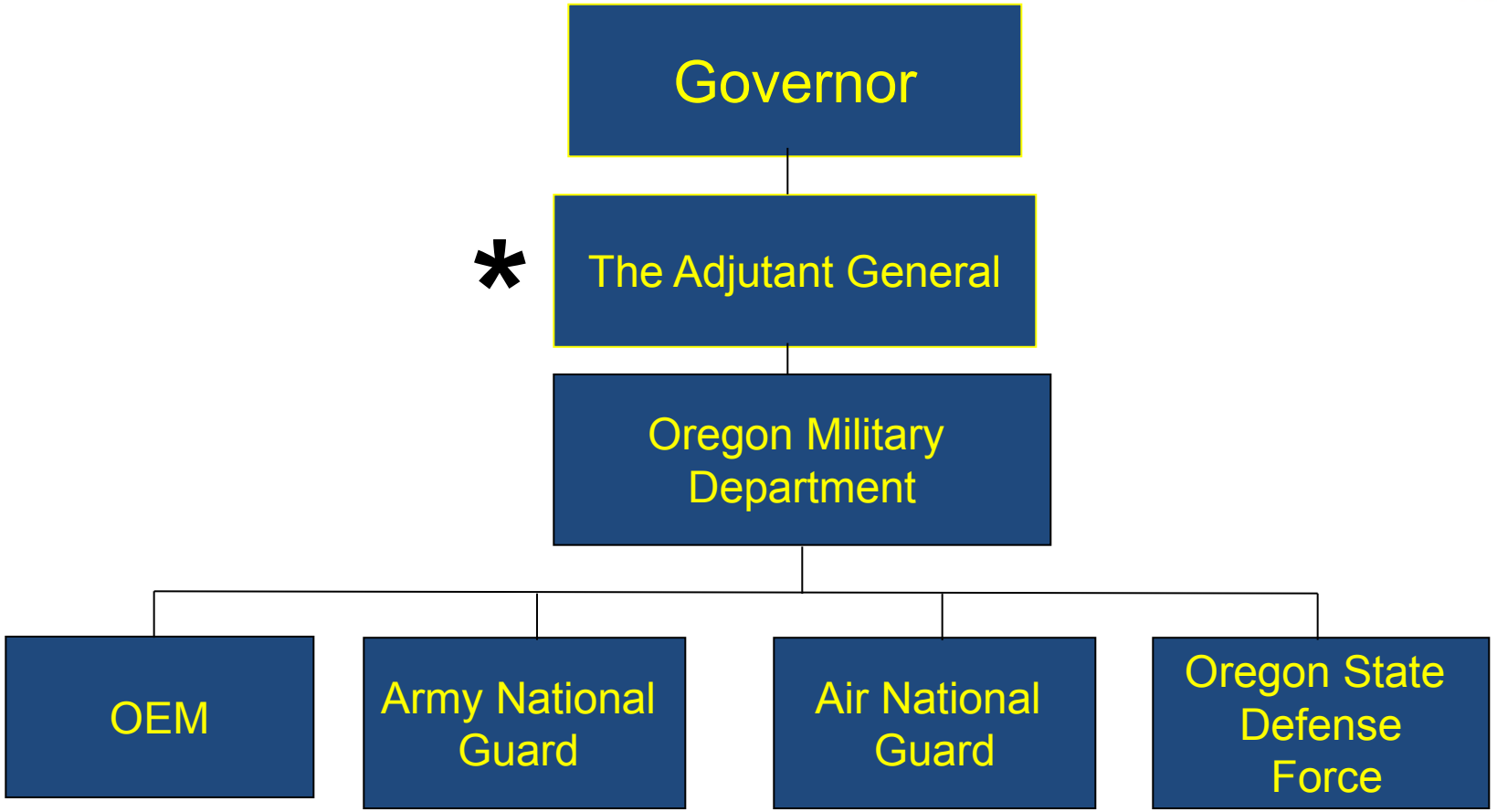
Goals

- Assure a ready trained force to serve
  - The Governor during state emergencies and
  - The President of the U.S. as a reserve force for the U.S. Air Force and Army.

- Maintain adequate facilities to
  - House National Guard soldiers, airmen and their equipment;
  - Provide a place for drills and training; and
  - Provide emergency shelters/centers for local communities.

- Enhance community support and readiness for emergency response and recovery.

Oregon's Military Structure



* Homeland Security Advisor

Historical Perspective

1843 – First Organized Militia - response to Whitman Massacre
1859 – Oregon Constitution established the Militia

<u>Federal deployments:</u>

- 1898 Spanish American War
- 1916 Mexican Punitive Expedition
- 1918 World War I
- 1940-45 World War II
- 1950-51 Korea
- 1991 Desert Storm
- 1996 Bosnia
- 2001 to present – Global War on Terror

<u>Major state responses:</u>

- 1942, 1964, 1996, 2007 floods
- 1948 to present - Wildfire suppression
- 2005 - Hurricanes Katrina and Rita, Louisiana
- 2007 - Winter Storm (Vernonia)
- 2008 – January Detroit/Idanha Snow – July California Fires – December Arctic Blast
- 2011 – Floods in Harney County

OREGON NATIONAL GUARD FACILITY LOCATIONS

Unit Training Areas Air National Guard Installations Army National Guard Armories

Oregon Army National Guard

Strength: 6,366

82nd Brigade (Troop Command)

- 3rd Battalion, 116 Armor Regiment
- 1-82 Cavalry Squadron
- 641 Medical Battalion (includes Army aviation)
- 741 Corps Support Battalion
- 82 Rear Tactical Operations Center

41st Infantry Brigade Combat Team

- 2-162 Infantry
- 1-186 Infantry
- 2-218 Field Artillery
- 141st Brigade Support Battalion
- 1-82nd Cavalry

Joint Force Headquarters

- Judge Advocate General
- 234 Army Band
- 102 Civil Support Team
- Recruiting
- Medical Command
- Regional Training Center

Oregon Army National Guard

Oregon Army National Guard Aviation Assets

CH-47 Chinook

UH-60 Blackhawk

UH-72 Lakota (replaces OH-58)

Oregon Air National Guard

Strength: 2,216

142 Fighter Wing, Portland ANG Base

- Aerospace Control Alert (ACA) Mission
- State funding for Maintenance and Ops 80%/20%

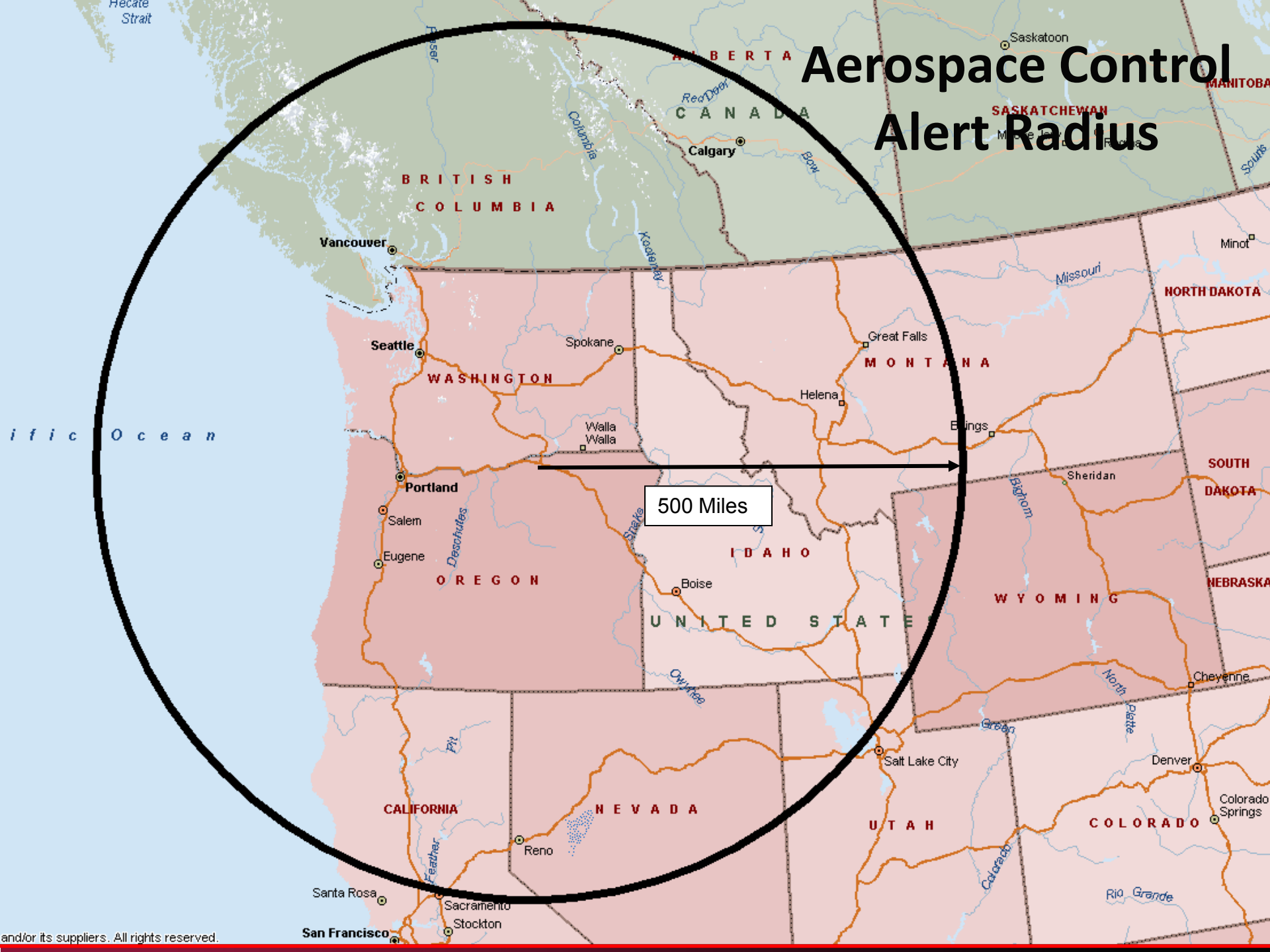
173 Fighter Wing, Kingsley ANG Base

- Sole F-15 Flying Training Unit (FTU) in USAF
- One of the largest employers in Klamath County
- State funding for Maintenance and Ops 85%/15%

State Combat Operations Group (COG)

- 125 Special Tactics Squadron
- 116 Air Control Squadron

Aerospace Control Alert Radius

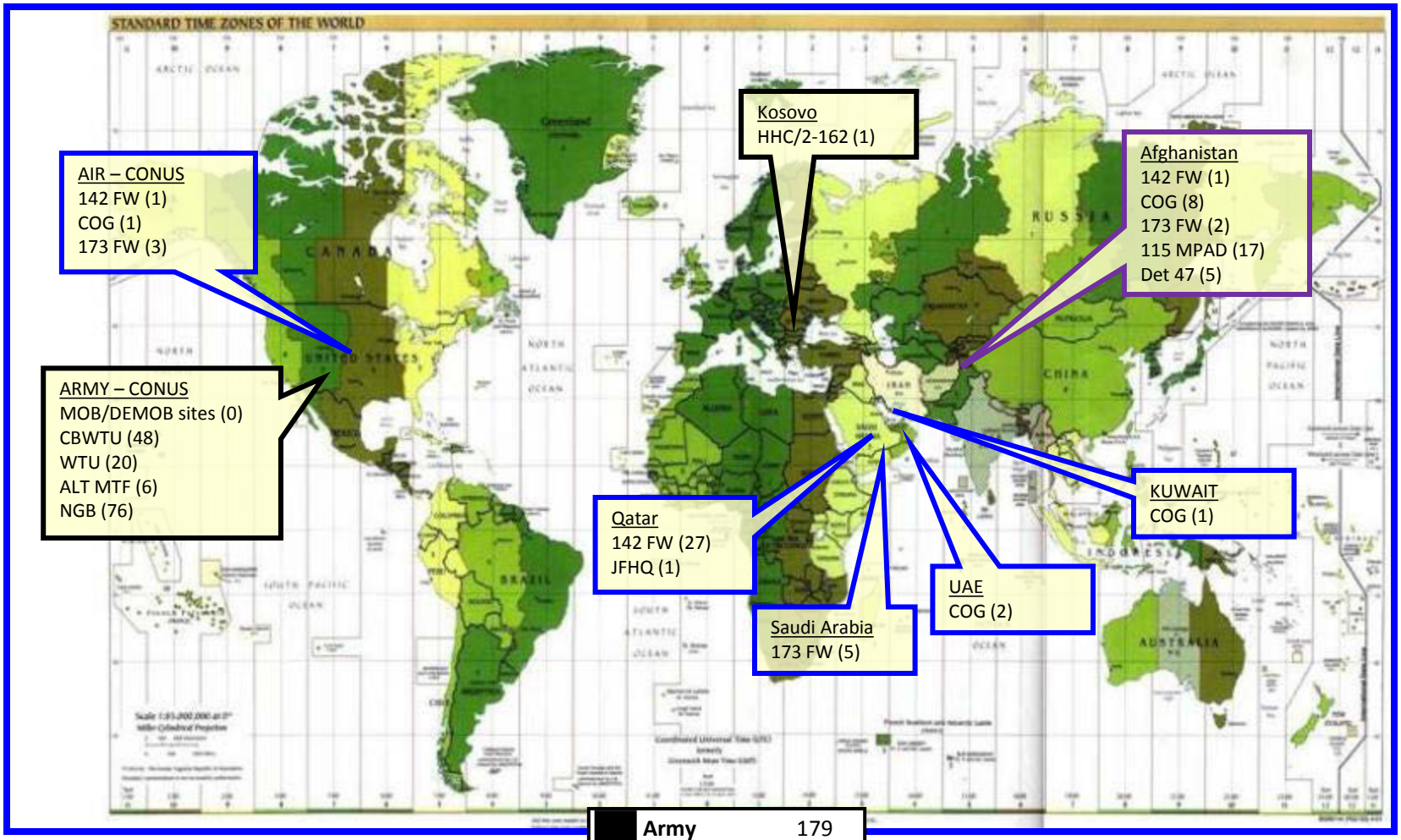


Oregon Air National Guard

F-15 Fighter jet

Operations / Deployments

As of 18 March 2013



2012 Year in Review Video

2013-15
Oregon Military Department
Major Program Areas

Administration Program

- Command Group
- Financial Administration
- State Personnel
- Reintegration
- Emergency Fin. Assist. Program
- Education & Training
- Public Affairs
- State Defense Force

Operations Program

- Army Guard Operations
- Air Guard Operations
- Electronic Security
- Equipment Refurbishment
- Telecommunications
- Distance Learning

Capital Improvement

Capital Construction

Emergency Management Program

- OEM Administration
- 9-1-1
- Domestic Preparedness
- Disasters
- Seismic Rehabilitation Program

Community Support Program

- STARBASE
- Youth Challenge Program
- Emergency Operations

Debt Service

Administration Program

- ✓ Command Group
- ✓ Financial Administration
- ✓ State Personnel
- ✓ Reintegration
- ✓ Emergency Financial Assistance Program
- ✓ Education and Training
- ✓ Public Affairs Office
- ✓ State Defense Force

Operations Program

Army National Guard

- ✓ Operations and Maintenance
- ✓ Construction
- ✓ Counterdrug
- ✓ Environmental
- ✓ Camp Rilea Dining
- ✓ Camp Rilea Billeting
- ✓ Electronic Security Systems
- ✓ Equipment Refurbishment
- ✓ Distance Learning
- ✓ Telecommunications
- ✓ Anti-Terrorism Program

Operations Program (Continued)

Air National Guard

- ✓ Air Guard Administration – Salem JFHQ
- ✓ Civil Engineering Program - Portland Air Base/Kingsley Field
- ✓ Security - Portland Air Base/ Kingsley Field
- ✓ Fire Protection Program - Portland Air Base/Kingsley Field
- ✓ Environmental - Portland Air Base/ Kingsley Field
- ✓ Kingsley Field Billeting Program

Operations Program (continued)

New facilities

41 Infantry Division AFRC – Clackamas, OR
Dedicated September 2011

COL James W. Nesmith Readiness Center - Dallas, OR
Dedicated October 2012

Fort Dalles Readiness Center

Emergency Management Program

- ✓ Emergency Management Administration
- ✓ 9-1-1 Program
- ✓ Domestic Preparedness Program
- ✓ Disasters Program
- ✓ Seismic Rehabilitation Program

Community Support Program

- ✓ STARBASE
- ✓ Youth Challenge Program
- ✓ Emergency Operations
- ✓ Camp Rosenbaum (federal)
- ✓ Innovative Readiness Training (federal)

Youth Challenge Program

Emergency Operations

Firehawk - Barry Point Fire, Lake County, Aug 2012

Other Programs

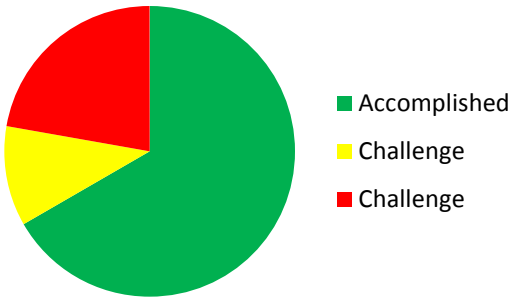
- ✓ Debt Service
- ✓ Capital Improvements
- ✓ Capital Construction

Performance Measures

(See Exhibit A for 2012 Annual Performance Progress Report)

Agency Performance Measure Graph

2012 APPR



Data presented is from 2011 Federal Fiscal Year

Status	Status Description	Performance Measures
GREEN (Accomplished)	Within 5% of approved target	KPM #2 Armory Condition KPM #4 Equipment Availability KPM #6 Reintegration KPM #7 Emergency Ops Plans KPM #8 Hazard Mitigation Plans KPM #9 Customer Service
YELLOW (Challenge, but making progress)	Within 6%-15% of approved target	KPM #1 Recruiting
RED (Challenge)	Greater than 15% from approved target	KPM #3 Revenue Generation KPM #5 Youth Challenge

Performance Measures
Goals Accomplished

(See Exhibit A for 2012 Annual Performance Progress Report)

- KPM #2 – Armory Condition
  - Goal – 50%
  - Actual – 81%

- KPM #4 – Equipment Availability
  - Goal – 65%
  - Actual – 115%

- KPM #6 – Reintegration
  - Goal – 100%
  - Actual – 100%

- KPM #7 – Emergency Operations Plans
  - Goal – 100%
  - Actual – 100%

- KPM #8 – Hazard Mitigation Plans
  - Goal – 85%
  - Actual – 82%

- KPM #9 – Customer Service
  - Goal – 55%
  - Actual – 71% (Overall Customers Satisfaction)

The Military Department did not seek modifications to any of these measures in its self-assessment and detailed analysis provided to LFO/CFO on March 18th.

Performance Measures Challenges

(See Exhibit A for 2012 Annual Performance Progress Report)

- KPM #1 – Recruiting and Retention
  - Goal – 100%
  - Actual – 93%

- KPM #3 – Revenue Generation
  - Goal – 60%
  - Actual – 26%

- KPM #5 – Youth Challenge Program
  - Goal – 75%
  - Actual – 28%

The Military Department sought modifications to KPM #3 and #5 in its self-assessment and detailed analysis provided to LFO/CFO on March 18th.

Major Budget Drivers and Environmental Factors

- Federal Sequester / Continuing Resolution
- Leverage Federal Funds with General/Other Funds
- Reduced Federal grant awards from US Dept of Homeland Security (OEM)
- Deferred Maintenance - $79 million
- Budget cuts from 2011 – 15 fewer maintenance positions
- Limited Information Technology infrastructure
- Limited space for female cadets at YCP

Major changes in past 10 years

- Deployments – over 15,000 individuals since 2003
- Acquisition of Office of Emergency Management in 2007
- Increase in square footage (857,000 sq ft, 23% increase)
- Net Zero initiative (began April 2011)
- Umatilla Chemical Depot Caretaker Contract (began July 2012)
- Armory Service Life Extension Projects (5 completed since 2007)
  - Gresham
  - St Helens
  - Hood River
  - Woodburn
  - Newport (Milton-Freewater ASLEP underway)

ASLEP PROJECTS COMPLETED

Gresham Armory: $3.2 M COP

ASLEP PROJECTS COMPLETED

St Helens Armory: $2.5 M COP

ASLEP PROJECTS COMPLETED

Hood River Armory: $233K FF (ARRA), $1 M State Stimulus

ASLEP PROJECTS COMPLETED

Woodburn Armory: $275K COP

ASLEP PROJECTS COMPLETED

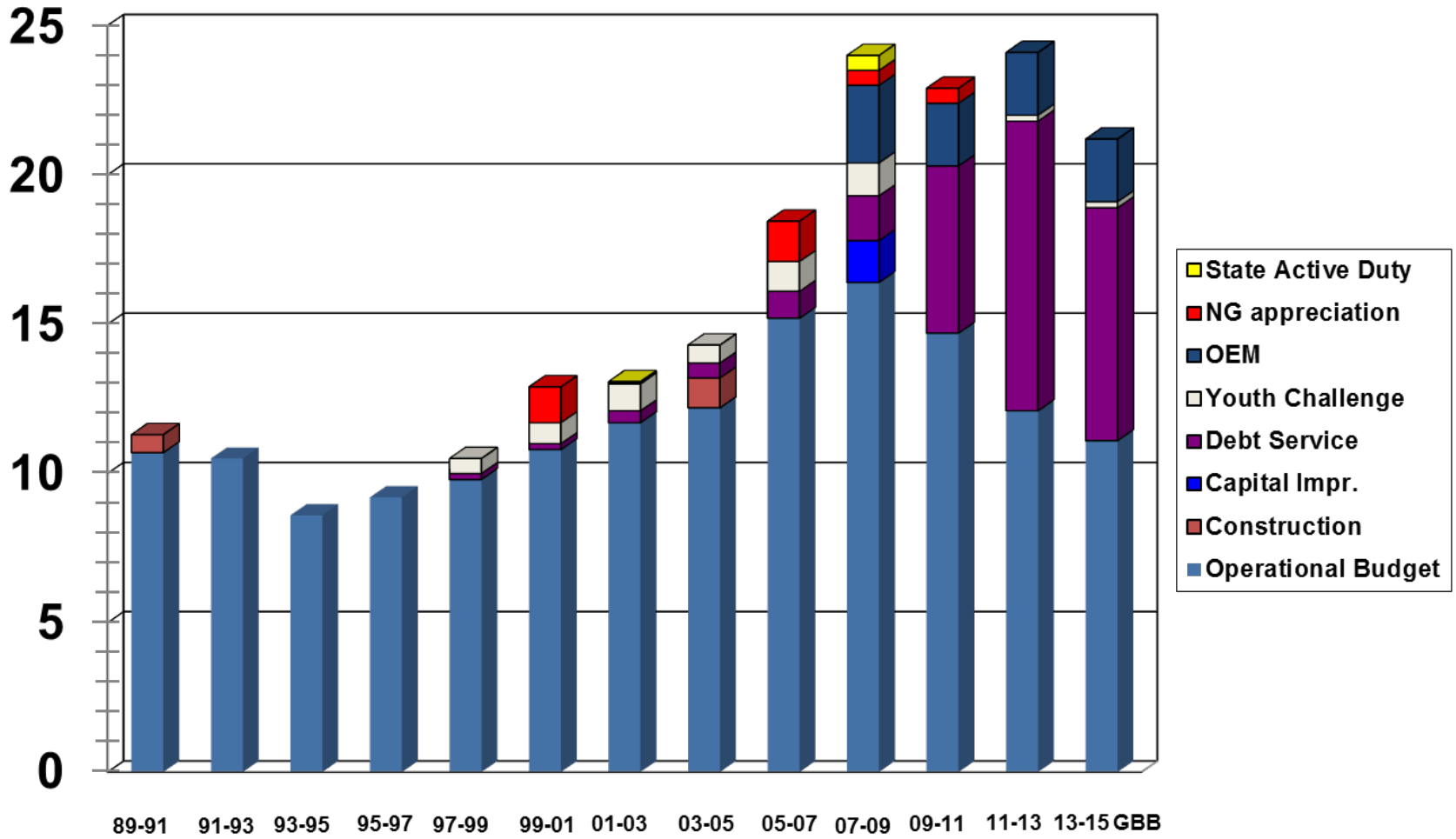
Newport Armory: $336K COP

Major changes in past 10 years (continued)

- **2009-11 Budget Reductions ($3.7 million GF)**
  - Abolished 7 positions: $818,000 GF
  - Fund shifted position costs: $1.1 million GF to OF & FF
  - $536,000 GF pay freeze, furloughs
  - $1.3 million GF Services & Supplies reduction

- **2011-13 Budget Reductions ($5.8 million GF)**
  - Abolished 62 positions: $3.1 million GF
  - Fund shifted position costs: $1.0 million GF to OF & FF
  - $1.0 million GF Services & Supplies reduction
  - $560,000 GF furloughs, no COLA
  - $121,000 Vacancy savings

24 year General Fund history 1989 – 2013 (in millions)



Cost containment, program delivery improvements

- Net Zero projects (solar, wave energy) – see Exhibit B for quarterly newsletters
- LEED certifications on new facilities
- Energy Savings Performance Contract
- Grant process streamlining at OEM

Major budgetary issues

- Extension of 9-1-1 Tax (sunsets January 1, 2014)
- General Fund for facility maintenance on new facilities
- General Fund to match Federal Fund at the two airbases
- Transfer of Seismic Rehabilitation Program to Oregon Business Development Department
- Umatilla Caretaker Contract
- Capital construction Other Funds limitation (XI-Q bonds) for 3 Armory Service Life Extension Projects: Sharff Hall (Portland), Roseburg, Grants Pass.

Actions taken on employee to supervisor ratio

- Researching consolidating sections under fewer supervisors
- Considering changes to 10 supervisory positions:
  - Reclassifying 7 positions to non-supervisory status
  - Abolishing 2 supervisory positions in GBB (1 in CSEPP, 1 in Wildland Fire)
  - Leaving 1 supervisory position vacant while looking at options
- NOTE: Difficult to apply HB 2020 (2011) and HB 4131 (2012) to OMD.
  - The agency has federal employees and active duty soldiers who work for state supervisors.
  - Conversely, there are a few state employees who work for federal supervisors.
  - Federal employees and supervisors are not included in the ratio calculation done by DAS.

Secretary of State Audits issued in past 3 years

- 10 audit reports received since March 2009 - refer to Exhibit C for details.

- No reports from OMD under HB 3291.
  - HB 3291 applies to performance and program audits (not financial).
  - One was received by OMD after Jan. 1, 2012 (effective date of HB 3291), but had no findings for OMD.

- YCP: 14 audits (financial & performance)

- 22 audits from USPFO Internal Review (federal)
  - Required to audit each cooperative agreement every 3 years.

Position reclassifications and New Hires during 2011-13

- No reclassifications have been completed in 2011-13
- 93 New Hires – see Exhibit D for details

Proposed Legislation

- Please refer to Exhibit E in presentation binder for a list of legislation affecting the agency.

Proposed
Capital Construction Projects

Armory Service Life Extension Projects	Cost and funding source
Sharff Hall (Portland) – acquisition from Army Reserve and remodel	$2,781,000 XI-Q bonds
Grants Pass Armory	$2,391,660 XI-Q bonds
Roseburg Armory	$2,230,416 XI Q bonds
Total XI-Q bonds	$7,403,076

Other Capital Construction items	Cost and funding source
Limitation to complete purchase of 2,296 acres at Christmas Valley, OR	$220,000 Other Funds (developers)
Planning/Pre-Design for 2015-17 projects	$282,445 OF (Capital Construction Other Funds cash account), $262,205 Federal Funds
Grand total Capital Construction for 2013-15	**$7,905,521 OF, $262,205 FF**

ASLEP PROJECTS PROPOSED

Sharff Hall

ASLEP PROJECTS PROPOSED

Roseburg Armory

Round 2 Bid Documents from the Governor's 10-year planning process

- Please refer to Exhibit F in presentation binder

Proposed IT Project

- Business Case for Next Generation 9-1-1 Technology
- Contracted Vendor:
  - L.R. Kimball
- Identifies issues with the current 9-1-1 system
- Addresses the topic of consolidation
- Recommends a solution for a transition to Next Generation 9-1-1
- Modification to form 107BF14
- Refer to Exhibit G for PowerPoint slides presented to Senate Committee on Veterans and Emergency Preparedness on March 21, 2013

Questions?

MILITARY DEPARTMENT, STATE of OREGON

Annual Performance Progress Report (APPR) for Fiscal Year (2011-2012)

Original Submission Date: 2012

Finalize Date: 1/10/2013

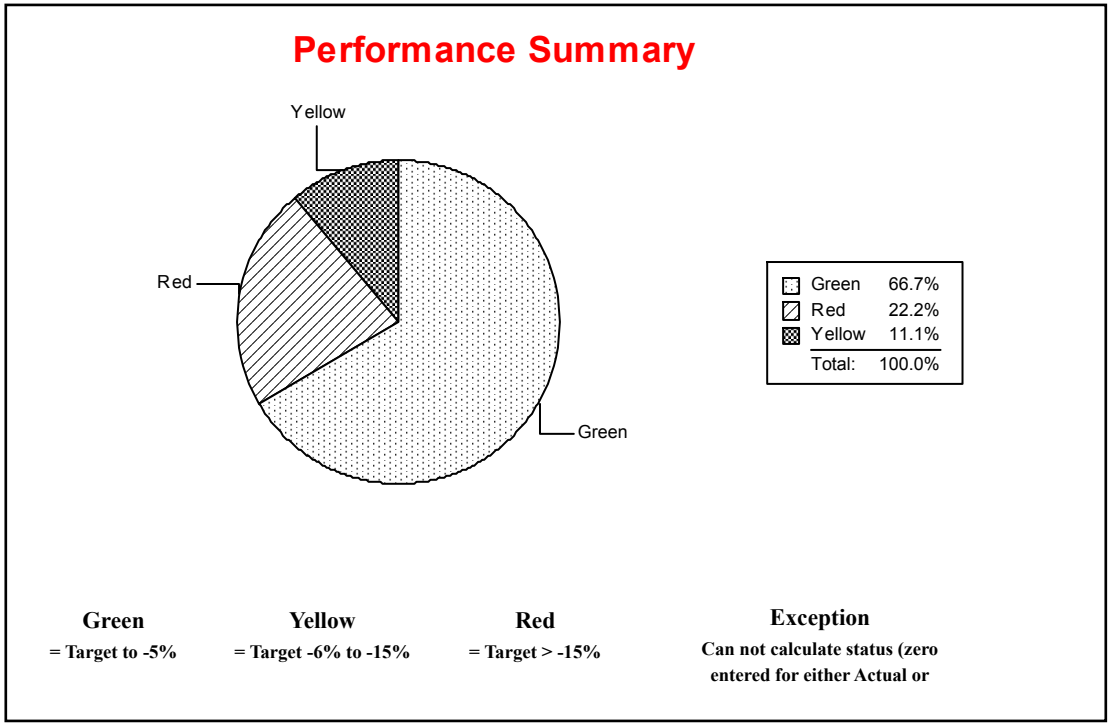
2011-2012 KPM #	2011-2012 Approved Key Performance Measures (KPMs)
1	RECRUITING - Percent of soldiers and airmen recruited vs. recruiting goal.
2	ARMORY CONDITION - Percent of statewide armories in adequate or better condition.
3	REVENUE GENERATION - Percent of available armory time rented.
4	EQUIPMENT AVAILABILITY - Percent of equipment on hand in Oregon vs. equipment authorized.
5	YOUTH CHALLENGE - Percent of 17-18 year olds completing GED or HS diploma at graduation.
6	REINTEGRATION - Percent of members successfully referred for reintegration services.
7	DOMESTIC PREPAREDNESS PLANS - Percentage of counties with National Incident Management System (NIMS) compliant Emergency Operations Plans (EOPS).
8	HAZARD MITIGATION PLANS - Percentage of state population covered by a FEMA approved local hazard mitigation plan.
9	CUSTOMER SATISFACTION - Percent of customers rating their satisfaction with Military Department customer service as "good" or "excellent": overall customer service, timeliness, accuracy, helpfulness, expertise and availability of information.

New Delete	Proposed Key Performance Measures (KPM's) for Biennium 2013-2015
	Title: **Rationale:**

MILITARY DEPARTMENT, STATE of OREGON	I. EXECUTIVE SUMMARY

Agency Mission: The Oregon National Guard will provide the citizens of the State of Oregon and the United States with a ready force of citizens soldiers and airmen, equipped and trained to respond to any contingency, natural or manmade.

Contact:	Sean McCormick	**Contact Phone:**	503-584-3601
Alternate:	Debbie Stratman	**Alternate Phone:**	503-584-3873



1. SCOPE OF REPORT

The Oregon Military Department offers performance measures, developed to gauge progress toward achieving the agency goal of responding to state emergencies, linked to, and impacting the agency's mission. Central emphasis on providing a rapid and effective force in responding to state emergencies rests with being able to recruit new members into the Oregon National Guard to assure force strength. Critical to the success of the organization is the maintenance of the armories throughout the state. This assures a fully prepared assembly place for soldiers and their equipment. It also provides a physical gathering center for communities affected by disaster or threats. 40 armories are located in 37 cities around the state, and serve as vital components in Oregon's emergency

preparedness and Homeland Security efforts. The Office of Emergency Management was transferred to Oregon Military Department from Oregon State Police by the 2007 Legislature. Two performance measures within this report evaluate progress in assisting city and county governments with emergency preparedness and hazard mitigation planning. Also offered is one performance measure to gauge the progress of the Oregon Youth Challenge Program (OYCP). Although not linked to the agency mission, it links to the National Guard Bureau's Youth Challenge mission statement. Oregon Youth Challenge targets Oregon's at-risk youth, ages 16 to 18, who have dropped out or were failing in the traditional high school setting. In addition, a performance measure to gauge the percent of service men and women successfully referred for reintegration services has been added, along with a measure which gauges the percentage of equipment on hand vs. levels authorized by the National Guard Bureau. The final performance measure is a customer service survey which gauges the percent of customers rating their satisfaction in six different categories as good or excellent. This multifaceted measure allowed survey respondents to choose the Oregon National Guard, Oregon Military Department or The Office of Emergency Management individually or rate all three sections if they choose.

2. THE OREGON CONTEXT

The Oregon National Guard is a ready force to support the Governor during unrest or natural disaster and as a reserve force to the United States Air Force and the United States Army. Assure a Ready Trained Force for Rapid Response to Statewide Emergencies; and Enhance Community Support and Readiness for Emergency Response: These strategic goals of the Oregon Military Department are at the heart of the agency's core state mission. The Oregon Military Department offers key performance measures aligned with two goals (ready-trained force and community support) and the mission statement. No primary Oregon benchmark linkages are associated with these two goals. The Office of Emergency Management performance measures are primarily linked to Oregon Benchmark 67, Emergency Preparedness. Actions the Oregon National Guard, Oregon Military Department and the Office of Emergency Management must take in achieving these goals include: Continuing recruiting and retention efforts to assure force strength; Supporting our Guard families and assisting in their transitions back into the family and community folds after federal deployments; Managing and improving emergency coordination efforts through the agency's emergency operations center; Effectively partnering with Federal, State and Local Governments in securing funds and identifying emergency preparedness requirements; Strategically stationing its military units and equipment assets, and maintaining asset accountability; Supporting its volunteer organization - the Oregon State Defense Force; and Maintaining real property assets to a standard for assuring immediate emergency use of armories, buildings, and installations located in 27 counties throughout Oregon. The Military Support to Civil Authorities (MSCA) section of the Oregon National Guard performs as a conduit for the coordination in use of personnel and equipment assets and resources in times of crisis or emergency. At the State level, MSCA provides liaison to state and county officials, conducts and creates emergency plans and coordination, operates the Joint Operations Center (JOC) and identifies and mobilizes Oregon National Guard resources in response to emergencies. Nationally, MSCA provides linkage to the United States Northern Command (NORTHCOM), the National Guard Bureau, Regional State Partners, and Department of Homeland Security. MSCA remains able to expand in support of all incident areas. MSCA partners with many agencies and participates in various emergency councils including: Governors Security Council; State Interoperability Executive Council; Office of Emergency Management; Oregon Emergency Response System Council; Federal Emergency Management region 10; Oregon State Drought Council and Oregon Department of Forestry Incident Command System. MSCA and the Oregon National Guard's Civil Support Team participate in county and state emergency preparedness exercises to include: earthquake; flood; chemical and biological attacks; power outages and drought support. The Oregon Youth Challenge Program offers high school dropouts and students failing at traditional high schools the opportunity to build a future. Youth Challenge is Oregon’s only statewide public alternative high school. The Youth Challenge Program accepts students from all 36 counties in Oregon making the program

available to all dropouts and school districts with students who are failing academically. On an average per class, students attending the Challenge program come from 66 different high schools throughout the state with a GPA of 1.22 at the entrance to the program. 100% of the students who graduate earn either an accredited high school diploma, a General Education Diploma (GED), or Oregon certified high school credits to take back to their communities to re-enroll in high school. The Challenge program is certified by the Oregon Department of Education and is accredited by the Northwest Accreditation Commission. The work skills portion of the program involves training in conjunction with public works and community service projects for the U.S. Forest Service, Bureau of Land Management, Oregon Department of Fish and Wildlife, Oregon State Parks, Oregon Department of Transportation, and the Deschutes County Parks and Recreation Department. The students provide an average of 14,000 hours of volunteer community service per class. At minimum wage of $8.40 per hour this equates to $117,600 per class or $235,200 per year benefit to these agencies.

3. PERFORMANCE SUMMARY

Key Performance Measures (KPM) whose trends are upward and making progress are: KPM #2 (Armory Condition); KPM #4 (Equipment Availability); KPM #6 (Reintegration); KPM #7 (Domestic Preparedness Plans) and KPM #8 (Hazard Mitigation Plans) and KPM #09 (Customer Service). Key Performance Measures whose trends are uncertain or remains flat are KPM #1 (Recruiting). KPM whose trend is downward and not making progress is KPM #3 (Percent of available armory time rented) and KPM #5 (Youth Challenge Graduates);

4. CHALLENGES

Since the first muster of three militia regiments in Salem, Massachusetts, on December 13th, 1636, the National Guard has protected America at home and abroad. Nearly every generation in American history can attest to the significant contribution citizen-soldiers and subsequently airmen have made in defense of our freedoms and way of life. Long before September 11th, 2001, the Oregon National Guard, both at home and abroad, had served this great state and nation at unparalleled levels. In the near past, the Oregon National Guard contributed substantial forces, equipment and people to critical stabilization forces in Bosnia, peacekeeping forces in the Sinai, no-fly zone operations in Southern and Northern Watch, Operation Desert Storm, State to State partnerships, domestic emergencies, humanitarian operations in the aftermath of the devastating hurricanes on the gulf coast and numerous combat operations across the world. We are increasingly the man or woman the world sees in uniform. Today's Oregon National Guard deploys citizen-soldiers and airmen to dangerous and austere conditions in places like Afghanistan and Southwest Asia where we conduct ground, air and space combat operations in support of the Global War on Terrorism. Where this anti-terrorist effort goes the Oregon National Guard will go with it alongside our partners in the other Active and Reserve Components. For the past 376 years, the National Guard has been engaged in the business of securing the homeland and our roots are firmly established in the Homeland Security mission. The National Guard leads the Department of Defense efforts in providing force protection, critical infrastructure protection, border security, missile defense, intelligence, transportation, Weapons of Mass Destruction, communication support, as well as medical and air sovereignty capabilities. The Oregon National Guard is present for duty, bringing diverse skill, talent and capabilities to bear in an increasingly dangerous world. Oregon National Guard units under the control of their Governor and Adjutant General will be the first military responders on the scene. One of the most important lessons that Legislative leaders can take from the recent past and today is a fuller appreciation of the adaptability of the National Guard's three different duty statuses: State active duty as the state militia; our federal role as the National Guard of the United States in Title 10 status; and the federally funded and state-executed operations under

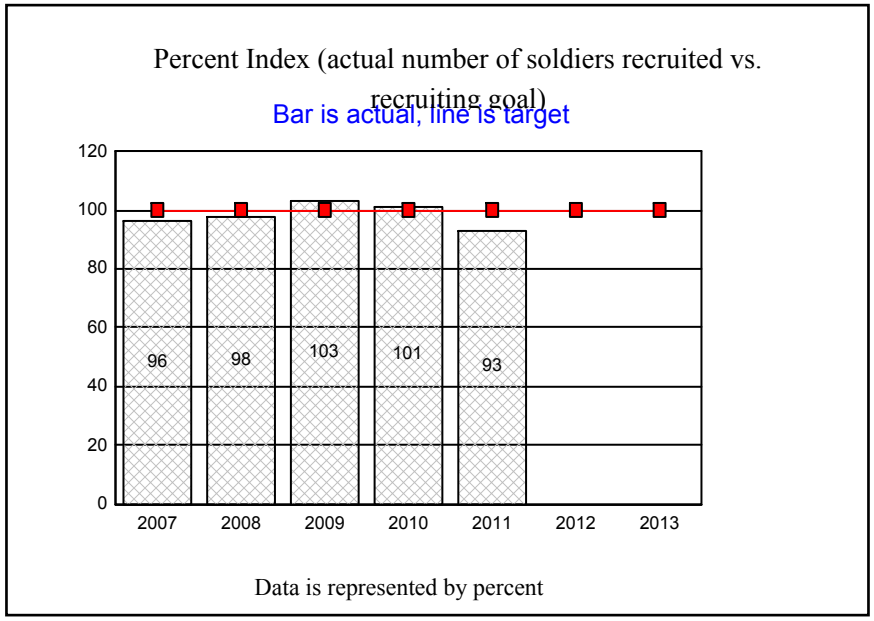
Title 32 as the National Guard of Oregon. This flexibility must be protected and well-resourced at all times. Increased frequency of mobilization is an issue. Constant and continued use of Oregon National Guard forces has changed the context of the term reserve duty. The manner in which personnel are accessed to duty, length of tours, and personnel programs all need to be examined in light of the new reality of military service. Most of the issues that surfaced following mobilization of National Guard personnel for Operations Noble Eagle and Enduring Freedom revolved around the disparity of benefits associated with different status of service. Those mobilized under USC Title 10 could claim protection under the Soldiers & Sailors Civil Relief Act, while those serving under USC Title 32 could not. Many factors influence the abilities of our forces to meet today's increasing demands. Infrastructure and facilities are increasingly important. Many Oregon National Guard facilities are well past their useful life. Inadequate facilities impact both the training and quality of life of our members as well as drain valuable resources. Our facilities have to reflect the developing roles and missions for increased Oregon National Guard participation in both global warfare and Homeland Security. We need to ensure decision-makers know and understand the value of our infrastructure for both homeland security and distributed wartime capability. Infrastructure includes maintaining and upgrading our information technology capabilities. Our nation's defense leaders have gone on record repeatedly stating that America cannot go to war without the National Guard. We take this responsibility for national security seriously, recognize it as one of the keys to our future as a relevant, reliable, and ready force that is transformed for the 21st Century. History demonstrates repeatedly, both the benefits and costs associated with inclusion or not of the National Guard in war fighting efforts. This means National Guard members must be prepared to fight in new combat environments that include high-technology systems, complex weapons and equipment. As major contributors to the force structure and capability of the US Army and US Air Force, the National Guard must be a full partner and integral part of any plan to transform our military services from the outset. Now, more than ever, the Oregon Army and Air National Guard are critical components of the Total Force and used in a much different manner than just 20 years ago. Operational tempos are using up equipment at a much greater pace than planned. For those legacy systems that cannot be replaced, we must re-capitalize them with technology infusion to preserve their combat capability and enhance our investment in these systems. The National Guard must be a full partner within all Services modernization plans. This relationship will allow the National Guard to provide the modern forces needed by combat commanders. The leadership in our Oregon National Guard is strong, our personnel ready, and our missions relevant. Whether at home or deployed, fighting the Global War on Terrorism or securing the safety of Oregonians through Homeland Security efforts, the Oregon National Guard is continually transforming. With proper resourcing of both people and equipment, we will always be there when our nation and state calls. The late Congressman Sonny Montgomery had repeatedly said, This nation would be nearly paralyzed by various crises if the Guard did not exist. We must ensure this never happens. Together we can lead our Oregon National Guard toward the future with determination and vision, but it must be one that is well-thought out, resourced, and maintains the relevance and the spirit of the National Guard and the citizen-soldier and airman.

5. RESOURCES AND EFFICIENCY

The Oregon National Guard is an organization of over 8,500 people who are our citizen soldiers and airmen, and civilian (federal and state) employees. 2,535 soldiers, airmen, and civilians work full-time for the Guard and the Oregon Military Department. The Oregon National Guard and the Oregon Military Department are supported primarily by Federal Funds. Close to 65% of total budgeted funds in fiscal year 2012 are Federal Funds, 6% comes to the Oregon Military Department as General Fund, and 29% is generated as Other Funds. The majority of our state employees are working in programs that exist through federal/state cooperative agreements, wherein the Military Department (acting on behalf of the State of Oregon) enters into contractual and grant supported relationships with the National Guard Bureau (serving on behalf) of the federal government. During fiscal year 2012 only 18 of OMD state employees are fully

supported by the state General Fund, and the remainder are either fully funded by federal dollars or by mixed funding of state and federal dollars.

KPM #1	RECRUITING - Percent of soldiers and airmen recruited vs. recruiting goal.	2003
Goal	Assure a ready trained force for rapid response to statewide emergencies.	
Oregon Context	Mission.	
Data Source	National Guard Bureau State Performance Indicator Reporting System (SPIRS).	
Owner	Recruiting and Retention Command. Agency PM Coordinator is Sean McCormick (503) 584-3601	



1. OUR STRATEGY

Attract and actively recruit those who would want to serve in the Oregon National Guard.

2. ABOUT THE TARGETS

The target for achieving 100% of the recruiting goal is established to assure force strength in the Oregon National Guard and nationally. An upward trend in recruiting is desired to ensure adequate force strength at both the state and federal level.

3. HOW WE ARE DOING

Recruiting goals have proven to be challenging during the past 11 years of conflict, but Oregon has enjoyed great success for a number of years. For Federal Fiscal Year 2011 the Oregon National Guard's recruiting target was 1,289 soldiers and airmen, our actual recruitments totaled 1,208. This equates to the Oregon National Guard meeting 93% of its combined target. .

4. HOW WE COMPARE

Nationwide, the National Guard Bureau reports meeting 92% of its combined recruiting goal for Army and Air National Guards. By meeting 93% of its combined goal, Oregon placed 30th out of 54 (states, territories, and the District of Columbia) in Army National Guard recruiting and 25th out of 54 (states, territories, and the District of Columbia) in Air National Guard recruiting.

5. FACTORS AFFECTING RESULTS

The Oregon Legislature has enacted several bills supporting troops, their families, and veterans. Legislative support has provided continuation of hunting and fishing license reimbursements for military members and recent retirees, modification to property tax exemptions for Guard members ordered to federal active duty, continuation of emergency relief assistance for Guard members and their families, delegation of parental powers by parents serving in active military service, an increase in the Oregon state tax deduction for military pay and exemption of Tri-Care health care expenses from federal taxable income for two years. Recruitment and retention bonuses coupled with programs to reward Guard members who sponsor new enlistees, additional recruiters and new marketing initiatives contributed to a highly successful recruiting year.

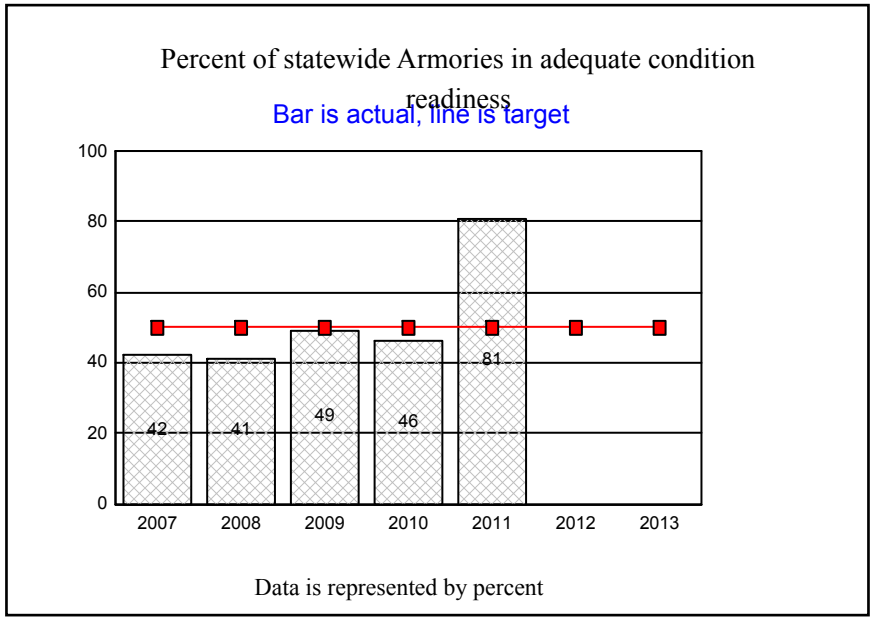
6. WHAT NEEDS TO BE DONE

Continued command emphasis and on-going assessments of what is working and redirecting efforts to mitigate what is not working. Legislative actions over the last 10 years have provided a significant support for current and former soldiers, airmen and their families, and this should continue. The recruiting goal needs to remain aggressive to drive efforts and emphasis toward assuring force strength.

7. ABOUT THE DATA

The reporting cycle is the federal fiscal year (October through September). This measured data with other extensive readiness reporting is compiled at the national level for further analysis, planning, and reporting. Oregon is able to compare its efforts against similar reporting entities and a national mean. http://www.oregon.gov/OMD/index.shtml is the Oregon Military Department website - selecting related sites will point to related national websites.

KPM #2	ARMORY CONDITION - Percent of statewide armories in adequate or better condition.	2003
Goal	Enhance community support and readiness for emergency response.	
Oregon Context	Mission.	
Data Source	U.S. Army Installations Status Report (ISR).	
Owner	Installations Division. Agency PM Coordinator is Sean McCormick (503) 584-3601	



1. OUR STRATEGY

Ensure armories throughout the state are capable to house military units and ready to serve communities during emergencies. Our ongoing mission is to replace or re-fit aging armories as rapidly as funding becomes available. Partners in this strategy include the National Guard Bureau, the Oregon State Legislature, the

Governor of the State of Oregon, City and County governments, Colleges and Universities, as well as engaged citizen groups.

2. ABOUT THE TARGETS

The targets were adjusted higher for years 2004 and 2005 in anticipation of increased state and federal funding. Increased funding did not materialize. Targets were adjusted back to a reasonable, yet aggressive 50%.

3. HOW WE ARE DOING

The federal fiscal year 2011 percentage of National Guard facilities in adequate or better condition reflects a significant increase over previous years. In part this is due to our state funded Armory Service Life Extension Program which was begun by Governor Kulongoski and funded by the Legislature. Additionally the Military Department has completed a number of federally funded capital improvement and capital construction projects, federally and state funded stimulus projects, as well as Legislatively approved COP funded projects. A series of deferred maintenance projects funded in the 2007-2009 budget have allowed for a temporary improvement in the conditions of some of our facilities. That being stated, budget reductions in the 2009-11 and 2011-13 budgets have resulted in the elimination of maintenance staff responsible for the upkeep of our facilities. The loss of these positions may result in facility conditions deteriorating while adding to the deferred maintenance deficit.

4. HOW WE COMPARE

The Oregon National Guard operates and maintains an inventory of facilities totaling 4,514,673 square feet. This is the fourth largest inventory by square footage within state government. Deferred maintenance needs have risen from approximately $5 million ten years go to approximately $79.6 million as of June 30th 2011.

5. FACTORS AFFECTING RESULTS

The maintenance and readiness of Oregon's armories are dependent upon funding. The 2007-2009 budget, and additional stimulus projects were instrumental in providing short term relief to deffered maintenance issues across our facilities. However budget reductions during the 2009-11 and 2011-13, which resulted in the loss of critical maintenance staff, and operational funding will lead to increased levels of deffered maitenance. The loss of staff and funding, as well as increases in utility rates may force the agency back into the mode of managing an ongoing decline of our facilities.

6. WHAT NEEDS TO BE DONE

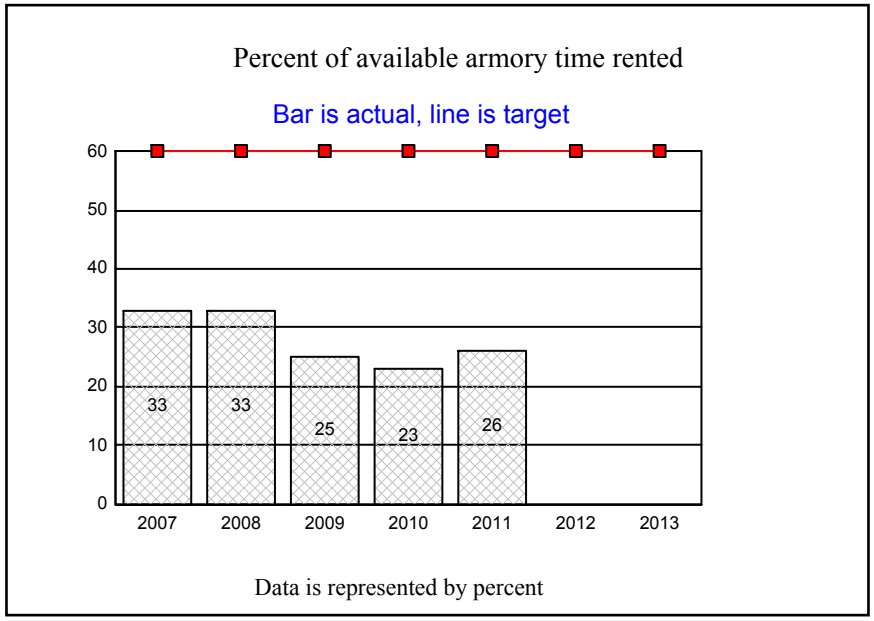
Previous increases in state funding have proven effective in helping to mitigate levels of defered maintenance. State funding of National Guard facilities is even

more critical due to political unrest at the federal level, and the ongoing concerns related to the potential sequestration of federal funds.

7. ABOUT THE DATA

The reporting cycle is the federal fiscal year (October through September). Data is arrived through extensive annual analysis for submittal of the U.S. Army Installations Status Report, an annual requirement. This report is the basis for leveraging federal funding participation, requiring state match.

KPM #3	REVENUE GENERATION - Percent of available armory time rented.	2005
Goal	Rent armory facilities to generate the maximum amount of rental revenue possible.	
Oregon Context	Mission.	
Data Source	Oregon Military Department internal rental revenue reports.	
Owner	Installations Division. Agency PM Coordinator is Sean McCormick (503) 584-3601	



1. OUR STRATEGY

Actively market armory facilities and seek partnerships with local, state, and federal agencies for long term rental agreements.

2. ABOUT THE TARGETS

Targets for this measure were established by the Legislative Fiscal Office.

3. HOW WE ARE DOING

This performance measure was established by the suggestion of Legislative Fiscal Office during the 2005 extended session. The actual data suggests an overly aggressive target. The more heavily rented Armories are near population centers, have a lack of community competition or have long term renters. Gain in rental activity in rural locations is a much slower process. Increased rental activity in rural locations is dependent upon growth of the community, new business, governmental relocation, and lack of community competition. Gains in rental activity in more heavily rented facilities, is also slower as they have fewer dates available for additional rentals, competition is greater in populated areas because rental venues are so close in proximity of each other. The economic downturn and staffing reductions from budget shortfalls hamper efforts to increase revenue statewide. Per our rental program manager populated areas where armories are located rent on average 33% of the time. Rural areas rent on average 17% of the time available. An overall average would be around 26% of the time available that our facilities are rented out.

4. HOW WE COMPARE

The Oregon National Guard operates and maintains the 4th largest inventory of facilities by square footage within state government. Of that inventory only the 40 Armories and a few other facilities / land areas are available for rentals. We manage a sizeable deferred maintenance requirement ($79 million) compared to a nearly non-existant schedule within the Department of Administrative Services. Information is not available from other state agencies, or if any agencies conducted similar analysis relating to the rental of armories or similar facilities.

5. FACTORS AFFECTING RESULTS

The maintenance and readiness of Oregon’s Armories is dependent upon funding. The agency's rental revenue somewhat mirrors that of the state budget and the economy. Unemployment and the economic downturn during the last several years have reduced the revenue generated by the rental program adding to the shortfall of available funding to maintain facilities. Further budget reductions and reduced staffing in the coming biennium will continue to affect the agency’s ability to generate revenue through the rental program. Because of reduced staff in our facilities we are missing rental opportunities when customers come in and we have no one on site to help them. Rising energy costs also impact availability of limited operations & maintenance funds. Several new facilities are either open or will be opening in the next few months, we are hopeful that these improvements will make will enhance our ability to aggressively market our facilities to the general public.

6. WHAT NEEDS TO BE DONE

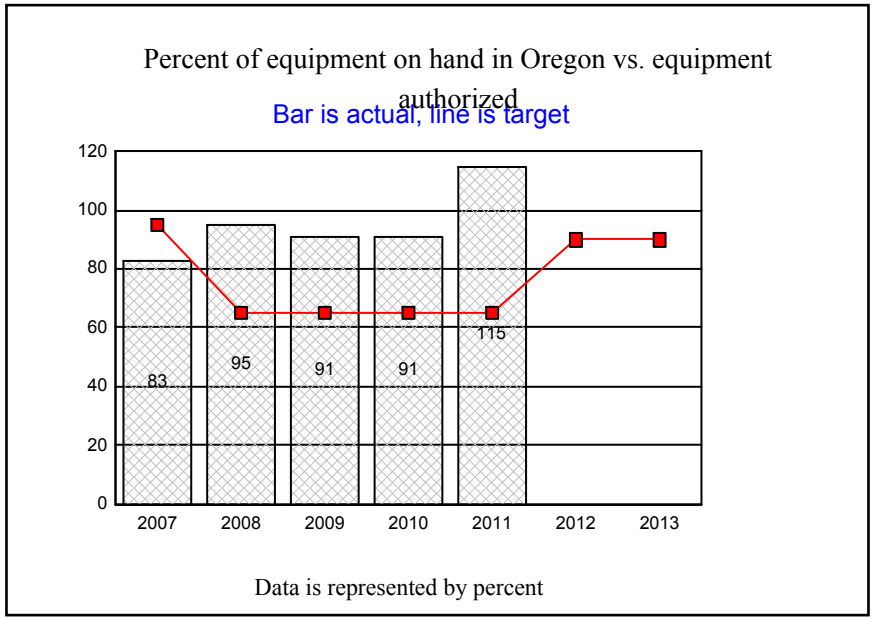
There is a distinct need to increase staff within the armories. As stated above these individuals act as points of contact for potential customers, and have direct responsibility for the ongoing maintenance of the facilities. There is also a need for increased state funding for operations and maintenance costs. These funds will provide armory staff the means to modernize, alleviate deferred maintenance, repair and maintain armories at level to attract rental use. Increased rental revenue generation can help replace appropriated funding

when the armories reach appealing conditions for marketing rentals.

7. ABOUT THE DATA

The reporting cycle is the federal fiscal year (October through September). Data is arrived through analysis of internal rental revenue reports.

KPM #4	EQUIPMENT AVAILABILITY - Percent of equipment on hand in Oregon vs. equipment authorized.	2008
Goal	Provide consistent availability of equipment for Oregon National Guard Missions	
Oregon Context	Mission.	
Data Source	Oregon National Guard Deputy Chief of Staff (Logistics).	
Owner	Oregon National Guard Deputy Chief of Staff (Logistics). PM Coordinator is Sean McCormick (503) 584-3601	



1. OUR STRATEGY

Our strategy is to strive to continually have equipment available to perform in the event of a disaster occurring anywhere in Oregon.

2. ABOUT THE TARGETS

The target measures the percentage of equipment on hand in Oregon vs. equipment authorized by the National Guard Bureau for the State of Oregon.

3. HOW WE ARE DOING

For the purposes of this measure we analyzed certain types of equipment utilized in disaster recovery situations; HUMMWVS, 5 Ton Cargo Trucks, Hemitt Fueler Vehicles and Reverse Osmosis Water Purification Units (ROWPU'S) which are portable water purification systems. The result of this analysis shows for HUMMWV the state of Oregon is authorized 367 vehicles and we currently have 440 on hand, or 120% of authorized levels. For 5 Ton Cargo Trucks the state of Oregon is authorized 130 vehicles and we currently have 140 on hand, or 108% of authorized levels. For Hemitt Fueler Vehicles the state of Oregon is authorized 9 vehicles and we currently have 1 on hand, or 11% of authorized levels. For ROWPU Portable Water Purification Systems the state of Oregon is authorized 0 systems and we currently have 0 on hand. In total for federal fiscal year 2011 the state of Oregon was authorized 506 pieces of the afore mentioned equipment and we currently have 580 pieces on hand, or 114% of authorized levels.

4. HOW WE COMPARE

Currently there is no comparable data for us to draw from for the purposes of this measure.

5. FACTORS AFFECTING RESULTS

The major factors affecting the availability of equipment on hand include disaster recovery situations which the Oregon National Guard is called upon to assist with and the continued deployments of Oregon National Guard soldiers and equipment to Iraq and Afghanistan. The December 2007 and December 2008 storms that affected the coastal region of Oregon were major actions for the Oregon National Guard. Hundreds of soldiers and dozens of pieces of equipment were utilized to effectively mitigate the damage inflicted on this region. Upon completion of the Oregon National Guards duties during the December storms much of the equipment used needed to be repaired and refurbished before it could be placed back into active service. The additional component affecting equipment levels are continued long standing deployments of Oregon National Guard troops and equipment. When National Guard troops deploy they have to have sufficient equipment on hand to accomplish their mission and this has had a negative impact on the availability of equipment on hand within the state of Oregon.

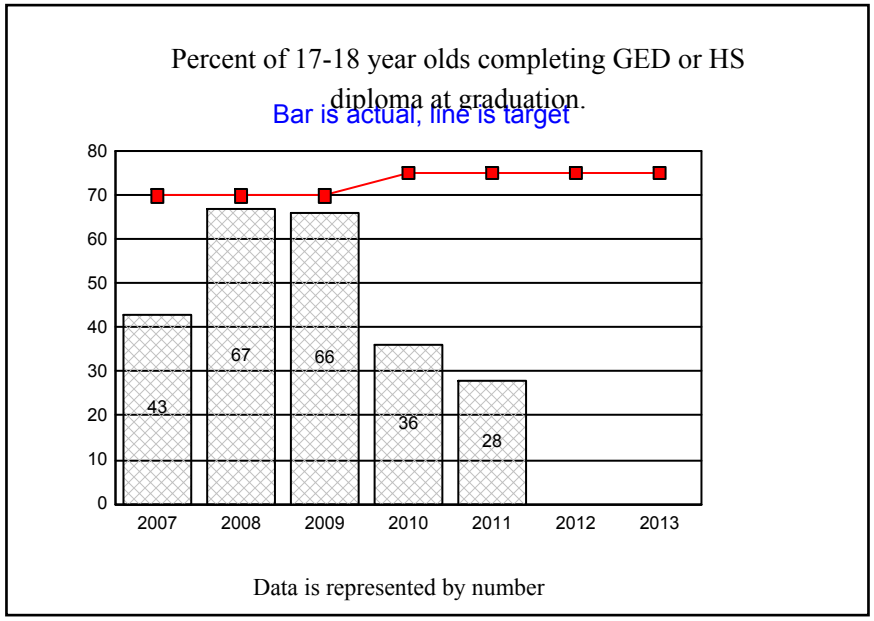
6. WHAT NEEDS TO BE DONE

More emphasis needs to be placed on pre-disaster mitigation in commonly affected areas such as the coastal region and continued legislative support of the equipment refurbishment program.

7. ABOUT THE DATA

The reporting cycle is the federal fiscal year (October through September).

KPM #5	YOUTH CHALLENGE - Percent of 17-18 year olds completing GED or HS diploma at graduation.	2005
Goal	Provide alternative education solutions for Oregon youth.	
Oregon Context	National Guard Youth Challenge Mission.	
Data Source	National Guard Bureau Annual Youth Challenge Report. [www.ngycp.org]	
Owner	Youth Challenge Program. Agency PM Coordinator is Sean McCormick (503) 584-3601	



1. OUR STRATEGY

Cost effective and purpose oriented intervention in the lives of Oregon's at-risk youth.

2. ABOUT THE TARGETS

The target measures the percentage of 17-18 year old students who graduate the academic (residential) phase of the program and obtain either a GED or a High School diploma each year.

3. HOW WE ARE DOING

The Youth Challenge curriculum successfully prepares students to pass General Education Diploma (GED) and High School diploma requirements, whereas these same students were failing in the traditional setting. 17-18 year old students not earning academic credentials and those students 16 years of age who graduate the program earn 8 accredited High School credits towards acquiring diplomas.

4. HOW WE COMPARE

Of the 260 students graduated in the 2011 reporting cycle, 39 were 16 years of age and were not counted in this measure. Of the 221 graduating students over the age of 16, 11 earned a GED and 51 earned High School diplomas, a total of 28%. The national average among 33 Challenge programs was 54% for 2011. 159 of the 221 graduating students over the age of 16, or 72% earned 8 High School credits and chose to return to their home High School and pursue their Diploma. These figures are provided by staff within the Oregon Youth Challenge Program.

5. FACTORS AFFECTING RESULTS

Applicants who are enrolled in Youth Challenge are 16-18 year olds who were not successful in the traditional High School setting and have dropped-out or were failing. Challenge offers these youth an alternative for success. The military setting and the curriculum combines classroom work, community service, and challenging individual and team activities into one experience. The students learn how to work with others, set personal goals, and plan their direction for life. Their personal goals and motivations to succeed provide a base for them to become positive, productive, taxpaying, contributing citizens in their respective communities.

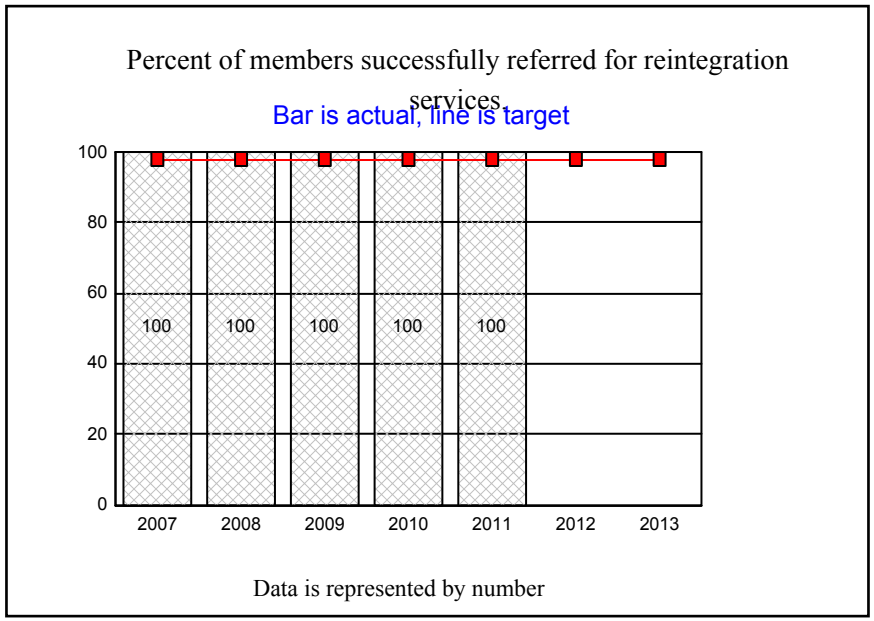
6. WHAT NEEDS TO BE DONE

Continued Legislative support for General Fund dollars in matching the Federal Funds provided to operate the program.

7. ABOUT THE DATA

The reporting cycle is the federal fiscal year (October through September). www.ngycp.org and www.oregon.gov/OMD/YCP/ national and state sites.

KPM #6	REINTEGRATION - Percent of members successfully referred for reintegration services.	2008
Goal	Provide reintegration services to soldiers and airmen returning from overseas deployments.	
Oregon Context	Mission.	
Data Source	Oregon National Guard Service Member and Family Support Program (SMFS).	
Owner	Oregon National Guard Service Member and Family Support Program (SMFS). Agency PM Coordinator is Sean McCormick (503) 584-3601	



1. OUR STRATEGY

Provide outreach and referral to services for Service Members and their families.

2. ABOUT THE TARGETS

The target measures the percentage of Service Members who have been successfully referred for reintegration services.

3. HOW WE ARE DOING

The Service Member and Family Support Program (SMFS) has successfully referred or provided reintegration services to 100% of ORNG Service Members returning from deployment since federal fiscal year 2009. This has been accomplished by providing Yellow Ribbon Reintegration Program training, conducting seminars and workshops during unit training assemblies, and establishing a network of public and private sector organizations located throughout Oregon communities available to support Service Members and their families.

4. HOW WE COMPARE

The National Guard Bureau (NGB) considers the Oregon National Guard Reintegration Program one of the best in the nation. JTAP team members were requested by name to brief Oregon's program during a national reintegration program training conference in April 2012. NGB considers Oregon's Reintegration Program a nationwide best practice for other states to emulate. During the most recent nine month reporting period (October 1, 2011 - July 1, 2012) the Reintegration Team has had over 13,000 interactions with Service Members, individually and in group settings, throughout Oregon. The team conducted four Career Fairs, seven Job Search Training workshops, and met with 107 employers to discuss employment opportunities. The employment outreach resulted in over 175 confirmed hires and many unreported hires. The Reintegration Team conducted 1,136 individual veteran health and welfare checks and referred 4,241 veterans to service organizations for assistance. The team met with 349 members of public and private sector organizations to build a veteran's support network throughout Oregon. The figures are reported by the Oregon Reintegration Program.

5. FACTORS AFFECTING RESULTS

The loss of federal funds supporting the Oregon National Guard Reintegration Program in federal fiscal year (FFY) 2013 will significantly reduce reintegration support available to Service Members. There are no active duty installations in Oregon to support Service Members and veterans. The closest active duty installations are Joint Base Lewis-McChord located 130 miles north of Portland, Mountain Home Air Force Base located 500 miles east of Willamette Valley population centers, and Travis Air Force Base located 500 miles south of Willamette Valley population centers. The lack of active duty military installations in Oregon limits resources available to Service Members and veterans. Many Oregon Service Members and veterans seek assistance from the Oregon National Guard Reintegration Program to avoid the expense and long travel to active duty installations in neighboring states. Oregon National Guard Reintegration Program federal fund reductions in FFY13 will reduce support available to Service Members and veterans in Oregon. The large geographic dispersion of Service Members and veterans in Oregon creates challenges in providing support to individuals living in rural areas. Loss of Reintegration Program federal funds and associated staff reductions will impact our ability to sustain the current level of support to Oregon Service Members and veterans.

6. WHAT NEEDS TO BE DONE

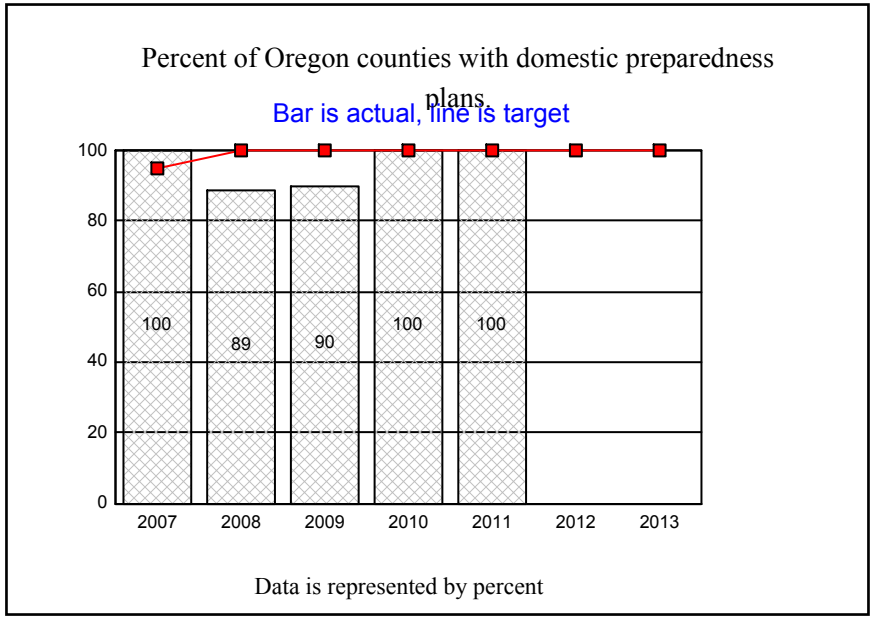
The most critical factor affecting the Oregon National Guard Reintegration Program is the projected FFY13 federal budget reduction. The program's approximately $3.9M FFY

budget is funded 99% by the National Guard Bureau and 1% by the state of Oregon. The program is projecting an approximate $1.8M federal funds reduction in FFY13. The reduction will result in a loss of federal employees and funding to support reintegration of Service Members and veterans in Oregon. An increase in State funding and positions is critical to continuation of a viable reintegration program.

7. ABOUT THE DATA

The reporting cycle is the Federal fiscal year (October through September).

KPM #7	DOMESTIC PREPAREDNESS PLANS - Percentage of counties with National Incident Management System (NIMS) compliant Emergency Operations Plans (EOPS).	2002
Goal	Emergency Preparedness - Assure that cities and counties are prepared for disasters and emergencies.	
Oregon Context	OBM #67 - Emergency Preparedness	
Data Source	Quarterly reports from the counties provide current data on plan development, training, and exercises.	
Owner	Oregon Emergency Management, Martin Plotner, 503-378-2911 Agency PM Coordinator is Sean McCormick (503) 584-3601	



1. OUR STRATEGY

The goal of the Office of Emergency Management (OEM) is to ensure all 36 counties in Oregon have emergency operation plans which effectively protect their citizens and their property during an emergency situation. To accomplish this goal OEM is measuring the percentage of counties which have a National Incident

Management System (NIMS) compliant Emergency Operations Plan (EOP). The NIMS is a comprehensive, national approach to incident management which provides a template for managing an incident regardless of cause, size, location or complexity. The applicability of the National Incident Management System crosses local, state, and federal jurisdictions and all functional disciplines within in emergency response. There are five functional components of NIMS – Preparedness, Communications and Information Management, Resource Management, Command and Management, and Ongoing Management and Maintenance. Each of these functional components must be included in a county EOP to be deemed compliant with NIMS. Funding for the completion of these Emergency Operations Plans is provided by the Homeland Security Grant Program and the Emergency Management Performance Grant, which are administered by the Office of Emergency Management.

2. ABOUT THE TARGETS

The target for this measure is for 100% of Oregon counties to have a National Incident Management System compliant Emergency Operations Plan on file with the Office of Emergency Management (OEM). Over the past number of years it has been shown that between 90-100% of counties have kept an up to date Domestic Preparedness Plan on file with OEM, and there is little doubt that this trend will continue with Emergency Operation Plans. These plans have a five year life cycle, similar to the cycle developed for the hazard mitigation plans, and must be updated and re-submitted to OEM for review and approval.

3. HOW WE ARE DOING

Currently 100%, of Oregon's counties have a National Incident Management System compliant Emergency Operations Plan on file with the Office of Emergency Management (OEM). This is consistent with recent trends in the number of counties with Domestic Preparedness Plans on file with OEM.

4. HOW WE COMPARE

Currently comparable information is not readily available regarding this particular measure in other states or at the national level. The link provided below will take the reader to the NIMS homepage where more information is available regarding the component pieces of NIMS, FAQ's, and the relationship between NIMS and the National Response Framework.
http://www.fema.gov/national-incident-management-system

5. FACTORS AFFECTING RESULTS

A primary issue affecting the results of this measure is available resources, at both the state and local level. Economic conditions have required state and county governments to find new, more efficient ways to conduct business without hampering service delivery. To date OEM has been able to maintain the

records showing when local governments need to update and re-submit their Domestic Preparedness and Emergency Operations Plans. In addition OEM has been able to continue to offer support services to local governments as they work to refine these plans. That being said, the support services being provided to local governments are the responsibility of one or two key staff members within OEM, and there are no readily available resources to help provide back-up or support. At the county level it is taking a longer period of time for plans to be modified and re-submitted due to lack of qualified personnel and other resources. OEM is anticipating a major reduction in the level of Homeland Security Grant funding in future years. This grant is the primary funding source for the development of Domestic Preparedness and Emergency Operations Plans. A significant reduction may cause several local jurisdictions to fall behind in the ongoing development and maintenance of these plans.

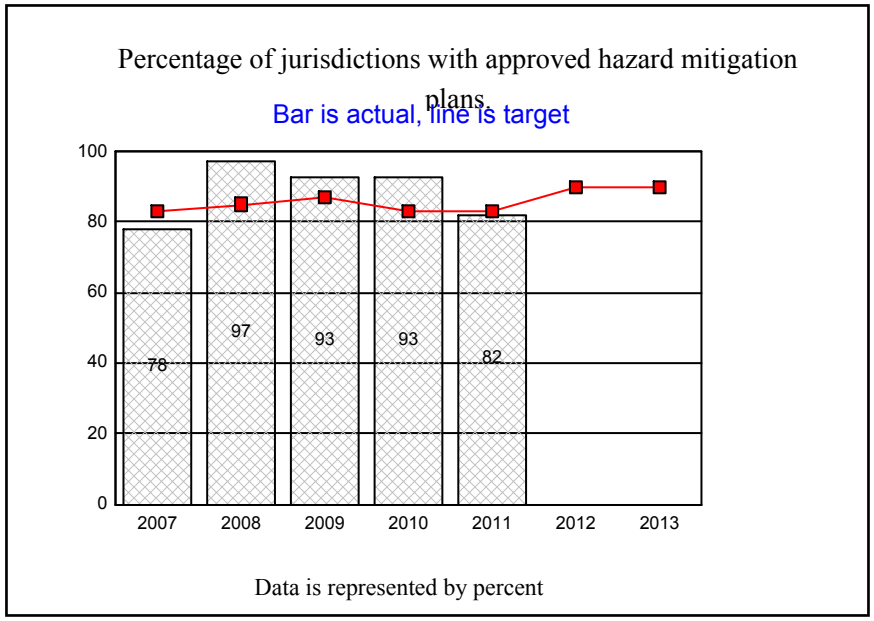
6. WHAT NEEDS TO BE DONE

Continued support for the Office of Emergency Management to increase staff to assist county governments with the ongoing requirements associated with Domestic Preparedness and Emergency Operations planning. While there is a limited number of options available to State Government as it relates to local emergency management, acknowledging the fact that help is needed at the local level will provide moral support to local governments. OEM is continuing its efforts to encourage local governments to be as proactive as possible with regards to this type of planning due to level of federal funding which currently exists

7. ABOUT THE DATA

Data is collected quarterly and reported annually.

KPM #8	HAZARD MITIGATION PLANS - Percentage of state population covered by a FEMA approved local hazard mitigation plan.	2002
Goal	Emergency Preparedness - Assure that cities and counties are prepared for disasters and emergencies.	
Oregon Context	OBM #67 - Emergency Preparedness	
Data Source	OEM maintains an inventory of mitigation plans, which will be updated to include completed plans, which meet FEMA requirements and have been approved by FEMA.	
Owner	Oregon Emergency Management, Martin Plotner 503-378-2911, Agency PM Coordinator is Sean McCormick (503) 584-3601	



1. OUR STRATEGY

Measuring the percentage of Oregon's population covered by a FEMA approved local hazard mitigation plan helps the Office of Emergency Management determine the effectiveness of local planning efforts, as well as the distribution of federal hazard mitigation grant funds. Hazard mitigation is defined by the

Federal Emergency Management Agency as "sustained action taken to reduce or eliminate long-term risk to people and their property from hazards". The benefits provided to local communities through effective hazard mitigation planning includes identifying cost effective actions for risk reduction that are agreed upon by stakeholders and the public, focusing resources on the greatest risks and vulnerabilities, building partnerships by involving people, organizations, and businesses, increasing education and awareness of hazards and risk, communicating priorities to state and federal officials, and aligning risk reduction with other community objectives. As the percentage of population covered by these plans expands or retracts OEM is able to identify the regions which are causing the fluctuation to occur. OEM can then interact with these communities to determine what course of action needs to be taken to ensure the population is covered by an approved plan.

2. ABOUT THE TARGETS

Currently OEM has set the target for 85% of Oregon's population to be continually covered by a FEMA approved hazard mitigation plan. This target was deemed appropriate as hazard mitigation plans, per Code of Federal Regulation (CFR), Title 44, Chapter 1, Part 201, have a cycle life of five years. Every five years a local jurisdiction must review and revise its plan to reflect changes in development, progress in local mitigation efforts, and changes in priorities. The plan must then be re-submitted to the Office of Emergency Management for review and approval. Meeting this five year deadline is a requirement for a local community to be eligible to retain federal hazard mitigation grant funding.

3. HOW WE ARE DOING

For the most recent reporting period 82% of Oregon's population was covered by a FEMA approved hazard mitigation plan. 5 of the 36 counties who have hazard mitigation plans on file with the Office of Emergency Management (OEM) have expired plans. Each of these counties is currently working with the OEM to update their plans. As of April 30th 2012 FEMA reported that 69% of the nation's population was covered through community and/or tribal hazard mitigation plans.

4. HOW WE COMPARE

As of April 30th 2012 the Federal Emergency Management Agency is reporting that 69% of the nation's population is currently covered through a community and/or tribal mitigation plan. Based on a percentage of total population Oregon is ahead of the national trend by 13% as it relates to population covered by hazard mitigation plans. The link below will take the reader to the FEMA web site where a map is displayed showing mitigation plan statuses across the United States.

http://www.fema.gov/multi-hazard-mitigation-plan-status

5. FACTORS AFFECTING RESULTS

A primary issue affecting the results of this measure is available resources, at both the state and local level. Economic conditions have required state and local governments to find new, more efficient ways to conduct business without hampering service delivery. To date OEM has been able to maintain the records showing when local governments need to update and re-submit their hazard mitigation plans. In addition OEM has been able to continue to offer support services to local governments as they work to refine these plans. That being said, the support services being provided to local governments are the responsibility of one or two key staff members within OEM, and there are no readily available resources to help provide back-up or support. At the local level it is taking a longer period of time for plans to be modified due to lack of qualified personnel and other resources.

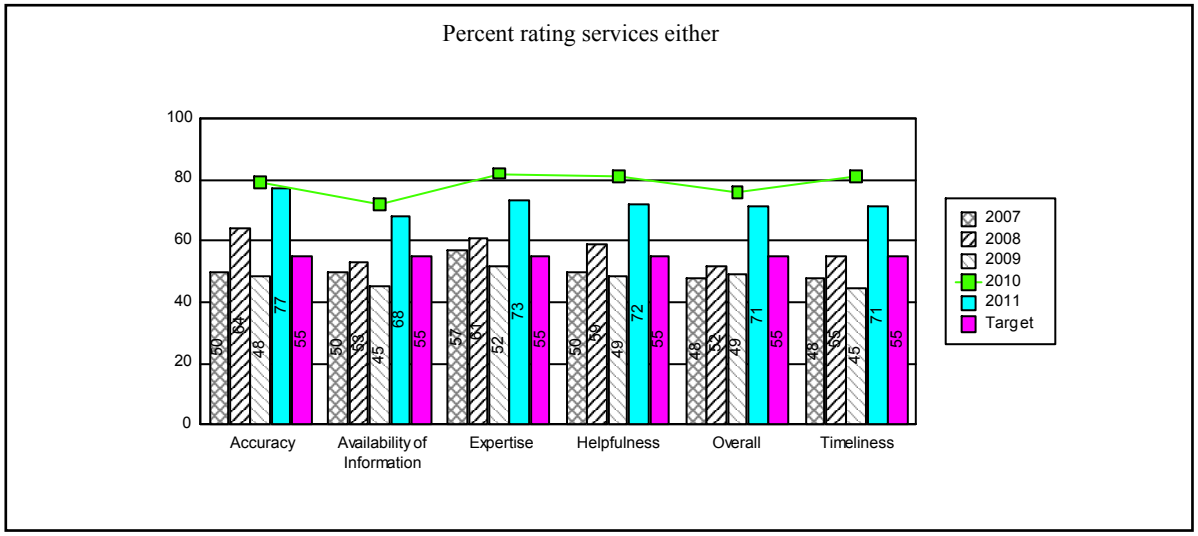
6. WHAT NEEDS TO BE DONE

Continued support for the Office of Emergency Management to increase staff to assist local governments with the ongoing requirements associated with hazard mitigation planning. While there is a limited number of options available to State Government as it relates to local emergency management, acknowledging the fact that help is needed at the local level will provide moral support to local governments. OEM is continuing its efforts to encourage local governments to be as proactive as possible with regards to hazard mitigation planning due to the potential for increased federal funds resulting from a future disaster.

7. ABOUT THE DATA

Data is collected quarterly and reported annually.

KPM #9	CUSTOMER SATISFACTION - Percent of customers rating their satisfaction with Military Department customer service as "good" or "excellent": overall customer service, timeliness, accuracy, helpfulness, expertise and availability of information.	2006
Goal	The goal of this measure is to ensure the customers of the Oregon Military Department are satisfied with the level of service they receive from the department. This measure consolidates data regarding overall customer satisfaction, timelines of information, and accuracy of information, helpfulness of information, expertise, and the availability of information provided by the Oregon National Guard, the Oregon Military Department, and the Office of Emergency Management.	
Oregon Context	Mission.	
Data Source	The source of data for this measure is an online survey run through Survey Monkey. The survey is sent to city and county officials, state legislators, state agency heads and certain members of the Oregon National Guard.	
Owner	Agency Leadership. Agency PM Coordinator is Sean McCormick (503) 584-3601	



1. OUR STRATEGY

Our strategy is to ensure that information and assistance is available to the citizens of Oregon at all times. Successful implementation of this strategy is especially important as it relates to disaster preparedness and response, as well as the functional readiness of our armories. The Military Department wants to ensure that information and assistance is available to anyone needing it before, during, and after a disaster situation. This strategy is also necessary to ensure our armories throughout the state are prepared to house military units, and are ready to serve the surrounding communities in times of crisis.

2. ABOUT THE TARGETS

Targets were established by Legislative Fiscal Office and from data collected from the 2006 Customer Satisfaction survey.

3. HOW WE ARE DOING

2012 survey results for federal fiscal year 2011 indicated Overall Customer Service was the 5th highest category with 71% of respondents rating it as good or excellent. This is a reduction of 5% from the 2011 survey where 76% of respondents rated Overall Customer Service as good or excellent. Accuracy of Service was the highest scoring category in the 2012 survey with 77% of respondents rating it as good or excellent. Helpfulness, Expertise, Availability of Information, and Timeliness ranged from 68% to 71% of respondents rating these categories as good or excellent. Overall each category suffered a decline from the previous year's report. This retraction from the previous year can be partially attributed to budget reductions taken by the Military Department during the 2011-13 biennium which resulted in a massive reduction to our operations and maintenance programs. This information has been shared with agency leadership and discussions are currently underway to improve the scores for the next report.

4. HOW WE COMPARE

While other state and Federal agencies do customer satisfaction surveys, there is no known comparable agency that aligns with the department's mission, goals and customer pool. The Oregon Military Department operates and maintains the 4th largest inventory of facilities by square footage within state government. These facilities are critical to maintaining force structure as well as providing our citizen soldiers with a home base in which to prepare for deployments. The Office of Emergency Management (OEM) works with city and county governments to ensure that proper hazard mitigation and emergency operations plans are in place. OEM works with the 48 Public Safety Answering Points across the state on communication and technical issues related to 9-1-1 services. OEM also works with communities to help them recover from natural or human made disasters. Our Community Support Program operates the only statewide alternative high school for students 16-18 who are failing in the traditional high school environment.

5. FACTORS AFFECTING RESULTS

The maintenance and readiness of Oregons armories are dependent upon funding. Federal funding is leveraged to the maximum extent. Decline in armory condition is due in part to reduced General Fund services & supplies, and personal services. Limited funding does attribute to timeliness in responding to facilities issues unless major mechanical or structural failures occur, expenses for non-critical repairs for one armory give way to critical repairs required at another armory. Limited staffing does not provide for a maintenance technician at each facility, so a regional system is in place wherein maintenance technicians travel distances to address service needs. The Office of Emergency Management is affected by limited General Fund support and reductions in Federal Grant monies which are critical for hiring and retaining key staff members. Limited staffing does have a major impact on the timeliness of responding to customer requests for assistance post disasters. Staff time is directed towards the most critical situations first and then follow-ups are conducted to ensure that all customer needs are met.

6. WHAT NEEDS TO BE DONE

Continued state funding support will provide the needed investment to improve armory readiness and increase the capabilities of the Office of Emergency Management to effectively respond to disaster situations throughout the state.

7. ABOUT THE DATA

For the 2012 Customer Service Survey for federal fiscal year 2011, the Oregon Military Department requested that respondents classify themselves as one of 43 distinct options. This allows the department better analyze which customers are responding to our survey and which ones need to be engaged further. The OMD survey also asks respondents to identify if they are a member of the Oregon Army or Air National Guard, or a member of another Armed Forces Component. The survey allows the respondent to critique customer service for the Oregon National Guard, the Oregon Military Department, and the Office of Emergency Management. In calculating the percentages the Military Department ignored the “Don’t Know” responses .

MILITARY DEPARTMENT, STATE of OREGON	III. USING PERFORMANCE DATA

Agency Mission: The Oregon National Guard will provide the citizens of the State of Oregon and the United States with a ready force of citizens soldiers and airmen, equipped and trained to respond to any contingency, natural or manmade.

Contact: Sean McCormick	**Contact Phone:** 503-584-3601
Alternate: Debbie Stratman	**Alternate Phone:** 503-584-3873

The following questions indicate how performance measures and data are used for management and accountability purposes.

1. INCLUSIVITY	*** Staff :** • Staff: The Adjutant General, Deputy Director, Senior Leaders within the Command Group and military units, and Division Directors remain involved in the maintenance, analysis and review of agency performance measures and numerous performance indicators reported at the national level. The Departments of the Army and Air Force, and the National Guard Bureau have established extensive federal reporting systems which include performance indicators. The performance measures used by the Oregon Military Department that directly link to the agency's goals supporting its mission to the State of Oregon are just a few of the many performance indicators developed, tracked and analyzed in on-going federal reporting systems. *** Elected Officials:** • Elected Officials: Congressional involvement in the development of Department of Defense reporting systems was exercised for analysis of services and appropriation. With exception of Legislative directed customer service performance measures, the performance measures developed for state reporting were established and developed from extensive and existing Department of Defense and National Guard Bureau reporting systems. *** Stakeholders:** The National Guard Bureau, Department of Defense and Department of Homeland Security officials continually review performance results and operational statuses for the purposes of providing support and coordination, and for compiling reported data into higher systems for national level reporting, analysis and review. *** Citizens:** Citizens of the state of Oregon are welcomed and encouraged to view the agency's key performance measures. Our customer service survey directly involves the end users of our facilities and our staff and it provides them a forum to voice opinions which are listened to and acted upon by agency leadership. We strive to continually engage the communities where are services are utilized and we encourage citizens to voice their comments and concerns as it provides us the information necessary to better perform our duties.
2 MANAGING FOR RESULTS	The Adjutant General and the senior leadership of the Oregon National Guard review statistics, operational status, and performance indicators presented by every division and command on a frequent and regular basis. It is here further

	studies, research, or change in priorities or operation is ordered by the Adjutant General. The Adjutant General and senior leadership is briefed regularly by every unit command, on force strength, personnel, equipment and facility readiness, and operational status.
3 STAFF TRAINING	Federal reporting requirements including performance indicators have been in existence for decades. Division Directors of the Oregon Military Department and leaders in the Oregon National Guard have been tracking, presenting, and interpreting performance indicators and status reports during the evolution of their careers. Directors, Program Managers, and staff attend national conferences and workshops sponsored by the federal grant funding directorates within the National Guard Bureau, and the Department of Homeland Security part of which includes performance indicator review and reporting. National Guard soldiers and airmen continually attend military schools and training events, many of which involve review and analysis of performance indicators and actions.
4 COMMUNICATING RESULTS	*** Staff :** • Staff: Regular and frequent presentations, meetings and reviews to assess operational results, determine what works well and what does not, and to adjust operational processes to achieve desired results. *** Elected Officials:** • Elected Officials: The Governor as the Commander-in-Chief of the Oregon National Guard is involved and maintains awareness of operational issues and results for the purpose of leadership and direction. Legislative members are presented performance results through various presentations. Oregon's Congressional delegation and their staff are communicated with on issues were they may impact performance results. Members of Congress are presented performance results from Department of Defense and the National Guard Bureau through presentations and testimony. *** Stakeholders:** National Guard Bureau, Department of Defense and Department of Homeland Security officials review performance results and operational statuses for the purposes of providing support and coordination, and for compiling reported data into higher systems for national level reporting, analysis and review. *** Citizens:** The agency posts its performance measure results on the agency website. Concerning Youth Challenge; parents, educators, and local officials are invited for tours and presentations, and attend graduation ceremonies. All are provided information concerning program performance. Local central Oregon business leaders, Legislative members, and former Legislative members receive briefings on Youth Challenge performance for the purpose of awareness, communication, and assistance. Citizens perform as mentors in the post-residential portion of the program.

Oregon Army National Guard Net Zero Pilot Installation

VOLUME I, ISSUE I DECEMBER 2011

INSIDE THIS ISSUE:

SPECIAL POINTS OF INTEREST

- NET ZERO WATER: CAMP RILEA
- NET ZERO ENERGY: CHRISTMAS VALLEY

OREGON NET ZERO INITIATIVES

Net Zero, the Army's program to conserve resources, is also being implemented by the Oregon Army National Guard (ORARNG). By definition net zero pilot installations will consume only as much energy or water as they produce and eliminate solid waste to landfills by the year 2020. The Army announced on April 19, 2011 the locations identified to be net zero pilot installations. Of more than 100 nominations that were received from installations around the world, six pilot installations were selected in each of the energy, water, and waste categories and two installations will be practicing conservation strategies in all three categories to become integrated Net Zero sites. The ORARNG is the only Guard State chosen to participate in the Army's program having been selected to pilot Net Zero Water at Camp Rilea and to pilot a unique and challenging Net Zero Energy Initiative, which includes all of the Guard installations across the state, under a "Fort Oregon" concept. Since a net zero energy installation produces as much energy as it uses over the course of a year, "Fort Oregon's" goal is to achieve net zero energy for the entire organization statewide. Similarly, Camp Rilea's net zero water goal is to limit the consumption of freshwater resources and return water back to the same watershed so as not to deplete the groundwater and surface water resources of the region in quantity and quality over the course of a year.

Being a Pilot installation, the ORARNG will be pioneering the Net Zero program for National Guard Bureau (NGB). Lessons learned can be highlighted and help support not only the Army program and energy reduction efforts such as EO 13423 and EO 13514 but also the efforts of Oregon Department of Energy and NGB. ORARNG will be relying on assistance from organizations like the National Renewable Energy Laboratory (NREL), Pacific Northwest National Laboratory (PNNL), and U.S. Army Corps of Engineers (USACE) who are providing guidance to the Pilot installations. Several sources of renewable energy are being considered including but not limited to solar, wind, wave, and geothermal. Energy efficiency is the primary focus in order to reduce costs and limit the amount of alternative energy that is needed. USACE is working with ORARNG to conduct energy audits, assess existing systems, and target efficiency gains for Net Zero energy goals.

One of the goals of the ORARNG is to highlight the progress, plans, successes and challenges. To that extent the ORARNG participated in this year's AUSA convention in Washington DC on October 10-12, 2011 highlighting the progress and plans. Exposure in this manner helps foster the development of ideas and refine future plans. It also is a good marketing tool to find support through potential partners. Wave energy as an example is emerging technology so there is a great need to engage the leaders in this technology and open up partnering opportunities. The ORARNG is also partnering with local community colleges and universities, who are able to use this opportunity to provide research and training.

Net Zero *Energy* Updates

The Assistant Secretary of the Army for Installations, Energy and Environment (ASA (IE&E)) has developed the Army's Net Zero Installation Strategy. The goal is for installations to be net zero, based on net zero energy, net zero water and net zero waste, all striving towards sustainable installations. We are creating a culture that recognizes the value of sustainability measures in terms of financial, mission capability, quality of life, local community relationships, and preserving the Army's future options.

The Army's Net Zero Installation Program is a strategy that strives to bring the overall consumption of resources on Installations down to an effective rate of zero.

A Net Zero ENERGY Installation produces as much energy as it uses over the course of a year.

Participated in NGB Energy Summit in Boise, Idaho, 31 Oct – 4 Nov 11.

Christmas Valley Solar Project: Provided tour of Christmas Valley site for State Legislature and Governor representatives on 27 Oct 11. Received expression of interest presentation from Eaton Corporation/ TDX Power (joint venture) on 10 Nov 11. This joint venture is developing a proposal to construct a 20MW solar project on this site. Conducted a press release on 28 Nov 11 announcing construction of the 150kW roof top solar panel project that is scheduled for completion by the end of December.

Camp Rilea Wave Energy Project: Executed $325K NGB IDIQ contract to hire Science Applications International Corporation (SAIC) to conduct feasibility study of Camp Rilea Wave Energy project. NGB funded $7K to hire Plexus Logistics International to conduct Army Compatible Use Buffer feasibility study in support of Camp Rilea Wave Energy project. Met with Clatsop County Commissioners on 7 Nov 11 and expressed ORARNG interest in exploring the feasibility of wave energy off Camp Rilea's coast line. Conducted kick-off meeting on 15-16 Nov 11 with SAIC for Wave Energy Feasibility Study. Study is projected to be completed in 9-months.

Resource Efficiency Manager (REM): Issued $595K MIPR to the Huntsville District of the U.S. Army Corps of Engineers (USACE) on 6 Sep 11 to hire three REMs in order to build capital improvement and O&M renewable energy and energy efficiency strategy; complete grant applications; develop programming documents; and, conduct facility assessments. Huntsville District hired ChaduxTt JV to accomplish this work over a year's period for all of Fort Oregon. The first two of three REMs began working in AGI during the week of 14 Nov 11.

Energy Engineering Analysis Program (EEAP): Assistant Secretary of the Army for Energy funded year end efforts on 2 Sep 11 to provide energy efficiency audits and renewable energy studies for Salem and Camp Rilea facilities. Huntsville USACE, PNNL, and M.C. Fuhrman and Associates (MCFA) initiated "Level 0" site visits for energy efficiency audits of Camp Rilea and Salem during the week of 28 Nov 11. During the same week, NREL conducted renewable energy assessments of facilities throughout the State.

Umatilla Renewable Energy: Issued $60K MIPR on 2 Sep 11 to the Seattle District USACE and PNNL to conduct renewable energy feasibility study for Army National Guard enclave at Umatilla Chemical Depot.

Polk County Readiness Center: Broke ground on 13 Jun 11 for an $18.420M Readiness Center consisting of 39,813 SF facility that replaces an armory constructed in 1911. Project goal is to achieve LEED Gold certification and includes 29kW PV component.

Net Zero *Water* Updates

A Net Zero WATER Installation limits the consumption of freshwater resources and returns water back to the same watershed so as to not deplete the groundwater and surface water resources of that region in quantity or quality over the course of a year.

CAMP RILEA PROFILE:
Founded in 1927 and situated on 1,800 acres
Mission of Camp Rilea includes: Federal/State Military training and North Coast Emergency Operations Center. Soldier training consists of approximately 110,000 soldiers annually.
Climate: Annual Average precipitation is 67 inches; Annual Average temperature is 50.9° F.
Water Source: Private on-post; Municipal (backup).
Water Use: Water rights allow 5.8-12.9M gal/mo (dry season constrained); Supply Design peak 6.9-7.7M gal/mo (accounts for future growth); Current average 0.5-1M gal/mo.
Wastewater Effluent Averages 0.4M gal/mo.

Current Activities

Photo (Above): 426,000 gallon storage reservoir for Water Supply System.

Photo (Right): Water supply system, water treatment plant.

Future Initiatives:
Efficiency Measures - Dual flush toilet fixtures, (replace aging fixtures with dual flush capability). Install during new construction.
High Efficiency toilets, showerheads and faucets - install during new construction.

Recycled Class A Wastewater - Expand effluent reuse loop to direct up to 100% of effluent to other uses (currently at 65%).

Irrigation - Expand landscape irrigation network to use recycled wastewater.

Domestic non-potable plumbing - Approximately 61% of potable water currently goes to domestic plumbing— Large reduction target; Reduce potable supply demand; retrofit existing plumbing systems and accommodate in new construction; relieve water right constraints in dry season.

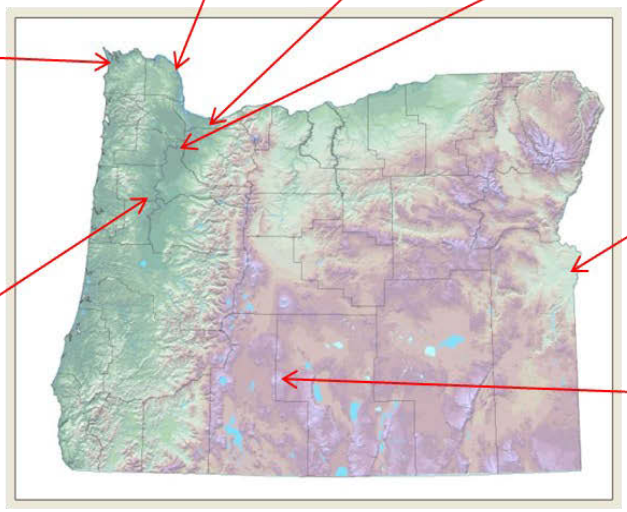
ENERGY CONSERVATION EFFORTS

Camp Rilea 3kW Wind Existing
(1.5-3MW Proposed)

St. Helens Armory 6kW Solar

Gresham Armory 3.5kWSolar

Camp Withycombe AFRC 7kW Solar



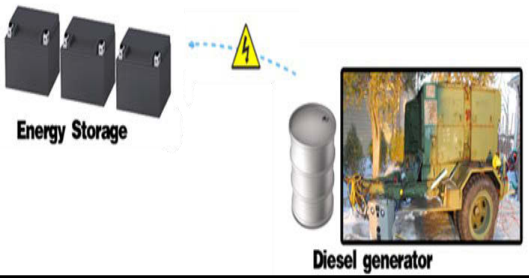
Ontario Readiness Center
103kW Solar

Polk County Readiness Center 29kWSolar
(Will Complete 2012)

Christmas Valley 150kW solar
(20MW Solar Proposed)

Photos (R): ONTARIO READINESS CENTER
The 36,000 square foot facility houses Company C, 3-116 Cavalry Battalion. The facility includes two Abrams Full-Crew Interactive Simulator Trainer (AFIST) bays totaling 2,048 square feet, which allows crews to conduct tank gunnery training using the actual controls and input devices of the Abrams tank. Treasure Valley Community College, a partner in the project, uses two classrooms alongside the National Guard and local community. The new building replaces a 1950s-era armory.
The facility also features "green technology", incorporating a geothermal-based heating system, and a solar power array capable of producing 103 Kilowatts of energy. Project includes increased R-value in walls, roof, and glazing. The design meets the Leadership in Energy and Environmental Design (LEED) and has earned a Gold Certification from the U.S. Green Building Council.

PHOTO (Below): Camp Withycombe
Camp Withycombe operates a generator refurbishment program that tests anywhere from 6 to 10 generators a day. The program runs each generator, ranging from 2kW to 200kW, for at least 8 -hours per day on a load. The program is forecasted to test well over 1,000 generators during fiscal year 2012. This project would capture the presently unused energy and repurpose it for use by the Camp. Project may incorporate renewable energy generation and will include energy storage (i.e., electrolyze/fuel cell subsystem, advanced batteries, electrolytic super capacitors, file wheels, etc). Energy reuse opportunities may include fuel cell powered forklifts, electrical vehicle charging, facility UPS, and etc. Energy control and monitoring in the form of electrical and communication micro-grid implementation at the Camp may be incorporated.



Project Horizon
Solar Voltaic Installation
Christmas Valley, Oregon

Project Budget: $1,090,175.00

Design Build Contractor: Randolph Construction Services, Pasco, WA.

Structural Engineer: Bradford Engineering, Lake Oswego, OR.

Electrical Engineer: Hire Electric, The Dalles, OR.

Schedule Completion:
Sector 4, 90% complete
Sector 5 and 6, 75% complete

Project completion expected for late December of 2011.

Post Commissioning continues to ensure maximum design efficiency.

Photo (Above) Hire Electric employee installing 235 watt panels. This fastening system is specifically designed for Butler roofs.

A Design Build contract was awarded in August of 2011 to Randolph Construction Services (RCS) for design and installation of photovoltaic panels on buildings in Sectors four, five, and six. Support of the project was from an ARRA Grant through the Oregon Department of Energy. Currently as of November 28, 2011 RCS has installed all photovoltaic panels and is expected to have the project completed by late December of 2011.

Oregon Military Department's "Christmas Valley" rooftop solar array system is the largest owned by the State of Oregon at 150.5 kilowatts of energy. A press release was given on 25 Nov 11 to inform the public of the Oregon Military Department's intentions and current status for Project Horizon.

SPECIFICS

Sector Four: 338 SolarWorld Sunmodule SW 235 poly-(Cell Type Poly Crystalline). PP75KW PV Powered Inverter.
Total Generated capacity 79.4kW.
Recent activity since press release 11/28/11; OMD is in negotiation with contractor to add an additional 26 panels generating 6.1 kW for a total of 85.5 kW to Sector four.
Add an additional 12 each 235 watt SolarWorld panels supported by Enphase micro inverters. This will add an additional 2.8 kW to the overall solar voltaic system. This 2.8 kW system will operate as a future hands-on technical training and educational aid offered to the Oregon National Guard and or other educational entities to train in solar voltaic installation.

Sector Five: 18 SolarWorld Sunmodule SW 235 poly-(Cell Type Poly Crystalline). PVP 4600watt PV Powered Inverter.
Total Generated capacity 4.23kW.

Sector Six: 208 SolarWorld Sunmodule SW 235 poly-(Cell Type Poly Crystalline). A PVP 50KW PV Powered Inverter.
Total Generated capacity 48.88kW.

Recent activity since press release 11/28/11; OMD is in negotiation with contractor to add an additional 39 panels generating 9.2 kW for a total of 58 kW to Sector six.

Total Generation: 150.5 Kw

Monitoring: Deck Monitoring of Portland, Oregon. Contractor to provide one year monitoring service from time of substantial completion.

Net-Metering: Each individual facility with independent consumption meters will be utilizing a net-metering agreement with Mid-State Electric Cooperative. Currently OMD is in the process of completing the necessary application in preparation for approval.
Connectivity: Currently it is the intent of the Oregon Military Department to add the necessary infrastructure to provide the area with high speed internet service. OMD is working with Simon Shepard of Dartmouth College to determine if these additional services can be shared along with future charges.

Additional Information:
* The solar energy being generated at Project horizon is enough to supply approximately 21 average homes in Oregon.
* The Net-Metering Agreement is under review with Oregon Dept. of Justice.
* As described in the "Request for Proposal," it was required that the winning proposer follow ARRA requirements for "Buy American." Not only has RCS pursued the requirement, it has purchased both panels and inverters from Oregon based businesses. Solar panels have been provided by SolarWorld of Hillsboro, Oregon and inverters from PV Powered of Bend, Oregon.
* Design estimates of use by the three facilities should be at a minimum consumption of electricity. Generation of solar power is estimated for *sector 4 and 6* to be above consumption, providing a surplus of solar productivity. *Sector 5,* due to the north-south axis has limited solar generation. A small percentage of solar was added to sector five. A surplus of all solar generation should offset future electric costs for current use of facilities.

[Resource Efficiency Manager (REM) Program]

Project Summary/Objective:

REM's work with Installations Division staff to provide resource efficiency technical expertise. Contracts are performance based with the expectation that contractor will save more than contract cost in project development/funding, grants & rebates, and cost savings over the term of the contract. REMs will analyze highest utility users and develop projects to lower energy use, and will invigorate the Oregon Army National Guard ECIP Program. Additionally, REM staff may complete and submit required energy reports. REM's will also augment project and program management leadership in support of the Oregon Army National Guard Net-Zero Strategy.

Required Project Funding/Budget: Estimated Cost 3 REMs = $600,000/year

Where does Fort Oregon need help?

- Christmas Valley: may need additional funds for studies; 3rd party financing
- Milton-Freewater: NGB funding for energy efficiency project
- The Dalles: MILCON supplement; ECIP project approval
- Camp Rilea: Will need matching funding for studies; funding for pilot wave energy project; funding for electrical substation
- Camp Withycombe: NGB approval of energy audits and matching funding for project development
- Umatilla: will need funds for NEPA, planning and project management
- Funding for Resource Energy Efficiency Manager Program

ORARNG Points of Contact

Deputy Director Oregon Military Department
BG Michael Caldwell 503-584-3985

Director of Installations:
Mr. Roy D. Swafford 503-584-3914

CFMO OR:
LTC Ken Safe 503-584-3599

Planning & Programming Branch Chief:
Net Zero Energy Project Lead
Mr. Stanley A. Hutchison 503-584-3637

Environmental Restoration MGR:
Net Zero Water Project lead
Mr. Jim Arnold 503-584-3551

Oregon Army National Guard Net Zero Newsletter

VOLUME 1, ISSUE 2 FEBRUARY 2012

INSIDE THIS ISSUE:

Total Solar Renewable Energy Capacity Installed :

278.5 KW

Total Energy Produced per year

374,317 KWH/YR

% toward NZ goal of 20% Renewable Energy by FY20

2%

The Oregon National Guard Welcomes Assistant Secretary of the Army, for Installations, Energy and Environment.

The Oregon National Guard (ORNG) welcomes the Honorable Katherine Hammack as she arrives to tour Fort Oregon's Net Zero sites. She will review our strategy, our progress towards our goals of Net Zero Energy for Fort Oregon, and Net Zero Water for Camp Rilea. She will be meeting with members of the Governor's Energy Team, the Oregon Department of Energy and ORARNG senior leadership. Ms. Hammack will be touring facilities in Camp Rilea, Camp Withycombe and Umatilla Army Depot. The Assistant Secretary will also visit the Pacific Northwest National Laboratory while here in the Northwest. The Oregon National Guard is the only National Guard entity selected to participate in the Net Zero 2020 Pilot. Through this program, the ORNG provides pioneering leadership in applying Net Zero goals in the tenth largest state in the U.S, adapting to various geographical locations with diverse renewable resources throughout the state.

The Honorable Katherine Hammack

Net Zero Installations Conference Report

Three members of the Oregon Military Department Installation's energy team attended the Army Net Zero Conference in Chicago from January 18-20, 2012. The conference included plenary sessions with 450 attendees and break-out technical groups for energy, water, and waste. Roy Swafford and Craig Volz reported on the latest achievements of the "Fort Oregon" Net Zero Energy initiatives. Jim Arnold presented the successful implementation of the Net Zero Water projects recently completed at Camp Rilea.

Highlights of the conference included opening remarks by Major General Al Aycock, Director of ACSIM Operations, and the Honorable Katherine Hammack, Assistant Secretary of the Army for Installations, Energy and Environment (ASA IE&E). Each of the pilot Net Zero installations provided briefings on its accomplishments, scorecard metrics, strategy, and areas where additional assistance is needed.

Briefings from each of the 18 Net Zero pilot installations were insightful, covering a broad range of bases with differing geographies, missions, infrastructure, opportunities, challenges, and solu-

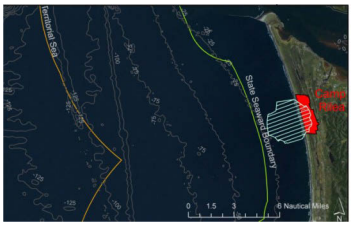
(Continued on page 4)

Net Zero *Energy* Updates: Fort Oregon Net Zero 2020

*Net Zero **ENERGY** Installations produce renewable energy equal to the energy consumed over the course of a year.*

The Assistant Secretary of the Army for Installations, Energy and Environment (ASA-IEE) has developed the Army's Net Zero Installation Strategy. The goal is for installations to reduce consumption, conserve resources and maximize renewable energy resource with the goal to be net zero, based on net zero energy, net zero water and net zero waste, all striving towards sustainable installations. We are creating a culture that recognizes the value of sustainability measures in terms of mission capability, fiscal sustainablity, quality of life, local community relationships and preserving the Army's future energy security.

- **Net Zero Conference in Chicago, January 18-20, 2012.** Presented Fort Oregon's Net Zero Scorecard. Gained valuable resources and network for future collaboration.
- **Christmas Valley Solar Project;** Completed Feasibility Study through Oregon Technology Institute. Currently in discussions with Mid-State Electric Cooperative regarding Net Metering. Gathering information from potential developers.
- **Camp Rilea Wave Energy Project**: SAIC has completed a preliminary draft feasibility study for wave energy off Camp Rilea. Oregon Military Department will be meeting with local fisheries on February 16th to discuss concerns regarding a wave energy field off the North Coast. Hosting a public meeting with the Territorial Sea Plan Commission and Clatsop and Tillamook Counties, February 17th at Camp Rilea.



- **Resource Efficiency Managers (REMs):** Welcomed Tetra-Tech's Charlie Senning, CEM, Craig Volz, P.E., and Larry Hamburg to the energy team. The REM team come with extensive experience in utilities, energy production, conservation and facilities optimization. The REMs have submitted several Energy Conservation Investment Proposals (ECIP) for renewable energy projects and are focusing on the utilities, facilities and energy reduction and production in Fort Oregon. They are preparing ESTCP proposals for several of our renewable projects
- **Energy Engineering Analysis Program (EEAP):** The team from Huntsville USACE, PNNL and MCFA will be returning to Fort Oregon to perform deep energy audits of our facilities in Camp Rilea and Fort Salem in April with final reports and proposed 1391s completed in June. NREL's team will return to Fort Oregon the week of March 19 with their proposal for renewable energy applications throughout Fort Oregon.
- **Polk County Readiness Center–** Construction for the new Readiness Center will utilize a reverse refrigerant heating and cooling system that is proven to be 40% more efficient, low E glazing and high functioning building envelope. There will be a 25KW PV array and site rainwater recovery for irrigation use.

- **Umatilla Army Depot-**The Seattle District of the USACE has produced a draft feasibility study for the production of renewable energy at the Umatilla Army Depot.

- **The Dalles Readiness Center–** A design-build firm has been chosen for the project. ECIP and ECTSP funding requests are being submitted to attain the goal of a net zero building,

- **Joint Forces Headquarters–** SAIC participated in a design charrette in January and has completed an outbrief of the process for an FY-15 MILCON Addition./Alteration of the facility that will incorporate renewable energy scope and efficiency upgrades.

Net Zero *Water* Updates: Camp Rilea Net Zero 2020

Oregon National Guard Vision

The Oregon Army National Guard (ORARNG) is committed in continuing to advance Camp Rilea as a Net Zero Water Installation. ORARNG adopted and implemented core components of this objective as early as 1978 with the design and implementation of its Wastewater Treatment Plant and effluent beneficial use with aquifer recharge. ORARNG has taken a holistic strategy in continuing this advancement to balance benefits and costs with strong efforts to limit water consumption and return it back to the original watershed.

Oregon National Guard Objectives

- Foster a Sustainability Ethic
- Strengthen Army Operations
- Meet Testing, Training, and Mission Requirements
- Minimize Impacts and Total Ownership Costs
- Enhance Well-Being

Current Activities

Our Current Activities focus on reducing consumption, eliminate municipal water import and sanitary wastewater export, utilize alternate water sources, integrate an active water management program, maximize the watershed concept, and meet mission requirements.

These objectives are met with our recently completed Water Supply System, Wastewater Treatment Plant improvements that include a Recycled Water Plant capable of converting 65% of our effluent into Class A water for non-potable uses, and Water Management and Conservation Plan.

Future Initiatives

Our Future Initiatives focus on further reducing aquifer demand by continued integration of efficiency and conservation measures, and alternate water sources. These objectives will be met by replacing aging fixtures with more efficient ones, expanding the Recycled Water Plant to convert 100% of our effluent into Class A water for non-potable uses, converting irrigated turf to native meadow, exploring rain water harvesting, and retrofitting storm water systems to utilize rain gardens which reduce pollutant loads and stabilize temperature prior to discharge.

Accomplishments:

Water Supply System – *Reduction*

Water Management and Conservation Plan completed 13 Sep 2011 and submitted to Oregon Water Resources Department for review and approval

$3.2M MILCON completed 30 Sep 2011 for new Water Supply System separating from municipal supply, installing two 200' supply wells, treatment plant (pressure-type filtration system), and one 430,000 GAL storage reservoir

Beneficial use being demonstrated in preparation for Certified Water Rights Examination

Wastewater Treatment Plant – *Reduction/Re-Purpose*

Revised operating permit issued 26 Jul 2011 by Oregon Department of Environmental Quality (DEQ)

Groundwater Monitoring Plan completed and approved by DEQ on 11 Aug 2011

$3.3M MILCON improvements completed 30 Sep 2011 converted from spray irrigation to rapid infiltration, improved effluent aeration/recirculation, new transfer pumps and force main, four RI basins, and Recycled Water Plant capable of converting 65% of effluent into Class A water for non-potable uses

Recycled Water Use Plan required by DEQ permit underway with expected completion 1 Mar 2011

Advanced Metering – *Reduction*

Initial site reconnaissance completed 6 Jan 2011 at Water Supply System

Vehicle Wash Rack – *Reduction*

Project programmed to convert existing wash rack from using potable water to using Class A water from Recycled Water Plant

Baseline Water Balance – *Reduction*

Site reconnaissance conducted 13-17 Feb 2011

Net Zero Scorecard: FORT OREGON

DoD Goal	Area	Net Zero Goal	FY2011 Status	FY2012 Planned Actions	FY2012 Target
Energy Intensity Reduction Target: 37.5% by FY2020 Baseline: FY2003	Energy	**Energy Intensity Reduction** Target: 65% by FY2020 Baseline: FY2003	**Energy Intensity Reduction** Actual: 13% thru FY2011 Baseline: FY2003	Energy audits, advanced metering ECIP requests, ESPC projects	Reduce by 155,754 MBTU to achieve 20% reduction
Renewable Energy Use Target: 20% by FY2020 Baseline: N/A	Energy	**Renewable Energy Use** Target: 100% by FY2020 Baseline: N/A	**Renewable Energy Use** Actual: 2% thru FY2011 Baseline: N/A	PPA for PV at Armories & RCs Select utility-scale PV developer Complete wave & RE studies Select CR wind developer	Install 600 kW PV for increase to 6%
Biogas Recovery Target LF or WWTP recovery unit in place by FY2020 Baseline: N/A	Energy & Waste	**Biogas Recovery:** Target LF or WWTP recovery unit in place by FY2020 Baseline: N/A	Not currently tracked	No biogas potential	N/A
Green Buildings: Target: 15% of EB inventory meets HPSB MOU by FY2015 Baseline: N/A	Energy & Water	**Green Buildings:** Target: 15% of EB inventory meets HPSB MOU by FY2015 Baseline: N/A	Not currently tracked	Develop report to track this metric	TBD
Green Buildings Target: 100% of new bldgs meet LEED Silver	Energy & Water	**Green Buildings** Target: 100% of new bldgs meet LEED Silver	**Green Buildings** Actual: 100% of new bldgs meet or exceed LEED Silver	Develop report to track this metric	100% of new bldgs meet or exceed LEED Silver, Design (1) Net-Zero bldg

Net Zero Installations Conference Report (cont.)

tions. A number of the Energy track technical presentations focused on applications for district heating/cooling and combined heat and power (CHP). An interesting trend is the use of multiple fuel sources for district heating systems allowing flexibility to use the lowest cost fuel while enhancing energy security and resilience. Technologies discussed included: biomass/ natural gas CHP plus solar thermal hot water; biomass gasification plus CHP; absorption chillers; and ground-source heat pumps.

The U.S. Army Engineer Research and Development Center, Construction Engineering Research Lab (ERDC-CERL) gave an in-depth presentation on the Army's new design guide for central solar hot water systems capable of providing high-temperature hot water for building heating as well as supplying more conventional domestic needs.

Representatives from the Strategic Environmental Research and Development Program (SERDP) and the Environmental Security Technology Certification Program (ESTCP) provided information on funding opportunities. Fort Oregon is evaluating a number of renewable energy and environmental project opportunities at Camp Rilea, Christmas Valley, JFHQ, The Dalles Readiness Center, and Salem AASF and will submit ESTCP pre-proposal funding requests in March 2012.

Fort Oregon delegates met with members of the Energy Initiatives Task Force (EITF) to discuss renewable energy projects. The EITF was launched 15 September 2011 with a mission to assist in the planning, development, and execution of cost-effective, large-scale renewable energy projects (> 10 MW) on U.S. Army installations. The EITF provides installations with technical, business, and acquisition support to accelerate development and achieve "best value" solutions. Fort Oregon will submit EITF project briefs in February 2012 to solicit development support for renewable energy projects at Christmas Valley, Camp Rilea, and Umatilla Army Depot.

Other Energy track presentations included: Energy Master Planning; the critical role of building simulation modeling in Net

(Continued on page 5)

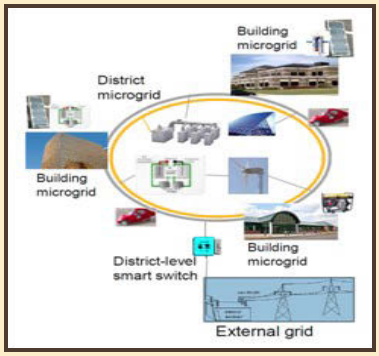
Renewable Energy Technology Grants

On the road to Net Zero, the ORNG strives to tap into innovative funding sources, such as the Department of Defense (DoD) Environmental Security Technology Certification Program (ESTCP). The ESTCP mission is to promote partnerships between academia, industry, military, and other Federal agencies. ESTCP demonstration projects are designed to generate cost and performance data to support rapid deployment and commercialization of innovative technologies. Funding opportunities exist in five major program areas: Energy and Water; Environmental; Munitions Response; Resource Conservation and Climate Change; and Weapons Systems and Platforms. The annual funding opportunity solicitation was issued on 2 February 2012 and pre-proposals are due 29 March 2012. The ORNG is evaluating several potential funding opportunities for ESTCP Energy & Water projects, including:

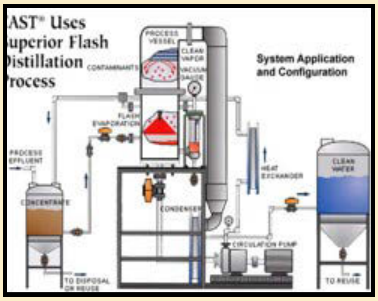
Camp Rilea – Wind, Wave, and Micro-grid with energy storage (up to 50 MW)

Christmas Valley – Utility Scale Solar Photovoltaic (20MW)

Umatilla Army Depot – Solar, Biomass, and other renewable energy projects



Salem Aviation Support Facility-Zero Discharge wastewater recycle-reuse with heat recovery



Net Zero Conference (cont.)

Zero design; and a case study of the first Net Zero public school in the United States. There were a number of vendor exhibits and some products that may have potential applications for "Fort Oregon," including:

1. Radiant heating & cooling panels for hangars, FMS, drill floors, and office areas
2. Geothermal heat pump design, thermal storage, equipment and controls
3. Spray Polyurethane Foam (SPF) insulation for roof and walls
4. Insulated Concrete Forms (ICF)

In her closing remarks, the Hon. Katherine Hammack noted that progress toward Net Zero goals will be emphasized in the Army Review Boards process, and each installation will need to optimize the path to Net Zero based on its unique challenges and opportunities. This concluded a very successful conference just as a winter storm advisory threatened to blanket Chicago with snow.

Energy Conservation :

A Message to Our Facilities' Tenants, Soldiers and Technicians:

Be the One!

Okay, we've all had this happen to us. Whether it was our Drill Sergeant or others, nobody likes it and nothing is really accomplished. No one really wants to be "that **ONE**"! So what does this have to do with the Oregon National Guard Net Zero Initiative? Net Zero is much more than large solar fields or rows of wind turbines. The goal of Net Zero is to produce as much energy as we consume. To accomplish this we much reduce our energy consumption, while increasing our energy production. The most cost effective means to meet our energy consumption reduction goal of 65 percent by 2020 is through conservation.

Wait a minute, you say, I'm not an engineer, I'm not a facility person, I'm just one person. That's the point! We are all one. But multiply the force and we are very powerful.

Let's get serious; energy conservation is also energy security. For example, because of the need to provide air conditioning in tents and other structures at Forward Operating Bases (FOBs) in Iraq and Afghanistan, hundreds of trucks had to transport generator fuel hundreds of miles. This exposed drivers and soldiers to attacks and IED's. However, after spraying the structures with unique foam insulation, there was an 85 percent reduction in energy needed to maintain a comfortable living environment for the troops. Thousands of trucks were no longer required thus reducing the risk to soldiers and drivers. Conservation is energy security.

Let's bring this home to Oregon. What can I do, we are not at war in Oregon? Oh yes, we are. Some of the very people who dictate world energy prices are at war with us and some of our fellow Oregonians' are currently deployed in their region.

So what to do? Very simply but rigorously applied, ONE can make a difference. Human behavior has a huge impact on energy efficiency. In fact, various studies suggest people influence building energy consumption between 12-17 percent. It doesn't take a village, it starts with **ONE**!

Turn out the lights! Are you kidding? Everyone does that. As I assess the OMD facilities, not everyone is turning out the lights. Current lighting technology is not harmed by turning them on and off. When you leave the space, turn off the light. Do the math and you'll see when ONE person at each site turns off their lights, it makes a big impact.

Be the ONE!

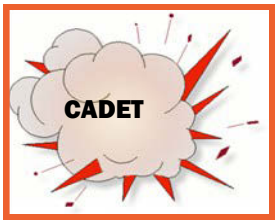
Shut the doors and windows, again very simple. How many times have we hollered at our kids, "We are not paying to condition the outside!"? Think of the heat loss thru a 32" X 84" door left open for 1 minute multiplied by 54 sites. The same applies for rollup doors and hanger doors.

Be the ONE!

Keep the thermostat within the OMD guidelines 70 degrees for heating and 76 degrees for cooling. The older I get the colder I get (snow bird anyone?). Every time we jack up the thermostat, that boiler in the basement has to fire. There are some really fashionable sweaters on the market. This is the Northwest.

Be the ONE!

Lastly, plug loads. What are plug loads you say? As my good friend Patrick MacManus says, plug loads are anything you plug in the wall. One of my favorites are those lovely electric space heaters. Typically each one has a 1500 watt element that just loves to spin the electric meter. If there is a comfort issue, contact your facility manager. If it cannot be solved, there are radiant panels that fit under a desk that only consumes 100 watts. Be the ONE!



How about your computer monitors, printers, and computers? Do they go to sleep at night or are they turned off? What about all those small electric gadgets we all have plugged in? Those blue lights staring at you in the dark are called parasitic power losses.

Be the ONE!

I haven't told you anything that you don't already know. It's just common sense and the discipline to act upon it. As we move forward, conservation is a significant part of attaining our Net Zero goals. Step up, develop the discipline, make a difference.

Be the ONE!

Energy Reduction Dynamics

The National Guard has been working towards meeting Executive order 13423 which is to reduce energy intensity by 3% each year, leading to 30% by the end of fiscal year (FY) 2015 compared to an FY 2003 baseline. Some of the quick and early payoff ways to achieve this goal is to implement lighting controls, establish plug load policies, switch to high efficiency lighting etc. More involved and costly measures needed as further efficiencies are needed include window and door replacement, new roof insulation, new HVAC systems, adding natural day lighting, etc. Ultimately existing structures can likely achieve a 30% reduced energy intensity.
Many existing buildings have an Energy Use Index (EUI) in the range of 90 to 110 kBtu/sf/yr or higher. In Oregon the State Energy Efficiency Design (SEED) program was established in 1991 and was revised in 2001 to require that all state facilities constructed on or after June 30, 2001 exceed the energy conservation provisions of the Oregon State building code by at least 20 percent. This requirement pushes the EUI down to the range of 70 kBtu/sf/yr, give or take.
However, a new building with significant focus on energy efficiency should result in an EUI that could be in the range of 20 to 40.

One of the challenges Oregon NG has had is using a 2003 baseline that was already significantly reduced due to energy policies that had occurred prior to 2003. Much of the quick and early payoff energy achievements had already been done leading to effectively a higher reduction, which is challenging but better supports Net Zero. Another challenge is the new readiness centers being built are two to three time the size of some of the old facilities being replaced thereby increasing the electrical requirement for a given building. It's not uncommon for a 12,000 SF Armory to be replaced with a 40,000 SF Readiness Center. The EUI as a metric for the baseline would overcome the changes in square footage.

The Path to Net Zero Buildings (from Better Bricks)

The path to designing and constructing a Net Zero Energy Building (NZEB) requires commitment, special expertise and collaboration in an integrated design process including all the members of the project team, the owner, the architect, engineers, contractor and the building occupants. The path to net zero can be summarized as follows:

Establish clear and aggressive energy goals and communicate them to all members of the team. All decisions affecting a NZEB need to be made in the context of their impact on energy usage.

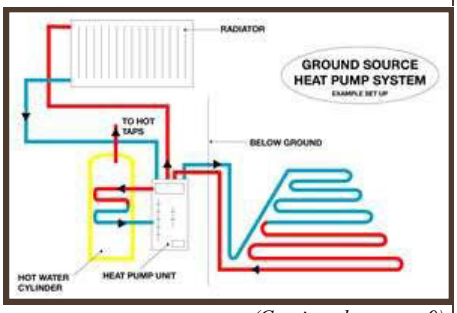
Understand the climate. Sophisticated controls, better equipment monitors and modulation, and other technology allow buildings to be in better sync with the local climate and energy demands throughout the year.

Reduce Energy Loads and Use. Architectural factors such as building orientation, massing and geometry, percentage of glazing, insulation values and daylighting have a huge impact on overall building energy use. Energy efficient equipment and controls further reduce energy use.

Utilize Natural Renewable Energy Resources. Oregon has great natural, renewable resources. The ORARNG has begun to utilize these resources with a ground source heat pump at the Ontario Readiness Center, the installation of over 275 KW of solar photovoltaic arrays throughout the state, improved building envelope and effective controls.

Ground Source Heat Pump Delivers at Ontario Readiness Center

Year-round comfort for the occupants of a building typically requires significant amounts of energy. The conventional approach to maintaining occupant comfort employs separate heating and cooling systems powered by electricity, natural gas, or heating oil. Consider that commercial buildings consume 20 percent of total U.S. energy production and roughly a quarter of that goes to heating and cooling. Energy losses of up to 70 percent resulting from the generation and transmission of electricity contribute to the total energy requirement. But significant energy consumption often presents an opportunity for energy savings. This is where the sun comes in.



The energy produced by our sun is essentially limitless. By harnessing the sun's energy, consumption of traditional sources of energy can be reduced. About 46 percent of the sun's energy striking the earth is absorbed by the earth. Available in massive quantities independent of season, the sun's energy stored in the earth does not need to be transported over long distances, as does the

(Continued on page 9)

Ontario Solar Array Providing Energy and Opportunity

Jan 2011, new solar arrays came on line at Ontario Readiness Center. The state of the art system using Solar World 230 panels, was erected to support the new readiness center, and is the result of State regulation. Oregon State rules require solar technologies be applied to all new governmental construction and retrofits. The rule specifies a minimum of 1.5% of total construction cost be applied to solar technology located at the new construction site. Concurrent with the construction at Ontario were two other facilities whose location were in areas with significantly lower solar resources so legislative approval was obtained and funding transferred in support of a single array where the sun really shines.

The new system includes 5 separate ground mounted arrays installed to demonstrate the effectiveness of several technologies. Arrays 1, 2 and 3 are small tracking arrays. Array 1 is a dual tracker which changes the azimuth of the array seasonally and also tracks the sun across the sky each day. Array 2 is a daily tracker and array 3 is a seasonal tracker. These arrays are small and their purpose is research. Arrays 4 and 5 are larger arrays mounted in fixed supports and because of their size produce the bulk of the energy.

Besides using the array tracking, the panels were equipped with two different types of inverters which change the solar power from direct current to the alternating current used by our equipment. Arrays 1 and 4 use a single inverter to service their respective arrays. Arrays 2, 3, & 5 use micro-inverters integral to each panel.

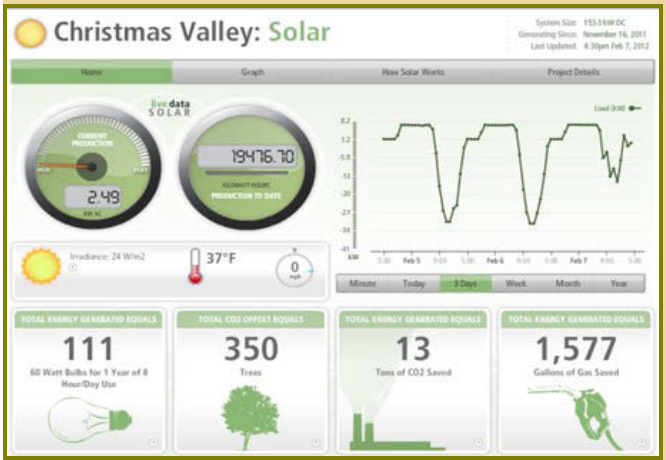
With a year's production data, the efficiency of the various arrays can now be measured. The dual tracker produced 6.08 KWh per day per KW of panel size. The daily tracker 4.90, the seasonal 4.33, and the fixed arrays 4.45 and 4.27. Of interest the single inverter of array 4 outperforms the micro-inverters of array 5.

The Ontario array serves an additional purpose by partnering with the local community college. The school is developing a solar training course and accesses the arrays for training purposes. Additionally, the micro-inverter supplier has just signed on to perform a case study to support the efficiency claims of their inverters. We will develop energy kiosks showing the production of the arrays at the armory, as well as web monitoring. Integrating leadership and education with our net zero energy mission benefits the local community as well as the guard community, and will elevate interest in the technology as well as awareness of other energy and conservation initiatives.

Project Horizon Solar Installation, Christmas Valley, Oregon

Project Horizon Turns on Sun at Christmas Valley

The Oregon Military Department turned on its largest solar array to date with 150.5 KW array of solar panels on the rooftops of the Emergency Response Center in Christmas Valley at the end of January 2012. The project was funded with ARRA funds and was completed with "made in the USA" products , utilizing made in Oregon solar panels from Solar World in Hillsboro and solar inverters made by PV Powered in Bend. The installation consists of over 700 panels of poly-crystalline panels capable for producing 206 MWH per year. The project was designed to facilitate training opportunities with 12 panels wired to a micro-inverter that will allow access to a small portion of the array for training solar professionals. The production of the solar arrays can be viewed at the website listed below.



http://deckmonitoring.com/christmas valley

Ontario Readiness Center's Ground Source Heat Pump (cont.)

energy required for other heating and cooling options. A heat pump connected to a ground-coupled heat transfer loop can be used harness the earth's energy to heat and cool buildings.

The ground-source heat pump (GSHP) uses a refrigeration cycle similar to the process used in window air conditioners to satisfy building space conditioning requirements in an exceptionally efficient manner. The GSHP extracts low temperature ground energy in the winter and amplifies it to a useful level. Cooling is achieved by reversing the process. Heat pump efficiency is expressed as a ratio of energy output to energy input, or coefficient of performance (COP). For each kilowatt (kW) of electricity used to operate a GSHP, the system can transfer 4 or more kW of renewable energy to or from the ground, for a COP of 4 or higher. Compared to conventional cooling and heating equipment, GSHPs produce equivalent heating and cooling capacity and present smaller electrical loads to the utility, resulting in savings of both energy and demand charges. Energy savings of greater than 50 percent is possible when compared with conventional options.

A GSHP was installed at Oregon's newest Readiness Center located in Ontario. A dual-use facility for Charlie Company, 3rd Battalion, 116th Cavalry Regiment, Oregon Army National Guard and the surrounding community, the 36,000 square foot Captain John W. Brown Armory features leading edge green technologies, including a 104 kW solar photovoltaic array. The GSHP system satisfies both cooling and heating needs with an increase in efficiency of 45% over conventional systems.

A mature technology, the primary barrier to expanding deployment of GSHPs is the relatively high initial cost. Drilling or excavating for the ground loop installation can double costs versus conventional systems. But in climates where both cooling and heating are required, the GSHP will almost certainly provide a cost advantage when life cycle costs are included in the selection criteria. Maintenance needs are relatively low since a large portion of the system is underground and typically trouble free. As the cost of energy inevitably increases, the value of savings generated by ground source heat pumps will increase in proportion.

Training is the KEY to Long Term Energy Efficiency

The ORARNG knows that training is integral to excellent performance. This is true for facilities operation as for the primary mission. Free training seminars are available through Portland General Electric (PGE) in concert with Energy Trust of Oregon. Oregon Military Department will integrate supervisory & onsite maintenance staff training with this opportunity. The intent is to begin by utilizing the instruction on heating system, lighting efficiency, controls and measurement and verification.

The energy team has hosted other technology specific training to include: Geothermal, Solar tubes, DDC controls, Thin film PV, Bio mass, LED lighting, in an effort to familiarize ourselves with the technology and it's long term energy savings potential.

There is an upcoming training, free of cost, in March by the North American Board of Certified Energy Practitioners (NABCEP) for Entry Level Photovoltaic Installation Training, a preparatory course towards becoming a certified Solar Photo Voltaic Installer. As the Oregon Military Department continues to focus on developing on-site renewable energy, trained technicians will help maximize our production and our investment in renewable energy.

Where does Fort Oregon need help?

- **Milton-Freewater**: NGB-SRM funding for energy efficiency upgrades-$1.8M
- **BIAK and COUTES:**-ECIP funding for solar PV-$750K
- **The Dalles:** MILCON supplement; ECIP project approval for GSHP-$1.4M
- **Camp Withycombe**: ECIP funding for Solar PV-$1.7M
- **JFHQ:** ECIP funding for GSHP and Solar PV-$1.1M
- **Camp Rilea:** ESTCP funding for Micro-grid with energy Storage- $2.5M; matching funding for studies; funding for pilot wave energy project; funding for electrical substation
- **The Dalles:** ESTCP funding for Net Zero Energy and Water-$3M
- **Camp Withycombe:** ESTCP funding for Energy Efficiency and Energy Security-$3.4M
- **Umatilla:** need funds for NEPA, planning and project management

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Oregon Army National Guard Net Zero Newsletter

VOLUME I, ISSUE 3 MAY 2012

The Oregon National Guard Pursues "Woody Bug" to Protect Oregon Forest and Achieve Net Zero Energy

No, it's not the latest invasive pest to attack forests in Central and Eastern Oregon. ORARNG recently submitted a Feasibility Assessment and grant application for the USDA Forest Service 2012 Hazardous Fuels Woody Biomass Utilization Grant, or "Woody Bug" (WDBUG) as it is commonly known in the industry. The grant would provide engineering design of biomass heating systems at five ORARNG sites: Biak Training Center; Central Oregon Unit Training & Equipment Site (Redmond COUTES); Bend Youth Challenge Program (YCP); Burns Armory, and the Umatilla Training Center. Together, the proposed biomass systems would replace 176,000 gallons of annual propane use with 940 tons of locally produced wood pellet fuel. The average cost for propane is $20.64 per MMBtu (1 MMBtu = 1,000,000 Btu) while the average cost of delivered wood pellets is only $9.40 per MMBtu. This represents more than $181,000 in annual savings. For comparison purposes, ORARNG's average cost of natural gas in Fiscal Year (FY) 2011 was $9.96 per MMBtu which is slightly higher than the cost of wood pellets. Additionally, the price volatility of woody biomass is much lower than for fossil fuels as it is produced locally at seven pellet mills located across the state.

(Continued on page 4)

The Promise of Geo-Thermal Energy

The Oregon Army National Guard (ORARNG) as a participant in the Net Zero Energy program, has embarked on a challenging path to meet the goal of producing as much as or more energy than it consumes by the year 2020. The ORARNG has developed a parallel strategy to reduce energy intensity while planning and developing renewable power generation. Oregon is blessed with significant renewable resources but the potential for those resources varies widely depending on location. Fortunately, the Cascade Range, located on the Pacific Ring of Fire and created largely by volcanic activity, provides an opportunity at specific locations to exploit geothermal heat. Geothermal is a renewable resource with the ideal power generation characteristics of

(Continued on page 7)

INSIDE THIS ISSUE:

Total Solar Renewable Energy Capacity

288 KW

Installed :
Total Energy Produced

377,000 KWH/YR

per year
% toward NZ goal of
20% Renewable Energy

10%

by FY20

Net Zero *Energy* Updates: Fort Oregon Net Zero 2020

*Net Zero **ENERGY** Installations produce renewable energy equal to the energy consumed over the course of a year.*

The Assistant Secretary of the Army for Installations, Energy and Environment (ASA-IEE) has developed the Army's Net Zero Installation Strategy. The goal is for installations to reduce consumption, conserve resources and maximize renewable energy resources with the goal to be net zero, based on net zero energy, net zero water and net zero waste, all striving towards sustainable installations. We are creating a culture that recognizes the value of sustainability measures in terms of mission capability, fiscal sustainability, quality of life, local community relationships and preserving the Army's future energy security.

- **Christmas Valley Solar Project;** With the Phase I Solar PV complete, data will be collected and used for Phase II development. The feasibility study for between 5-20 MW solar array has been finalized by Phase II Evergreen Energy and Oregon Institute. of Technology (OIT). Oregon Military Department has received a proposal from an ESPC, however further study into cost reductions are required. We are working with OIT and the Oregon Department of Energy (ODOE) to determine next steps.
- **Camp Rilea Wave Energy Project**: The interest and potential for wave energy continues to grow. SAIC will submit a feasibility report for wave energy off Camp Rilea in May. Working with the Bureau of Ocean Management, the Oregon Wave Energy Trust, state agencies, Territorial Sea Plan Commission and Clatsop and Tillamook Counties, SAIC will continue work in the regulatory and environmental arena. Additional funding requested from the ASA-IE&E for continued development of this project.(See article pg. 5)
- **Resource Efficiency Managers (REMs):** The REMs have initiated the energy audit for Camp Withycombe.Additionally 18 ORARNG facilities to date have been analyzed to identify low– cost energy efficiency measures (EEMs) and capital improvements that will meet the first tier of the Net Zero Energy Initiative– a 30% reduction in energy usage. The team submitted a BioMass grant proposal to the U.S. Forest Service grant. (See article pg.1)
- **Energy Engineering Analysis Program (EEAP):** Huntsville USACE, PNNL and MCFA returned to Fort Oregon the week of April 2-6 and performed deep energy audits of our facilities in Camp Rilea and the Salem area. Building modeling by PNNL will facilitate accurate energy savings estimation and proposal of economical EEMs for review by Huntsville USACE.. A final report and proposed 1391s will be completed in June.
- **Wind Energy at Camp Rilea-** NREL's team performed a site visit at Fort Oregon the week of March 19th as part of their feasibility studies for wind projects at Camp Rilea and other renewable energy applications throughout Fort Oregon. Significant hurdles were identified with the FAA height restrictions for the Astoria Airport located nearby. Plans are moving forward to install a met tower to record wind data at the site, a grant from the Energy Trust of Oregon is available to offset some of the costs for installation.
- **Polk County Readiness Center–** Construction of the new Readiness Center continues. Current work includes installation of 40 kW Solar PV.
- **Umatilla Army Depot**-Submitted proposal from the USACE Seattle for the continued study of production of renewable energy at the Umatilla Army Depot to include hydrogen storage, solar PV and geothermal.
- **The Dalles Readiness Center–** TVA architects and Hoffman Construction have been chosen for the project. An ECIP funding request was submitted with the goal of a net zero building to include 125kW solar thermal system for space heating and domestic hot water and a ground source heat pump for heating and cooling,
- **Joint Forces Headquarters–** has been moved back to FY-16 for a MILCON Addition. Alteration of the facility that will incorporate renewable energy scope and efficiency upgrades.
- **CFMO-U, May 7-11, 2012**– Members of Oregon's energy team will attend this year's conference focusing on training in Energy Conservation Investment Projects (ECIP), Life Cycle Cost Analysis (LCCA) and Commissioning.
- **Woody Biomass—**is being explored as replacement for propane usage in several facilities. A grant application through Dept. of Forestry was submitted March 31, 2012. With the SIR of 2.28 the payback/return on this investment for this conversion is approximately 11 years.

Net Zero *Water* Updates: Camp Rilea Net Zero 2020

Oregon National Guard Vision

The Oregon Army National Guard (ORARNG) is committed in continuing to advance Camp Rilea as a Net Zero Water Installation. ORARNG adopted and implemented core components of this objective as early as 1978 with the design and implementation of its Wastewater Treatment Plant and effluent beneficial use with aquifer recharge. ORARNG has taken a holistic strategy in continuing this advancement to balance benefits and costs with strong efforts to limit water consumption and return it back to the original watershed.

Oregon National Guard Objectives

- **Foster a Sustainability Ethic**
- **Strengthen Army Operations**
- **Meet Testing, Training, and Mission Requirements**
- **Minimize Impacts and Total Ownership Costs**
- **Enhance Well-Being**
- **Drive Innovation**

Current Accomplishments and Future Initiatives

Water Supply System-

Installed onsite sodium hypochlorite generating equipment for disinfection. This eliminates need for external sourcing, delivery, furthers our self-sufficiency and ability to meet mission requirements.

Continued to demonstrate beneficial use of the water source in preparation for the Certified Water Rights Examination later this year.

Waste Water Treatment Plant-

Installed onsite sodium hypochlorite generating equipment for disinfection. This eliminates need for external sourcing, delivery, furthers our self sufficiency and ability to meet mission requirements.

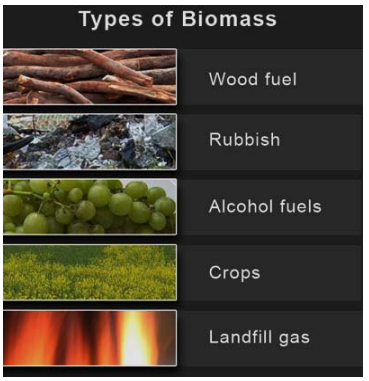
Continued focus on reducing aquifer demand by integrating efficiency and conservation measures to include replacement of fixtures with high efficiency fixtures, expanding the recycled Water Plant to convert 100% of our effluent into Class A water for non-potable uses, converting irrigated turf to native meadow, explore rainwater harvesting and retrofitting storm water systems to utilize rain gardens.

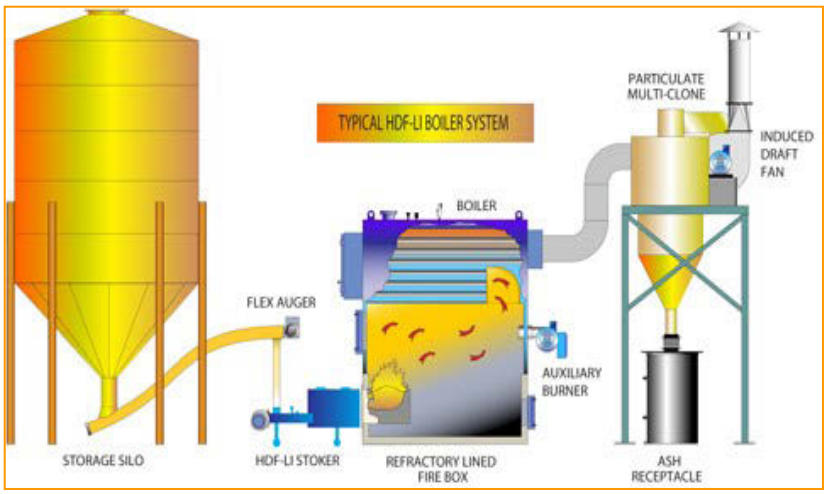
Where does Fort Oregon need help?

- **Milton-Freewater:** NGB-SRM funding for energy efficiency upgrades-$1.8 M– Secured
- **BIAK and COUTES:-**ECIP funding for solar PV-$850K
- **BIAK/COUTES/BEND/BURNS/UMATILLA:** ECIP for Biomass Heating: $4.1M
- **The Dalles:** MILCON supplement; ECIP project approval for GSHP & Solar Thermal-$1.4M
- **Camp Withycombe**: ECIP funding for Solar PV-$1.7M
- **Camp Withycombe:** SRM funding for Energy & Operations Upgrades-$2M
- **JFHQ:** ECIP funding for GSHP and Solar PV- $1.1M
- **Camp Rilea:** funding for engineering and planning for pilot wave energy project
- **Umatilla:** funding for Geothermal study proposed by USACE-$170K
- **Klamath Falls:** Geothermal exploration & well drilling

"Woody BUG" Bio-Mass Grant (cont.)

Biomass refers to natural, renewable, organic materials such as wood, agricultural residues, or municipal waste used to produce space or process heat. Generating heat from biomass is a clean and direct process and is especially cost effective in Oregon where forest and wood product residuals are abundant. Modern biomass heating systems use "phased combustion" to convert wood fuel into an energy-rich gas in a primary combustion chamber. Complete combustion is achieved by introducing oxygen rich air into a secondary combustion chamber. The resulting combustion heat is transferred to water in a heat exchanger and hot water is distributed throughout the building for heating. It is an energy efficient process and modern biomass boilers achieve combustion efficiencies of up to 85 percent.





The major components of a typical biomass wood pellet system include an exterior storage silo to hold wood pellets and an automatic augur to feed pellets to the boiler at a controlled rate based on the building's heating demand. When required by environmental rules, a centrifugal particulate separator may be installed. Optional ash removal systems may be manual or automatic.

Biomass heating systems meet Leadership in Energy and Environmental Design (LEED) requirements for green buildings, and because of their cost effectiveness, biomass heating may potentially qualify for all of the LEED credits available for on-site renewable energy generation. Biomass systems have been widely used and promoted in Europe for decades to reduce reliance on coal and oil. The market for biomass heating systems for commercial and institutional buildings in the United States is growing rapidly as biomass boilers can be easily retrofitted to schools, airports, hospitals, and other facilities located close to a source of waste wood, reducing fuel transportation costs. Starting in 2007, a growing number of biomass heating systems have been installed in public buildings and mission critical facilities throughout Oregon.

Recent installations at other installations throughout the state include:

- Grant County Regional Airport & Joint-Use USFS Airbase, John Day
- Grant Union High School, John Day
- Blue Mountain Hospital, John Day
- Harney District Hospital, Burns
- Burns High School, Burns
- US Forest Service, Bend
- Sisters High School, Sisters
- Estacada High School, Estacada
- Enterprise High School, Enterprise
- Oakridge Elementary School, Oakridge
- Illinois Valley High School, Cave Junction
- Evergreen Elementary School, Cave Junction

Ocean Renewable Energy Feasibility Study

In support of the Army Energy Program "Net Zero Energy" goal, an Ocean Renewable Energy Feasibility study is currently being conducted at Camp Rilea to assess the possibility of installing ocean energy conversion devices to provide electrical power to Camp Rilea and Fort Oregon. Additionally, this work should provide valuable data for other DoD installations that could benefit from this technology.

The five part feasibility study includes: (1) Project Requirements, (2) Regulatory and Permitting Concepts, (3) Resource Assessment, (4) Business and Financial Analysis, and (5) Marine and Electrical Infrastructure. While still in progress, the early reviews are positive for an infrastructure capable of supporting an ocean energy project.

Figure 1:Offshore of Camp Rilea

The five topics are being carefully reviewed and stakeholders are being consulted for their input. For example, within the marine infrastructure portion of the assessment local companies with marine support equipment (barges, tugs, and cranes) have been interviewed to assess local capabilities to support a site as shown in the artist's conception (Figure 1).

An outreach meeting was held in February with local fishermen to discuss the project and review key factors.

For the development of regulatory and permitting concepts, precedents from a variety of other industries are being

(Continued on page 7)

"Woody BUG" Bio-Mass Grant (cont.)

HEALTHY FORESTS·LOCAL FUEL·RENEWABLE RESOURCES·ENERGY EFFICIENCY·ENERGY SECURITY

Forest Health: The use of woody biomass forest residue will contribute substantially to improved forest health and reduced fire danger.

Economic Development: This project builds market demand for woody biomass forest residue and leverages USDA Forest Service investments in pellet mill plants in the region. The counties of Central and Eastern Oregon have unemployment rates much higher than the national average, and significantly higher than Western Oregon. Besides adding jobs in forest fuels reduction and pellet mill plant operations, a significant number of construction jobs will be generated during the installation and construction of the biomass heating systems.

Net Zero: The goals of increased energy efficiency and use of renewable energy sources will be met by replacing 13 percent of ORARNG's fossil fuel energy use with local, renewable, and sustainable fuels.

Energy Security: The Oregon Army National Guard's dual mission to support combat operations and provide emergency disaster response to Oregon communities will be further enhanced by reducing dependence on fossil fuels through substitution of a locally produced, secure, and renewable biomass fuel source.

A Message to Our Facilities' Tenants, Soldiers and Technicians:

Hold Up Your Buddy! Real Energy Security

Energy Security

Remember me, the One talking about turning off the lights when you're out? C-mon Gunny –you say, whoops, wrong Branch. OK, c'mon senior SFC, I thought we did this last issue?

You're right! We did, but have you looked at the gas pump lately? It's time to get out of the foxhole and move into the battle.

Did ya ever wonder why we do this "Energy Security" stuff? Every dime we spend to run our facilities is a dime that does not get spent to run our forces. Tanks don't run well on good intentions.

Think about the following two stories of how we can and are attacking the problem of providing sound energy security.

First, we finally received funds to retrofit a 1950's K style Armory. It's heated by an old 60 year old boiler, has single pane windows, no insulation, poor lighting, and thereby creating a poor working environment. Please, don't everyone jump up and say, it's mine!

The point is, we are replacing the heating system with a new efficient controllable modern system; providing proper insulation to retain the heat and lower the need for a larger heating system; changing the old inefficient lighting to high efficient lighting utilizing natural lighting; and replacing the windows with insulating glazing.

What this boils down to, is bit by bit, we are gradually changing your workspace to enable you to perform at your best and be the most efficient at it.

Secondly, after the Hebrews fled Egypt, they went into battle against a foe. Their leader, Moses, went up on a hill and held his arms up. While he held up his arms, the Hebrews prevailed. When he got tired and his arms dropped, the enemy prevailed. So, two of his buddies, Aaron and Hur, propped up a rock so Moses could sit AND stood by him holding up his arms. Moses's buddies were instrumental in the victory that day.

Were they directly in the fight? No, but they provided valuable support for the battle.

You say, how can I get in the battle? Well, I'm glad you asked.

Be Proactive –When you see the lights on and nobody home, turn them off. At the end of the day, turn down the thermostat, turn off the coffee pot, and turn the lights off. You know the drill.

Be Accountable – Start with your own workspace. I've trained myself to turn off my computer monitors whenever I go into a meeting.

Set an example for your buddies. — Ask them if they are energy aware. If you're the last one out, do a quick check around to ensure stuff is off. Trust me, it all adds up.

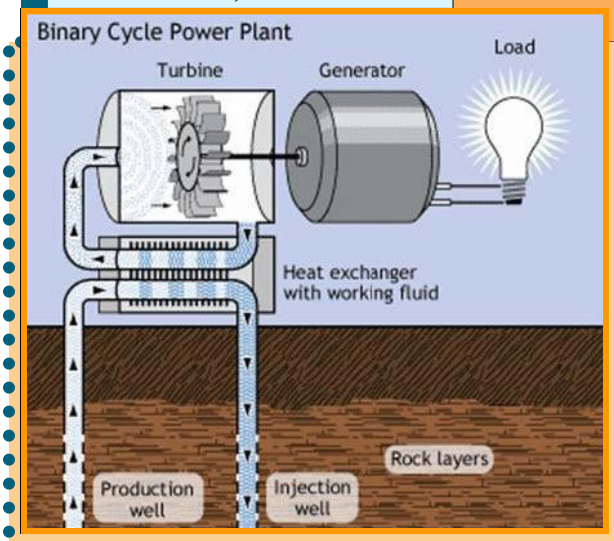
Promote the Cause – Change IS on the way. We live in a world of $4+ gasoline and bad guys in the neighborhood. We are looking for the One's that want to be "change agents" in this challenge.

Accountability is coming out of Command on this matter and we need good people to live and promote energy security. Look for more guidance in the near term.

As I continue to perform the energy audits at our sites, I'm struck by two things. First, it takes a tremendous amount of troops and energy to support one soldier in the field. Secondly, there is a solid group of NCO's that are consciously and consistently engaged in energy security at their workplaces. Keep it up!

It's time to get out of the foxhole and into the battle! Hold up your buddy!

Geo-Thermal Energy (cont.)



high reliability and capacity factor, minimal environmental impact, zero fuel cost and the ability to recover waste heat for direct heating. The area typically presents moderate temperature hydrothermal heat, ranging from 195° F to 300° F, which when available as a stable resource, can be converted in binary power plants to baseload electricity. It is thus one of the few renewable resources capable of replacing coal-fired power generation. A well known geothermal hot spot exists in the Klamath Falls area of southern Oregon. The local hydrothermal reservoir has been widely used by the city of Klamath Falls since the early 1900's for industrial and commercial process heating and deicing streets and sidewalks. Additionally, since 2009, the Oregon Institute of Technology has used hydrothermal energy to heat its buildings and generate 280 kilowatts of electricity in a binary power plant for campus use. The ORARNG will explore the feasibility of a similar operation in the same area in collaboration with the Air National Guard at Kingsley Field.

Although more than 600 geothermal wells in the area produce heat, the substantial risk that an adequate resource in the specific location will not be found at Kingsley Field requires careful planning. With a conventional fossil fuel power plant economic risk is closely associated with uncertainty in the future cost of fuel. On the other hand, the cost of geothermal power production is heavily weighted up front with the expense associated with exploration and well drilling. The moderate water temperatures translate to low conversion efficiency requiring larger sized equipment than with the fossil fuel-fired equivalent so power plant costs can also be significant. If successful, generating cost could be in the range of $0.06 - $0.12 per kilowatt-hour (kWh) during plant amortization and as low as $0.05 per kWh once costs are recovered. Success means stable electricity prices over the life of the plant as well as firm power generation from an inside-the-fence renewable source. With geothermal energy the promise of Net Zero energy and energy security exists in the same package.

Ocean Energy Study (cont.)

reviewed and considered, key regulatory topic areas identified (including the environment and socio-economic impacts), and a number of permitting scenarios outlined.

Oregon has been identified as an ideal location for ocean energy conversion based primarily on its tremendous wave resource, available wind resource, and coastline transmission capacity. Oregon also has strong, local community involvement in ocean policy matters. Oregonians are vigorously protective of our maritime-based economy including fishing and crabbing, recreational activities such as surfing and kite boarding, and protection of the sensitive marine species that traverse the coastal waters. These policy, socio-economic and environmental factors must be addressed alongside the technical feasibility factors when accessing the feasibility of an ocean energy generating facility at Camp Rilea.

To address the intersection of these complex factors, the contractor supporting the Oregon Military Department is participating in the development of the Oregon Territorial Sea Plan. The Plan is designed to coordinate with multiple stakeholders to create an ocean policy for the State. Supporting this initiative, a public outreach meeting of the Territorial Sea Plan Working Group was held at Camp Rilea in February. Additional meetings were held throughout Oregon in February and March.

The Feasibility Study project is scheduled for completion in May, however the process for wave energy development in Oregon will continue for the foreseeable future. With additional resources, we hope to continue this work with wave resource studies and engineering specific to Camp Rilea.

Innovative Partnerships –A Way Forward

The Oregon Military Department has to innovate to achieve their Net Zero Energy 2020 goals. The opportunity for innovative partnerships with other state agencies and industries here in Oregon offers the chance to maximize our efforts, deploy effective business contracts and utilize resourceful approaches to project implementation. The Oregon Department of Transportation's (ODOT) Office of Innovative Partnerships has deployed effective strategies to achieve their goals. ODOT has successfully developed their Baldock Solar Highway with a public/private partnership and is building partnerships for a West Linn project and their Sunrise Corridor Solar Highway project. Sunrise Corridor will be built along the property line of Oregon Military Department's Camp Withycombe in Clackamas, OR.

The Baldock solar project was built with a public/private partnership between ODOT, PGE and the Bank of America. Bank of America served as the tax equity partner, able to maximize Federal Tax Credits (FITC), Accelerated Depreciation (MACRS) and state tax credits (BETC). ODOT created a Solar Site Lease Agreement with PGE, who served as the developer of the projects. PGE sold the project to BofA, as a sale/leaseback contract, for a term not less than six years, as required by federal laws for using the FITC and MACRS tax benefits.

Additionally, ODOT created a unique contract for this project . Working with the Oregon DOJ, the business contract separates the energy produced (kWh) from the environmental attributes (RECs and Carbon credits). The contract stipulates how the environmental attributes are proportioned based on the contributions of each party. The RECs are registered with the Western Renewable Energy Generation Information System (WREGIS). The Oregon Public Utilities Commission has staked a value of $30/Metric Ton on carbon credits.

Utilizing a "values-based" procurement strategy, ODOT was able to craft their procurement documents based on the values and standards of the state agency, resulting in higher efficiency in the products purchased, while negotiated agreements reduced risk, resulting in lower costs to the project. This contrasts to lowest bid procurement which often results in additional cost provisions in the contract that mitigates the risk to the contractor, without the assurance of highest value to the agency.

ODOT would like to brainstorm with the OMD on how to partner on the Sunrise Solar Highway. ODOT has already been a trailblazer with DOJ by creating business contracts that provide energy, environmental attributes and risk mitigation. ODOT plans to have a 2MW field installed, partnering with OMD would help in maximizing the solar installation (with a possible goal of 5MW), reducing cost and partnering in a unique approach to achieving renewable energy production, maximizing the environmental attributes and reducing the risks of participating in the implementation of new technologies and procedures.

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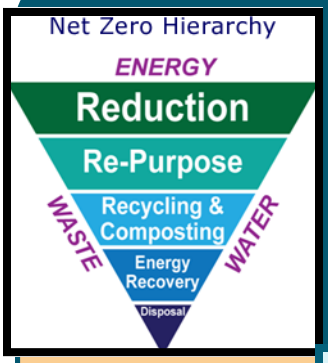


Oregon Army National Guard Net Zero Newsletter

ISSUE 4 JANUARY 2013

Geothermal Power Economics & Risk

INSIDE THIS ISSUE:

by FY20 Total Solar Renewable

315 KW

Energy Capacity Installed :

412,000 KWH/YR

Total Energy Produced per year

% toward NZ goal of

10%

20% Renewable Energy by FY20

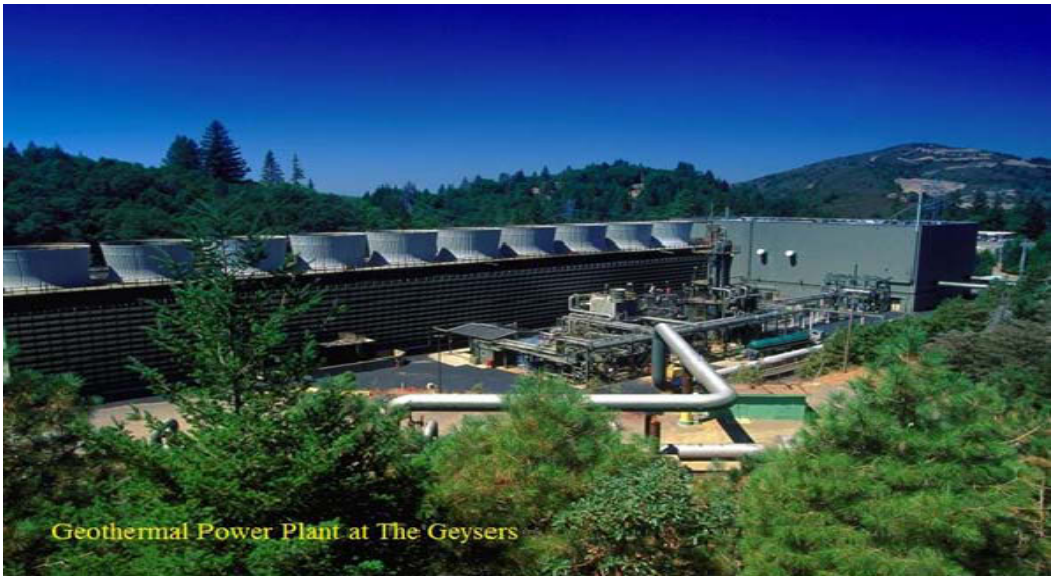
In the last edition of the ORARNG Net Zero Newsletter we described our early stage look into developing a geothermal combined heat and power plant at Kingsley Field in Klamath Falls, Oregon. This article discusses economic rules of thumb and financial risks associated with geothermal power projects.

Renewable power and heat generated from geothermal energy reservoirs offers the potential for both Net Zero energy and energy security. A federal facility that taps into an adequate geothermal hot spot can enjoy electrical and heat energy from an inexhaustible renewable resource, achieve electrical grid independence and become insulated from future energy price increases and greenhouse gas emissions cost. Given these benefits, the potential value of geothermal energy is obvious. However, it is the technology's cost and financing risks that determine its viability.

Similar to other renewable energy technologies, geothermal power generation has high upfront costs and low long term operating costs compared to conventional fossil fuel power plants where the opposite profile exists. However, unlike solar or wind, long geothermal project development lead times coupled with the need to spend a large part of the initial investment on proving resource potential can create a high degree of financial uncertainty. This geologic exploration risk is largely responsible for the fact that geothermal power production in the U.S. provides less than 1 percent of the country's total generating capacity.

To illustrate the project risks as well as opportunities for risk mitigation, let's take a look at the development stages and potential costs of a small scale (5 megawatt [MW]) geothermal power plant. Let's assume the project will be developed on a site owned and occupied by a federal agency. Keep in mind that surface land rights do not necessarily extend to water and geothermal assets. Subsurface rights acquisition in some form may be necessary. Total development costs can equal or exceed $5000 per kilowatt of installed capacity.

(Continued on page 6)



Geothermal Power Plant at The Geysers

Net Zero *Energy* Updates:

*Net Zero **ENERGY** Installations produce renewable energy equal to the energy consumed over the course of a year.*

The Assistant Secretary of the Army for Installations, Energy and Environment (ASA-IEE) has developed the Army's Net Zero Installation Strategy. The goal is for installations to reduce consumption, conserve resources and maximize renewable energy resources with the goal to be net zero, based on net zero energy, net zero water and net zero waste, all striving towards sustainable installations. We are creating a culture that recognizes the value of sustainability measures in terms of mission capability, fiscal sustainability, quality of life, local community relationships and preserving the Army's future energy security.

Christmas Valley Solar Project: Preparing for Power Purchase Agreement negotiations with the local utility for the 150 kW PV system installed in Phase 1. Meetings have been held with several developers and work has begun towards an RFP for Phase 2 development of PV in the range of 5 MW – 20 MW.

Camp Rilea Wave Energy Project: Wave energy development is primarily focused on the planning processes for defining areas of wave energy development. Camp Rilea has been identified as one of the proposed five to seven sites along the Oregon Coast This is being done at the state level for the Territorial Sea and at the federal level through BOEM, NOAA, and others for the Outer Continental Shelf. At the state level, development maps are expected to be completed in January 2013.

Resource Efficiency Managers (REMs): The REMs are identifying the potential for low- and no-cost energy conservation measures and has been instrumental in submitted ECIP proposals for biomass boiler installations and a Fort Oregon statewide lighting upgrade project. ORARNG was awarded a U.S. Forest Service grant of $250,000 for the design of biomass boilers at 5 sites. When installed, the new boilers will replace 176,000 gallons of propane with 940 tons of locally produced wood pellet fuel and an estimated savings of $170,000 per year.

Energy Engineering Analysis Program (EEAP): Energy audits conducted by USACE Huntsville, MCFA and EBL Engineers have been completed and final audit report submitted for the Camp Rilea and Salem area facilities.

Wind Energy Project at Camp Rilea: A met tower installation for Camp Rilea is being put out to bid. The intent is to gather 12 to 18 months of data to be prepared to install medium size wind turbines not to exceed the 239 ft tip height limit AMSL as defined by the FAA.

Polk County Readiness Center: The new COL James W. Nesmith Readiness Center was dedicated on 12 October 2012 and includes a 36 kW rooftop solar PV system. The Readiness Center earned a LEED Gold facility rating and is projected to have an EUI of under 30.

Camp Withycombe Lighting Projects: A comprehensive lighting upgrade of interior and exterior spaces at Camp Withycombe, estimated to reduce energy consumption annually by 700,000 kWh, is in design. In addition, the Oregon Military Museum, a former armory, will receive new high efficiency lighting, including an LED track system in the main exhibit hall.

The Dalles Readiness Center: Contract was awarded and construction has begun. A minimum of 50 kW solar PV is planned but the final installed capacity will likely be larger. A number of energy upgrades such as a ground source heat pump and increased insulation are being programmed into the design made possible primarily through a partnership with Columbia Gorge Community College and some state funding. The goal is to make this our first Net Zero Energy Readiness Center.

Geothermal Energy Development: Geothermal energy resource assessment for the potential of geothermal power production are ongoing at Christmas Valley and Kingsley Field in Klamath Falls.

Net Zero *Water* Updates: Camp Rilea Net Zero 2020

Oregon National Guard Vision

The Oregon Army National Guard (ORARNG) is committed in continuing to advance Camp Rilea as a Net Zero Water Installation. ORARNG adopted and implemented core components of this objective as early as 1978 with the design and implementation of its Wastewater Treatment Plant and effluent beneficial use with aquifer recharge. ORARNG has taken a holistic strategy in continuing this advancement to balance benefits and costs with strong efforts to limit water consumption and return it back to the original watershed.

Oregon National Guard Objectives

- **Foster a Sustainability Ethic**
- **Strengthen Army Operations**
- **Meet Testing, Training, and Mission Requirements**
- **Minimize Impacts and Total Ownership Costs**
- **Enhance Well-Being**
- **Drive Innovation**

The Oregon Army National Guard has taken the water supply at its Camp Rilea training site off the grid.
With a new water recycling facility and basins that return treated water to an underground aquifer, the Warrenton facility is working its way toward net zero water. The idea is to continually recycle the water used on site to preserve local water resources. "It reduces our demand on the freshwater aquifer," said Jim Arnold, an environmental restorations manager with the Oregon Army National Guard. "If we take 5 gallons out and recycle 4 gallons, we're only having to continually pull one gallon out. We're pulling water out of the aquifer, but we recharge that same aquifer we took it out from." To move closer toward net-zero water – recycling all of the water it uses – Camp Rilea is also working on water efficiency and conservation plans. A water balance study showed 59 percent of the water use on the base comes from domestic plumbing – showers, sinks and toilets. The kitchen uses 18 percent of the total, irrigation uses 10 percent, vehicle washing consumes 3.6 percent and laundry takes 3.4 percent. The site will reuse its own treated wastewater for irrigation, laundry and vehicle washing. Water pulled from the aquifer can go to an on-site treatment plant to bring it up to drinking water quality. "At Camp Rilea we can operate off the grid," Arnold said. "The new system allowed us to sever our tie to the municipal supply. Instead, we have a water supply system that draws water from the aquifer that we sit on through water withdrawal wells, treats it to drinking water standards and distributes it through our channels." Arnold said even before the net-zero initiative, the water used at Camp Rilea didn't even make a dent in the local aquifer. But the pilot project will help demonstrate techniques that other military sites can use to reduce their water footprints.
The project is part of **a much broader initiative** at 19 Army sites across the country that targets net zero energy, water and waste. The Oregon Army National Guard volunteered to try for net zero energy at all 40 of its installations across the state. Numerous solar projects and possible wind, wave and biomass energy projects are in the works to achieve that goal. The military has been treating its own water and reusing it for irrigation at Camp Rilea since 1978. The net-zero water program enhanced that process by adding a water recycling plant and "rapid infiltration basins" that send more treated water back to the aquifer, 200 feet underground. "It's a closed-loop process," said Arnold. "Whatever we take out we put back into the aquifer. We added a recycled water plant to treat that water to the point where it's usable for other purposes on the post. We can use it for anything except drinking and filling a pool."
John DeVoe of Oregon Water Watch said to be truly net zero, the military will have to put more water back into the aquifer than they take out to account for evaporation and consumption of the water used on the site. Arnold said the new rapid infiltration basins are designed to reduce the amount of water that evaporates using spray irrigation. "If you look at the army's net zero definition," he said, "it calls for us to use the water from the aquifer that we sit on, use it efficiently, and return it to the same watershed so we're not depleting the surface water resources in that region."

Retrofitting Existing Facilities Without Capital Funds

ENERGY SAVINGS PERFORMANCE CONTRACTS

SITUATION:

This Net Zero Newsletter shares great ideas and projects, but how do we get them funded? An energy savings performance contract can provide substantial benefits to the Oregon National Guard to fund projects without the need for upfront capital.

As part of the Army pilot program, our organizational goal is to be net zero energy by year end 2020. To meet that goal, the Oregon National Guard needs to reduce our energy consumption by 65 percent from baseline year fiscal year (FY) 2003. That's a healthy challenge considering the current state of federal and state budgets. Combine the budget woes with an aging facility infrastructure, and the challenge appears daunting.

WHAT IS ESPC?

A significant part of the solution may lay with the use of an Energy Savings Performance Contract (ESPC). ESPCs allow state agencies to accomplish energy savings projects without upfront capital costs or special funding appropriations.

An ESPC is an agreement between an energy services company (ESCO) and a building owner. Oregon defines ESPC as "a public contract between a state agency and a qualified ESCO for the identification, evaluation, recommendation, design and construction of energy conservation measures, including a design-build contract, that guarantee energy savings or performance." At its core, an ESPC is a "design-build" contract with some highly tailored specializations. The owner uses the energy cost savings to pay off the loan that financed the energy conservation projects. The ESCO guarantees that the improvements will generate energy cost savings sufficient to pay for the project over the term of the contract.

HOW DOES IT WORK?

After you enter into an agreement with a private ESCO, it will identify and evaluate energy-saving opportunities and then recommend a package of improvements to be paid for through savings. The ESCO will guarantee that savings meet or exceed annual payments to cover all project costs—usually over a contract term of 10 to 15 years. To ensure savings, the ESCO offers staff training and long-term measurement and verification services.

Many types of building improvements can be funded through existing energy budgets - energy management systems, interior and exterior lighting, boiler/chiller replacement, repair of hot water distribution systems, high-efficiency HVAC systems or any other system that's fits within your financial criteria.

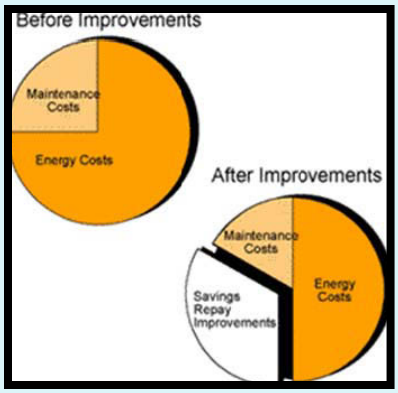
ESCOs typically work under a performance guarantee that shifts the risk **to** the ESCO. The ESCO provides guaranteed project cost, guaranteed savings, and guaranteed equipment performance. Your guaranteed energy savings pay for the upgrades, so you have no upfront costs. If energy savings don't materialize, the ESCO pays the difference, not you.

WHAT IS THE BENEFIT TO THE GUARD?

Energy savings performance contracts help the Oregon National Guard meet energy efficiency, renewable energy, and water conservation reduction goals by streamlining contract funding for energy management projects. The streamlined process provides multiple benefits, including:

1. Increased quality and value through:

- Access to private-sector expertise in energy efficiency, renewable energy, water conservation, and reduced emissions
- Built-in incentives for ESCOs to provide high-quality equipment, timely services, and thorough project commissioning
- Infrastructure improvements to enhance mission support
- Healthier, safer working and living environments
- Flexible, practical contract and procurement processes to ensures our project, our way



2. Smart project management that:

- Ensures building efficiency improvements and new equipment without upfront capital costs
- Funds energy improvements without relying on special appropriations
- Guarantees energy and related operation and maintenance cost savings
- Enhances the ability to plan and budget energy, operation, and maintenance accounts minimizes vulnerability to budget impacts due to volatile energy prices, weather, and equipment failure.

CONCLUSION: When executed correctly, an ESPC can have many advantages over traditional contracting methods. From a taxpayer perspective, an ESPC used by the Oregon National Guard can provide a vehicle to quickly achieve substantial energy savings with limited fiscal or budgetary impacts – because large projects are financed via energy savings, not the capital budget. An ESPC is a powerful arrow in the quiver that moves the Oregon National Guard closer to achieving our net zero energy goal.

Energy Conservation

Have you gone LoCo?

Easy there big fellow! You talking to me?

I make a call and pretty soon some 105's start dropping around here real quick!

Relax Gunny! Not loco crazy, LoCo as in Low Cost/No Cost. LoCo is the new term for ***Low Cost/No Cost energy conservation measures.*** LoCo does not, strictly speaking, include the "No Cost" aspect. But to keep things simple, we are going to accept the new lingo. Now LoCo could be considered low hanging fruit in some cases, but not exactly this type of low hanging fruit. LoCo measures are important because they result in real time energy savings and value. Let me give you three examples of LoCo energy conservation to make my point.

We have a large warehouse that is heated by gas-fired unit heaters hanging from the ceiling. Currently, the heat runs 24/7 during the heating season at 70°. By simply converting to programmable thermostats, the heaters will be setback to 58° after working hours and on weekends. The savings will pay for the project within two months while saving $1,082 per year per thermostat! LoCo!

During the Veterans Day Holiday, I reviewed numerous sites and discovered that a 100 horsepower air compressor servicing multiple types of equipment was running. In fact, it had run the whole weekend. Shutting that compressor off for the Veterans Day Holiday would have saved $391! Let's extrapolate that and conclude that if the compressor is diligently shut off for 12 hours per day plus weekends and holidays, the Oregon National Guard would save $5.43 per hour or $30,599 per year. Policies are now being written to ensure that the compressor only runs during occupied times. LoCo!

Here's another easy fix. An older k-style armory drill hall was built with a 24 inch square louvered vent in the roof. Obviously, when it got hot during the summer, the attached chain was pulled and the vent opened releasing trapped hot air. However when I visited the armory in the dead of winter, I looked up at the ceiling and saw beautiful blue sky through the open 24 inch vent. I followed the chain, reached up and pulled on the chain, and the blue sky disappeared. I did not calculate the savings but it's pretty clear that we were blowing heat right out of a 24 inch hole in the roof. LoCo!

The best approach to developing LoCo's is a knowledge based approach.
Here are a few thoughts for you Readiness NCO's and State maintenance workers. Know your buildings, their mission, processes, deficiencies, schedules and needs. Know your people, in the buildings, in the shops, utilities, and throughout the whole site. Don't be afraid to ask a little three letter question – "why"? Why are we doing this this way? Why is the heat on when the overhead doors are open? Why do we keep this machine warm when it is only used one a week? There may be a valid reason, but its common sense to ask "why"?

Many LoCo's are brought to the Energy Team from site personnel. The compressor issue described above was brought forward by a maintenance worker asking – why? Another State maintenance worker was experiencing a high failure rate of compact fluorescent lighting in his drill hall costing the Guard $1,200 per year. The Energy Team is searching out a cost effective solution.

A walkthrough of armories showed that many fitness centers have the heat jacked up and the lights left on. LoCo! Many times as I walk around the larger Readiness Centers, unoccupied conference room lighting is left on. Turn the lights off as you walk by. LoCo!

The sustainability culture the Oregon National Guard envisions is one in which every member of each installation carries out their duties with full consideration for energy and water efficiency, minimizing waste and emissions to the environment and the cost of doing business. Business as usual is no longer acceptable. To create such a culture will be an enormous undertaking, but with your help we can do it.

We are continuing to invest in capital energy efficiency projects and are seeking funding for our energy management programs but what we urgently need is a behavioral "ground swell" to create a culture of sustainability across the Guard.

Please contact LTC Safe, Kenneth.Safe.mil@mail.mil or Larry Hamburg, Larry.J.Hamburg.ctr@mail.mil on the Energy Team with any suggestions or input. Let's get **LoCo!**

Geothermal Power Economic & Risk cont

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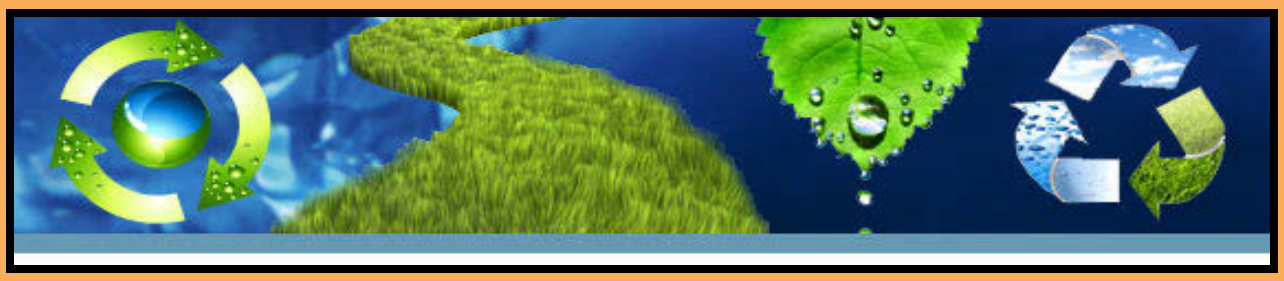
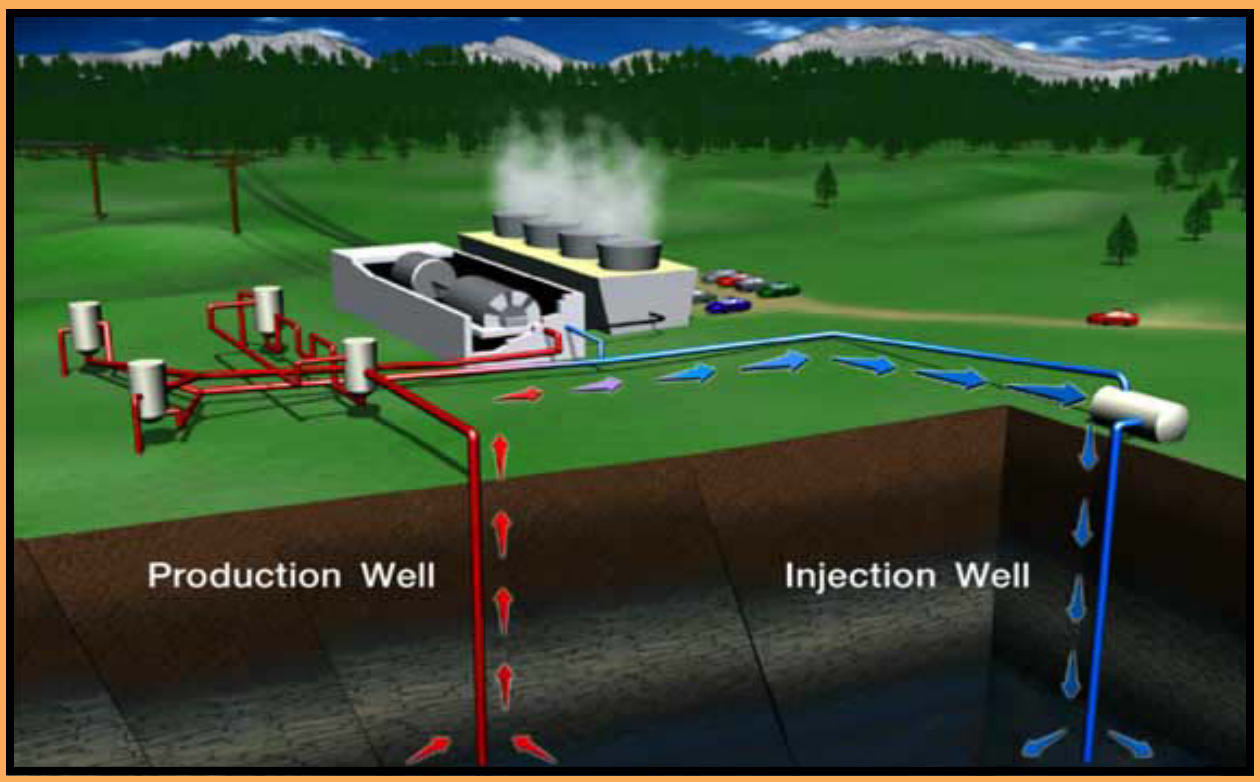


The first stage of geothermal exploration uses relatively non-invasive geophysical survey techniques to characterize geothermal temperature gradient, flow rate and reservoir location. Improved technology, such as better survey data accuracy and interpretive software would help lower the percentage of unsuccessful exploratory drilling (as high as 75 percent) and its associated cost. The survey stage can take 2 years and use 5 percent of development costs whereas the next stage – exploratory drilling - can consume 60 percent or more of the costs in about the same period of time. Obtaining financing when the odds of success are so tenuous represents the greatest challenge to geothermal project development.

The power plant design, construction and commissioning phase can commence once an adequate hydrothermal reservoir is located and production and injection wells are drilled. Expect this phase to require 2 years and 30 to 40 percent of total costs. Additional expense should be planned for environmental assessment, utility interconnection study and electric grid connection infrastructure.
The resulting power plant operating at full capacity will generate electricity at a cost of $0.08 to $0.12 per kilowatt-hour given the above project development costs. Alternatively, it may be possible to work with a third party developer that accepts the development, ownership and investment risks and provides energy under a long term Power Purchase Agreement (PPA). The energy price will then be determined by the developer's costs and margin, utility payment for purchase of excess generation and the value of renewable energy credits (where applicable). Ideally, geothermal power under the PPA will be provided at a discount to the retail rate, stable over the contract term and guaranteed in regard to availability.

According to the U.S. Geological Survey, the potential exists to increase U.S. geothermal power from 3,000 MW to 40,000 MW using existing technologies, largely because of the western states' alignment with the Pacific Ring of Fire. As exploration technologies improve and development costs and investment risks trend lower, geothermal energy and the benefits provided by firm renewable power generation will experience much greater adoption.



Redmond Armory Stays Cool Under the Sun

Installing solar photovoltaic or PV power can be done in several ways to facilitate reaching the Net Zero Energy goal. The most obvious application is the utility scale PV farm, which provides numerous benefits including the option to use a third party developer who finances, owns and operates the PV asset. On the other end of the scale, PV can be exploited in the way it has been used since the early days of the technology – to power small discreet electrical loads. At its armory in Redmond, the Oregon Army National Guard contracted with Northwest Renewable Energy Corp (www.nwrec.us) to install their SunCooler product, a roof ventilator using a DC motor and fan powered by an integrated PV module.

Two existing ventilators on the armory drill hall roof were retrofitted with SunCoolers, using the existing curbs and roof flashing. The units are operated by a circuit interlocked with the existing ventilator air damper control that is wired to a toggle switch within the building. The ventilators are used during the day as needed to exhaust excess heat at ceiling level. After 6 months of operation, the SunCoolers have done that job well, each exhausting air at a rate of up to 2500 CFM while consuming no electricity.

The SunCooler is made from U.S. parts assembled in Oregon. In addition to heat extraction, models are available that provide air destratification, thermal balance with fresh air and fresh air night flush with either hard-wired or wireless Bacnet compatible controls.

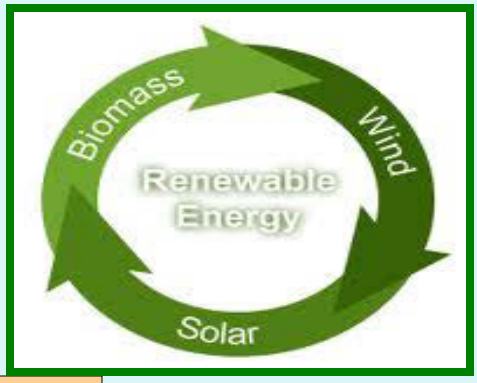
Enabling Through Legislation

The Oregon Military Department (OMD) is committed to a long-term clean energy development program. This activity primarily supports the Energy Security initiative of the U.S. Department of Defense (DOD), and in particular the Army's Net Zero Installations program. DOD will depend on National Guard units across the country to provide some of their goal of 3000 megawatts (MW) of renewable energy generating capacity. It's the intent of OMD to remain a leader in clean energy development for years to come. OMD's clean energy development program serves multiple State government missions such as the State's 10-year energy plan and goals of the Oregon Department of Energy. The program provides benefits to the people of Oregon in the following ways:

- support high-quality military training for Oregon National Guard and Reserve soldiers;
- enhance OMD's participation in state and national emergency management programs;
- advance Oregon energy policy by accelerating the construction of utility-scale renewable energy facilities;
- promote economic development in Oregon by stimulating business development opportunities for the state's clean energy industry and by creating jobs in local communities; and
- support clean energy research, education and training in Oregon.

Legislation can be a key enabler towards meeting this goal. With 55 Oregon National Guard sites and 17 utilities supporting these sites, the situation is in stark contrast to a typical Active Component Installation with one utility provider. Generally speaking there are four good renewable resource sites on OMD property where utility scale electricity can be produced. However, most of the Readiness Centers throughout the state don't have direct access to these RE sites. There needs to be a way to virtual net meter energy across the state.

Utilities in Oregon are not required to offer a standard service option that is designed to supply renewable energy to commercial and industrial customers. Furthermore, existing state policies do not provide the flexibility that large customers need to buy renewable energy in the competitive marketplace. OMD would directly benefit from a standard utility service that enables large consumers to self-supply renewable energy for their operations. OMD could indirectly benefit from such a service by forming renewable energy development partnerships with other large consumers of electricity in the state, possibly including energy-intensive data centers.



OMD is proposing legislation for the creation of a hybrid of virtual net metering (VNM) and feed-in tariff (FIT) business practices that will enable large consumers of electricity to self-supply renewable energy for their Oregon operations. If successful, this will enable OMD to be the off taker of renewable energy at multiple facilities throughout the State that is produced on a limited number of OMD sites where the resource is best and where there is adequate space to develop that resource.

ORARNG Points of Contact

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LTC Ken Safe 503-584-3503

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Net Zero Water Project Lead
Mr Jim Arnold 503-584-3551

Oregon Military Department
CITIZEN. WARRIOR. DEFENDER OF FREEDOM.
Courage and Commitment

Oregon Military Department
Phase 1hearings - Ways and Means Subcommittee on Public Safety
Secretary of State Audits received in past three years (March 2009- present)

Date issued	Audit	Finding	Agency actions
Dec 2009	Armory rental program (hotline)	a. Rental of an armory (K Falls) without pre-approval or rental contract. b. Unauthorized subletting at same armory. c. Cash deposits not made timely. d. Inadequate justification for rate changes.	OMD adopted Secretary of State recommendation that policy deviations and rate adjustments are documented in the contract files.
Dec 2009	Federal Compliance: Military Operations & Maintenance Projects, Year Ended June 30, 2009	Several ARRA-funded construction contract agreements did not contain the required Buy American language. The requirement was added after OMD began executing the projects..	OMD ensured that subsequent procurements expended with ARRA funds included the "Buy American" provision.
Jan 2010	Selected Payroll, Fixed Asset and Special Payment accounts for Year Ended June 30, 2009	No findings.	
Mar 2010	Federal Compliance: Military Construction, Year Ended June 30, 2009	Funding source not clearly documented for equipment purchases.	OMD now prepares separate payment requests for equipment funded apart from federal construction funds.
Jan 2011	Selected Payroll and Fixed Asset accounts for Year Ended June 30, 2010	No findings.	

EXHIBIT B (continued)

Oregon Military Department
April 2013 hearings - Ways and Means Subcommittee on Public Safety
Secretary of State Audits received in past three years (March 2009- present)

Date issued	Audit	Finding	Agency actions
Mar 2011	Federal Compliance: Military Construction and ARRA-Military Construction, Year Ended June 30, 2010	OMD was not checking potential contractors against the Excluded Parties List System (EPLS).	OMD verifies the suspension and debarment status of potential contractors on the EPLS and collects a certification prior to awarding contracts.
Dec 2011	Selected Payroll and Fixed Asset accounts for Year Ended June 30, 2011	No findings.	
Feb 2012	Personal Services Contracts awarded to former state employees (ten agencies included)	No findings.	
Mar 2012	Federal Compliance: Military Construction and ARRA-Military Construction, Year Ended June 30, 2011	No findings on compliance. However, OMD did not separately identify ARRA federal expenditures on the Schedule of Expenditures of Federal Awards (SEFA) due to the way the financial data was pulled.	The accounting query used to pull federal expenditure data has been modified to ensure that ARRA funds are specifically identified on the SEFA report.
Jan 2013	Selected Payroll and Fixed Asset accounts for Year Ended June 30, 2012	Construction in Progress account should be reviewed and adjusted downward for completed projects.	OMD will research Construction in Progress account balance to record projects completed in the current year and reconcile the amount for prior years.

OREGON MILITARY DEPARTMENT
2013-15 BIENNIUM: PHASE 1 WAYS & MEANS PRESENTATION
LIST OF NEW HIRES IN 2011-13 BY CLASSIFICATION

CLASS	CLASS DESCRIPTION	# hired at step 2 or below	# hired above step 2	Total per Classif.	JUSTIFICATION FOR SALARY OVER STEP 2
C0104	OFFICE SPECIALIST 2	1		1	
C0107	ADMINISTRATIVE SPECIALIST 1	1		1	
C0118	EXECUTIVE SUPPORT SPECIALIST 1		1	1	Prior Salary History
C0435	PROCUREMENT AND CONTRACT ASST	1		1	
C0723	MILITARY LEASE AGENT	0		0	
C0758	SUPPLY SPECIALIST 1		1	1	Prior Salary History
C0861	PROGRAM ANALYST 2		1	1	Superior Qualification and Difficulty Filling the Position
C1216	ACCOUNTANT 2		1	1	Superior Qualification and Difficulty Filling the Position
C1243	FISCAL ANALYST 1		1	1	Prior Salary History
C1483	INFO SYSTEMS SPECIALIST 3	1		1	
C1484	INFO SYSTEMS SPECIALIST 4	1		1	
C4003	CARPENTER		1	1	Prior Salary History
C4005	PLUMBER		1	1	Prior Salary History
C4008	ELECTRICIAN 2		0	0	Prior Salary History and Difficulty Filling Position
C4012	FACILITY MAINTENANCE SPEC	0	0	0	Prior Salary History and Superior Qualification
C4014	FACILITY OPERATIONS SPEC 1		0	0	Prior Salary History
C4034	FACILITY ENERGY TECHNICIAN 3	1		1	
C4038	PHYSCL/ELECTRNC SECRTY TECH 2	1		1	
C4039	PHYSCL/ELECTRNC SECRTY TECH 3		1	1	Prior Salary History and Difficulty Filling Position
C4101	CUSTODIAN	2	3	5	Prior Salary History
C4110	GROUNDS MAINTENANCE WORKER 2	2		2	
C5519	FORCE PROTECTION OFFICER	0		0	
C5555	FIREFIGHTER	0		0	
C6750	GROUP LIFE COORDINATOR 1	0		0	
C6751	GROUP LIFE COORDINATOR 2	0		0	
C8254	WILDLAND FIRE SUPP SPEC ENTRY	0		0	
C8255	WILDLAND FIRE SUPPRESSION SPEC	3	2	5	Prior Salary History and Superior Qualification

OREGON MILITARY DEPARTMENT
2013-15 BIENNIUM: PHASE 1 WAYS & MEANS PRESENTATION
LIST OF NEW HIRES IN 2011-13 BY CLASSIFICATION

CLASS	CLASS DESCRIPTION	# hired at step 2 or below	# hired above step 2	Total per Classif.	JUSTIFICATION FOR SALARY OVER STEP 2
C8501	NATURAL RESOURCE SPECIALIST 1	1		1	
C8502	NATURAL RESOURCE SPECIALIST 2		1	1	Difficulty Filling the Position
C8504	NATURAL RESOURCE SPECIALIST 4	1		1	
C9116	COOK 1	0		0	
X0863	PROGRAM ANALYST 4	1		1	
X0866	PUBLIC AFFAIRS SPECIALIST 3	1		1	
X0871	OPERATIONS & POLICY ANALYST 2	1		1	
X4046	MAINTENANCE & OPERATIONS SUPV	1	1	2	Prior Salary History
X5554	DEPUTY FIRE CHIEF		1	1	Prior Salary History and Difficulty Filling Position
X7004	PRINCIPAL EXECUTIVE/MANAGER C		1	1	Prior Salary History and Difficulty Filling Position
X7008	PRINCIPAL EXECUTIVE/MANAGER E		1	1	Prior Salary History and Difficulty Filling Position
Z7012	PRINCIPAL EXECUTIVE/MANAGER G		1	1	Prior Salary History
	TOTALS	20	19	39	

State Legislation Impacting OMD

- HB 2037 – Requires certain professional regulatory boards to issue authorization to practice profession to the spouse or domestic partner of an active member of the Armed Forces – (Oregon Military Department)
- HB 2038 – Repeals laws pertaining to payments made by Oregon Military Department – (Oregon Military Department)
- HB 2083 – Permits service members called into active service to suspend and reinstate provisions of telecommunications, Internet, health spa and health club services – (Oregon Military Department)
- HB 2159 – Directs Oregon Military Department to establish therapy and service dog pilot program – (House Interim Committee on Veterans Affairs)

State Legislation Impacting OMD

- HB 2161 – Requires certain entities which issue licenses, registrations, or certifications to expedite the process for spouses or domestic partners of an active member of the Armed Forces – (House Interim Committee on Veterans Affairs)

- HB 2162 – Removes the 12 month residency requirement for admission as residents to community colleges and public universities for persons who are members of specified uniformed services and their spouses and dependents

- HB 2176 – Authorizes State Treasurer to issue Article XI-N bonds to finance seismic rehabilitation of emergency service buildings – (Rep. Boone)

- HB 2208 – Specifies circumstances under which the DAS Director may grant exception to the 11-1 ratio requirement – (Department of Administrative Services)

State Legislation Impacting OMD

- HB 2674 – Requires pubic body to reserve one percent of construction appropriations for purposes of renovating or improving existing facilities
- HB 2786 – Requires state agencies to report on federal funds received and any required state match – (Rep. Whisnant)
- HB 2941 – Raises solar energy capacity, requires a portion to be generated on OMD property
- HB 5052 – 2011-13 budget reconciliation bill – (Department of Administrative Services)
- HCR 11 – Commends Brigadier General Julie A Bentz – (Rep. Bentz)

State Legislation Impacting OMD

- SB 32 – Establishes Oregon Code of Military Justice as law governing state militia – (Oregon Military Department)
- SB 131 – Creates Task Force on Mobile Command Centers – (Senate Interim Committee on Veterans and Military Affairs)
- SB 452 – Directs the PERS Board to establish a separate account in the PERS fund consisting of funds transferred from portions of ending balances of other funds accounts – (Sen. George)
- SB 551 – Establishes a task force on the Capital Construction Budget process – (Sen. Devlin and Rep. Buckley)
- SB 552 – Establishes a task for on the State Budget process – (Sen. Devlin and Rep. Buckley)

State Legislation Impacting OMD

- SB 5506 – Debt Authority Bill – (Department of Administrative Services)
- SB 5507 – Capital Construction Bill – (Department of Administrative Services)
- SB 5534 – OMD's Main Budget Bill – (Department of Administrative Services)
- SCR 4 – Directs state agencies to participate as project of program team members as part of the Oregon Solutions Network – (Sen. Johnson)

State Legislation Impacting OEM

- HB 2034 – Authorizes OEM to cooperate with tribal governments for purpose of acquiring federal funds for emergencies – (Oregon Military Department)
- HB 2035 – Extension of the Emergency Communication Tax to 2026 – (Oregon Military Department)
- HB 2036 – Collection of Emergency Communication Tax on Pre-Paid Devices – (Oregon Military Department)
- HB 2179 – Prevents Sweeps of the Emergency Communication Tax – (Rep. Boone)
- HB 2183 – Eliminates requirement that annual earthquake drills be conducted in the month of April – (Rep. Boone)

State Legislation Impacting OEM

- HB 2337 – Authorizes State Treasure to issue Article XI-P bonds – (Rep. Greenlick)
- HB 2340 – Modifies provisions requiring public body to provide workers compensation coverage for qualified emergency service volunteers – (Oregon Military Department)
- HB 2415 – Collection of Emergency Communication Tax on Pre-Paid Devices – (Rep. Mathews, Rep. Clem, Rep. Hoyle, Sen. Roblan)
- HB 2454 – Collection of Emergency Communication Tax on Pre-Paid Devices – (House Interim Committee on Revenue)
- HB 2496 – Extension of the Emergency Communication Tax to 2020 – (House Revenue Committee)

State Legislation Impacting OEM

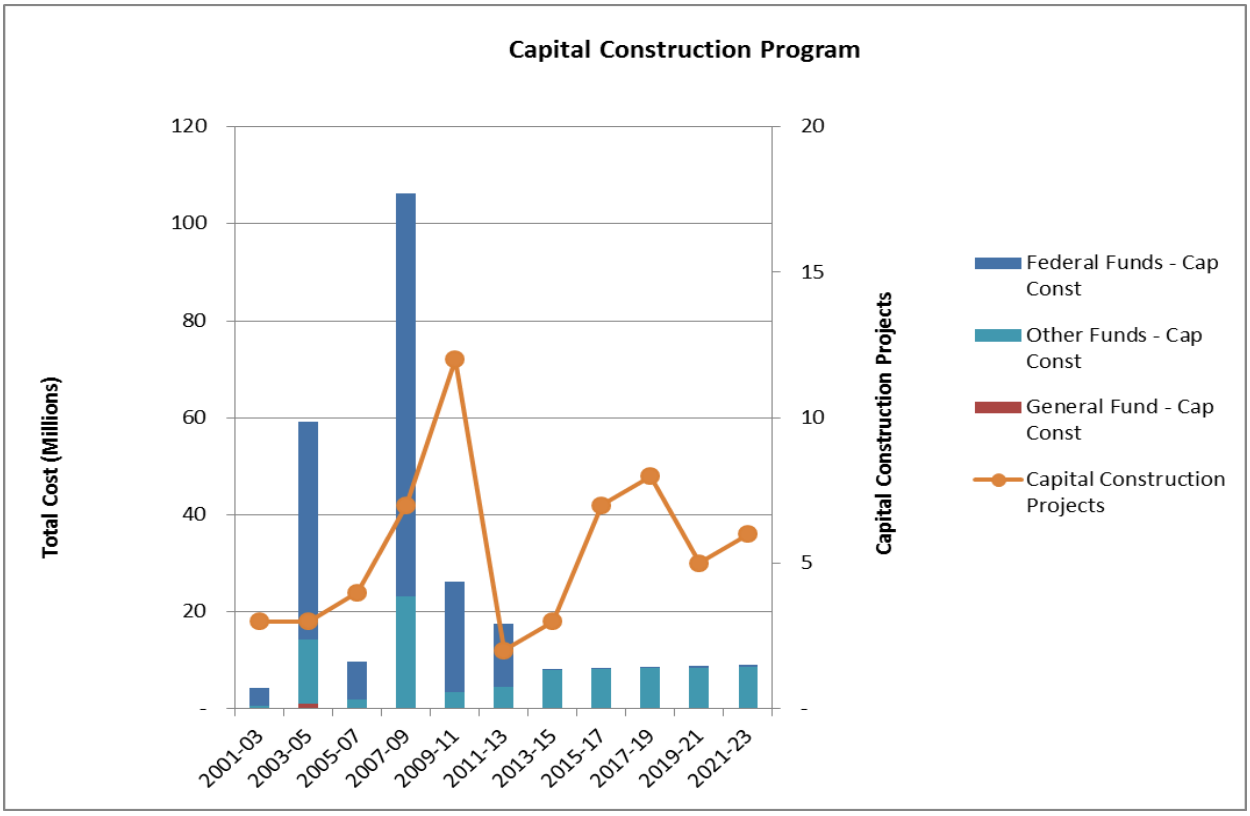
- HB 3317 – Extension of the Emergency Communication Tax to 2022 – (Multiple Sponsors)
- SB 33 – Modifies list of state agencies required to designate a liaison for emergency preparedness and response – (Oregon Military Department)
- SB 97 – Changes the name of the Pre-Disaster Mitigation Fund and the Oregon Disaster Response Fund – (Oregon Military Department)
- SB 130 – Requires criminal records check for volunteers and employees who staff State Emergency Operations Centers or emergency operating facilities of a city or county – (Senate Interim Committee on Veterans and Military Affairs)

State Legislation Impacting OEM

- SB 134 – Establishes nine Regional 9-1-1 Centers – (Senate Interim Committee on Veterans and Military Affairs)
- SB 597 – Requires moneys in the Emergency Communication Account to be used for 9-1-1 purposes except in the case of a Fiscal Emergency – (Sen. Olsen)
- SB 598 – Establishes Requirements for 9-1-1 calls from MLTS – (Sen. Olsen)
- SB 772 - Collection of Emergency Communication Tax on Pre-Paid Devices – (Committee on Rural Communities and Economic Development)
- SB 813 – Transfers the Seismic Rehabilitation Grant Program to the Department of Administrative Services – (Committee on Veterans and Emergency Preparedness)

Oregon Military Department – Capital Construction Program

Primary Outcome Area: Safety
Secondary Outcome Area: Economy and Jobs
Program Contact: Brigadier General J Michael Caldwell, (503) 584-3884



Executive Summary

The Capital Construction program is responsible for the planning, design, and construction of all capital construction projects for the Oregon Army National Guard. Due to the nature of Capital Construction funds the above chart only indicates approval of Capital Construction expenditure limitation. Actual expenditures may take place for up to six years.

Program Funding Request

N/A

Program Description

The Capital Construction program (CCP) addresses the agency's most critical facility shortfalls either through replacing facilities that are no longer capable of serving the needs of the assigned units, or extending the lifespan of facilities through alterations and additions.

Similar to the Operations Program the CCP heavily utilizes the Installation Status Report as a guide to identifying which facilities across the state will need to be replaced or modified. Once a project has been identified the CCP will begin the development of the Design/Build contracting vehicle. The transition to the use of a Design/Build vehicle has led to more efficient use of project resources, increased the certainty of project budgets and dramatically reduced the risk of conflict and potential litigation.

When planning capital construction projects the Capital Construction Program utilizes a three pronged strategy. First, they look at the possibility of constructing an Armed Forces Reserve Center (AFRC). The value in this type of project is the agency can access federal funds for up to 90% of total design and construction costs. Second, the CCP will seek out partnerships with federal, state and local agencies to share in the functionality of our facilities. The primary building areas shared include the entrance areas, assembly halls, parking lots, restrooms, classrooms, break rooms and kitchens. The value this strategy provides is access to external funding from the partners for the construction and ongoing operating costs of the facility. This external funding is used as a portion of the matching requirements placed on the federal funds. Third, the CCP will attempt to identify excess real property and facilities which can be disposed of by the construction of a new facility. The proceeds from the disposal of these excess items go into our Capital Construction Other Funds Account and are used to help offset construction costs.

Since 1986 the Capital Construction program has executed 42 construction projects throughout the state bringing in combined federal support in excess of $216 million. The ratio of federal support to state support for capital construction projects currently sits at 8:1. The Capital Construction Program has 20 projects identified on the National Guard Bureau Long-Range Construction Plan. Estimates indicate these projects will extend through 2032, bringing millions in additional federal support to Oregon.

Material and labor costs have been identified as the primary cost drivers for the program. After several years of declining costs for both these areas the industry has begun to experience mild increases in labor costs, and moderate increases in material costs. These trends are expected to continue, with most industry analysts predicting a 2-3% annual increase in labor costs, and a 4-5% annual increase in material costs for the next 3-5 years.

A fundamental component of the program strategy is the pursuit and utilization of partnerships in the communities affected. These partnerships with local entities ensure the agency is relevant to the local community, improves the ability of the unit assigned to the community to conduct their missions, and leverages our facilities into community assets, providing maximum value for the invested funds.

Program Justification and Link to 10-Year Outcome

The Capital Construction Program has a direct nexus to the Governor's Safety Strategy 3.3. This strategy asks that "communities are prepared for and resilient to disasters and that Oregon maintains and preserves infrastructure to prevent the loss of life and property". The facilities constructed by the Capital Construction program are utilized throughout the state during times of crisis. During the December 2007 Winter Storm and the January 2012 Floods the Anderson

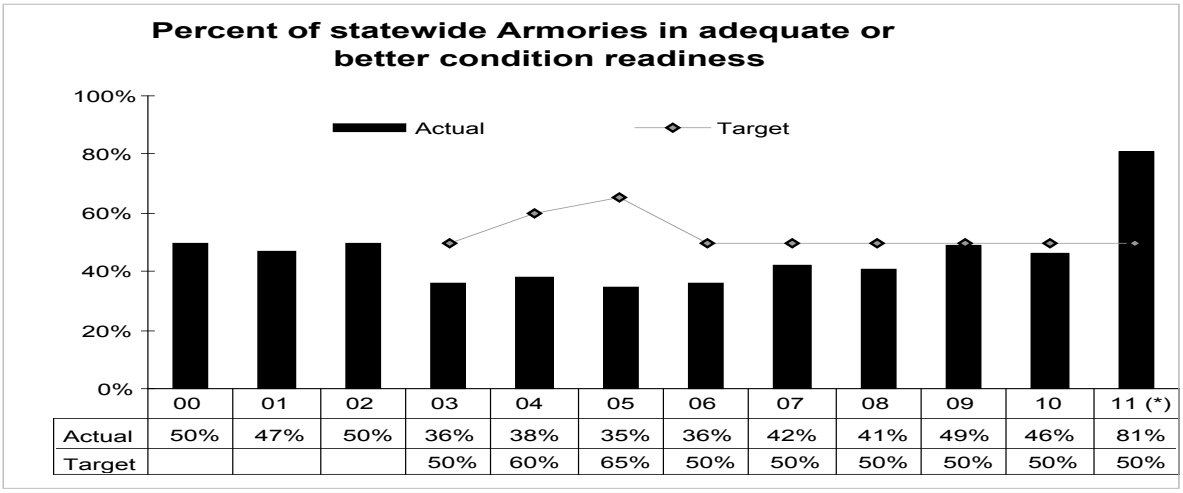
Readiness Center was fully operational and providing 24 hour support through the Emergency Coordination Center. This facility is also designed above and beyond current seismic safety standards to ensure it is operational in the aftermath of a major earthquake.

In addition the CCP enables the State of Oregon to address its responsibility to provide facilities that support the assigned citizen soldiers in the performance of their duties. Providing suitable facilities for the assigned units is imperative, as it enables them to train, store their equipment, and conduct their missions. Furthermore, if sufficient facilities are not available to meet the needs of the National Guard Units, the National Guard Bureau has the authority to remove those units from the state. It is essential to the citizens of the State of Oregon that this never happens, as the National Guard is the primary resource for the states response to both human made and natural disasters, and brings millions of federal dollars into the communities.

As stated above the Capital Construction Program has been responsible for bringing hundreds of millions of dollars of federal revenue into the Oregon economy in the last 25 years. In the last ten years alone this program has spent over $205 million on construction projects throughout the state. This investment cannot help but have the effect of enhancing local and domestic markets, which is a clear expectation within the Economy and Jobs Policy Document. The investment made by this program also leads to the retention and development of high paid construction and consulting jobs throughout the state. There is a clear expectation within the Economy and Jobs Policy Document that the retention and development of these types of skilled positions needs to be a top priority for building a strong, diverse and globally engaged economy.

Program Performance

A primary tool utilized by the Capital Construction Program to gauge program performance is the Installation Status Report (ISR). The ISR categorizes the readiness of our facilities as being unsatisfactory, adequate or better. Based on the Fiscal Year 2011 ISR 81% of our major facilities are in adequate or better condition. Another metric utilized by the Capital Construction Program is the Percent of Available Armory Time Rented. While the Capital Construction Program is required to construct facilities to meet certain National Guard Bureau requirements, they do so while trying to enhance the marketability of the structure. This makes them more valuable to community due to the traffic associated with major events which can be held inside our installations.



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Actual	50%	47%	50%	36%	38%	35%	36%	42%	41%	49%	46%	81%
Target				50%	60%	65%	50%	50%	50%	50%	50%	50%

Enabling Legislation/Program Authorization

The National Guard is authorized by the US Constitution Article I, Section 8 Clauses 15 and 16. The Capital Construction Program is a division within the Oregon Military Department authorized under Article X of the Oregon State Constitution. The program is further authorized under ORS Chapters 396 and 399. Federal Program Authority is authorized by National Guard Bureau (NGB) Military Construction Cooperative Agreements (for each federally funded project), based on the 415 series of regulations.

Funding Streams

The program has historically been funded with Other Funds (19%) and Federal Funds (81%). Over the last ten years, Federal funds were provided through the Military Construction (MILCON) program. Other Funds have been sourced from the agency's Capital Construction Account or through the use of Certificates of Participation (now Article XI-Q bonds) sold by the state. The Capital Construction Account is prescribed by ORS 396-525, which requires the agency to deposit revenue generated from the sale of its real property into the account, and restricts the use of the account to the departments' capitol construction expenses. Both the Other Funds and Federal Funds sources of revenue are dedicated.

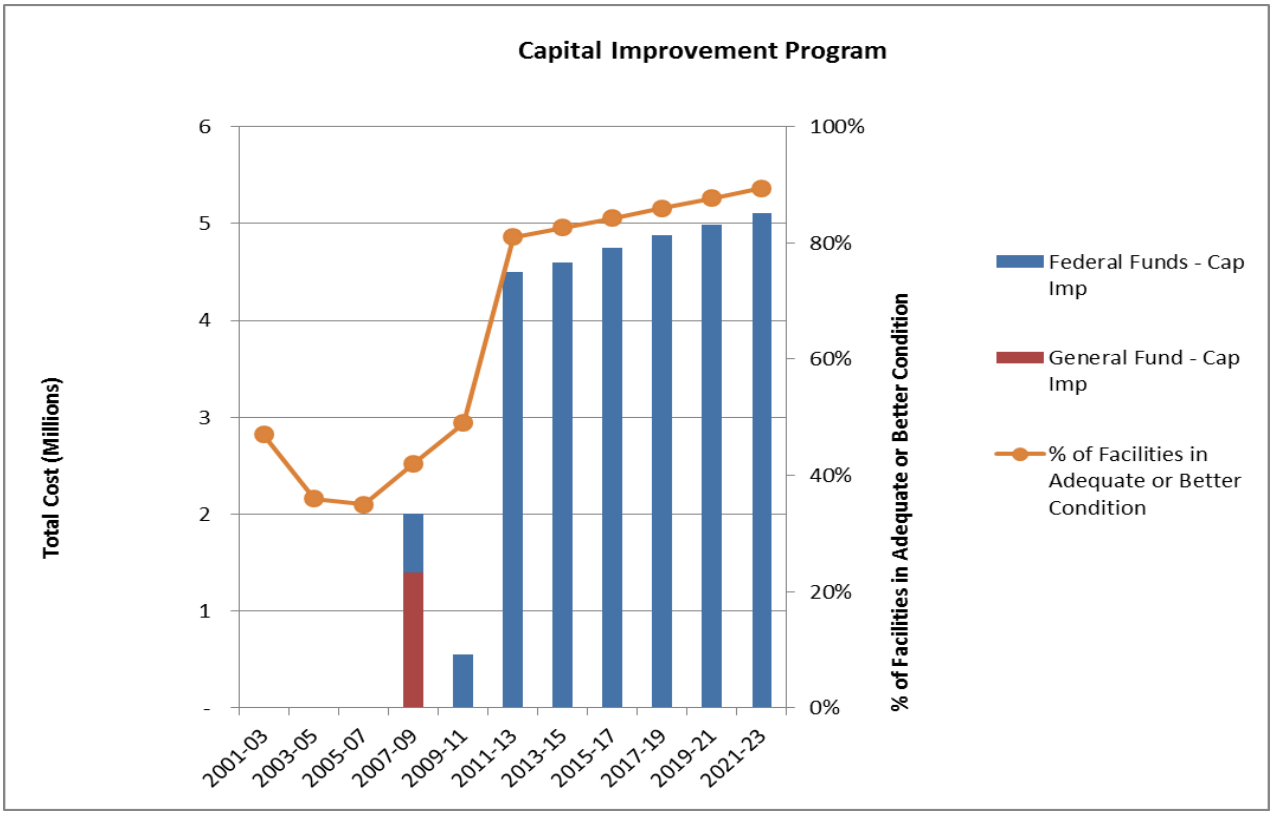
Significant Proposed Program Changes from 2011-13

The proposed budget for the Capital Construction Program is an enhancement over the program's Current Service Level budget. Capital Construction Limitation is deemed to be fully expended within the biennium in which it is awarded and is removed from the base budget in the subsequent biennium. Due to this nuance there is no 2013-15 Current Service Level budget within the Capital Construction Program.

The program is not shifting resources to new activities, but it is working to improve how it does business. This includes identifying the most critical facilities in need of refurbishment or replacement, as well continually try to maximize federal investment while minimizing state costs. To this end several new capital construction projects being considered for the 2013-15 biennium. More details surrounding the projects can be found in the Capital Construction New Projects Round 2 document.

Oregon Military Department – Capital Improvement Program

Primary Outcome Area: Safety
Secondary Outcome Area: Economy and Jobs
Program Contact: Brigadier General J Michael Caldwell, (503) 584-3884



Executive Summary

The Capital Improvement Program works to meet the critical requirements for housing units of the Oregon Army National Guard. The primary difference between the Capital Improvement Program (CIP) and the Capital Construction Program is the CIP performs projects with a total cost of less than $1 million.

Program Funding Request

N/A

Program Description

The Capital Improvement Programs primary responsibility is to perform critical deferred maintenance projects across 3 million square feet of facility space. Typical capital improvement projects are key facility roof, structural, HVAC system, and building envelope (i.e. window and door replacement) projects. These deferred maintenance projects directly affect the operational readiness of Oregon National Guard facilities used for soldier and airman training. Increasing

levels of deferred maintenance also impact our tenants. Our statewide facilities serve a total tenant population of 10,262 made up of employees, students, BLM, State Police, USDF, OR Department of Veterans Affairs, the Coast Guard and many others. The majority of these tenants utilize our facilities on a daily basis, thereby requiring our staff presence daily. National Guard facilities also function as rental facilities for the general public. In 2011 200,000 people attended events in these facilities. Due to this heavy use, providing regular maintenance as well as reducing deferred maintenance is a top priority for the Capital Improvement Programs.

To successfully mitigate issues associated with deferred maintenance, the Capital Improvement Program relies on partnerships. Many of these partnerships are the same as those the Operations Program relies on for success. We partner with Treasure Valley Community College, home to the Ontario Armory, and Western Oregon University, home to the Regional Training Institute. In 2013 The Dalles Armory will be constructed at the Columbia Gorge Community College providing a new partnership. We also partner with the Marine Corps Reserve, US Naval Reserve, US Bureau of Land Management and the US Forest Service in the operation of our Springfield Armed Forces Reserve Center. The Anderson Readiness Center located in Salem houses OEM, ODOT, LEDS and the State Police. OMD, ODOT and State Police have 24 hour operations in this facility. These are but a few of the many partners who provide critical funding to help finance regular maintenance at some of our facilities.

For facilities which do not benefit from partnerships the levels of deferred maintenance continue to increase due to the rising cost of regular maintenance. During the 2009-11 biennium the average cost per square foot for Army National Guard facilities was $4.89. For the same time period available General Fund per square foot amounted to $1.20. Due to the split funding structure for the majority of our facilities the limited amount of available General Fund affected the ability of the agency to perform routine maintenance, leading to the increase in deferred maintenance. Current reports show the statewide deferred maintenance backlog at $79.6 million. The issue of split funding and limited General Fund resources will impact the effectiveness of the Capital Improvement Program to reduce this figure.

The Capital Improvement Program has evaluated contracting out a variety of services including maintenance. The results of this inquiry have found contracting out to be more expensive and less responsive.

Program Justification and Link to 10-Year Outcome

The mission of the Oregon National Guard is to provide the citizens of the State of Oregon and the United States with a ready force of citizen soldiers and airmen, equipped and trained to respond to any contingency. "*When we are needed, we are there"* is our creed, and this creed supports the Governor's safety vision of "Oregonians will be safe where they live, work and play". The Capital Improvement Program is a support program which allows the Oregon National Guard to be ready to support local and national missions.

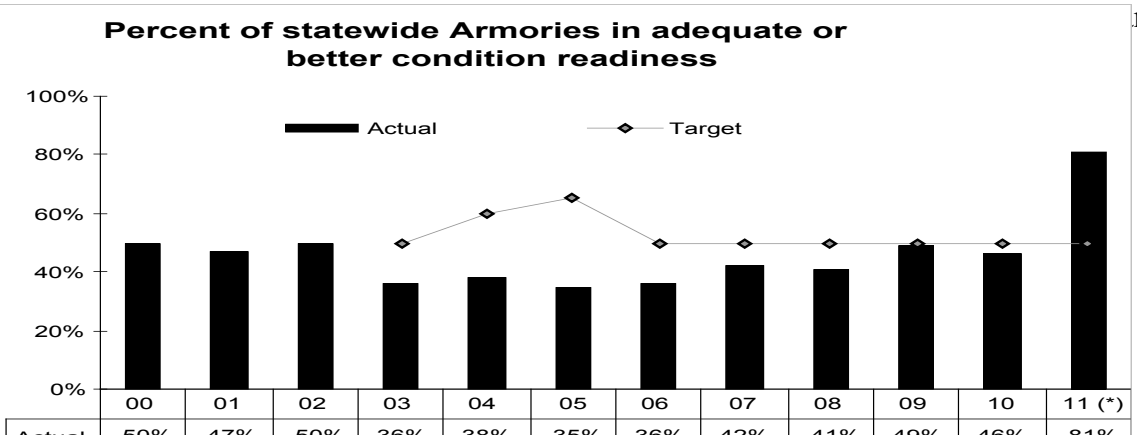
Deferred maintenance of critical facilities is the driving force behind the Capital Improvement Program. There is a direct nexus between resolving deferred maintenance issues and the Governor's Safety Strategy 3.3, primarily the requirement for maintained and enhanced facilities to provide for adequate response to natural or human made disasters. Oregon National Guard

facilities act as centralized points for the support of communities during a disaster. Our facilities can be utilized to act as Emergency Coordination Centers, food and supply distribution centers, a gathering place for displaced citizens, as well as the launch sites for National Guard support. The majority of our facilities are funded with a matching requirement, so the burden for maintaining these facilities is shared by both the state and federal government. This is an important point to realize as it directly affects our ability to successfully leverage critical federal resources.

In addition to the role as a Safety organization, the Oregon Military Department acts as an economic stimulator due to federal funding. The almost 9,000 Citizen Soldiers bring valuable Personal Income Tax revenue into the state. By successfully dealing with critical deferred maintenance issues the Capital Improvement Program is mitigating the risk of losing National Guard Units. The risk of the National Guard Bureau removing National Guard units from Oregon is very real if sufficient facilities are not available. It is essential to the citizens of the State of Oregon that this never happens, as the National Guard is the primary resource for the states response to both human made and natural disasters, and brings millions of federal dollars into Oregon communities.

Program Performance

The primary performance tool of the Capital Improvement Program is the Installation Status Report (ISR). The ISR categorizes the readiness of our facilities as being unsatisfactory, adequate or better. Based on the Fiscal Year 2011 ISR 81% of our major facilities are in adequate or better condition. This is due to our state funded Armory Service Life Extension Program, use of the 2009 ARRA funds, as well as the construction of new facilities replacing outdated ones. A historical look at this metric is provided below. Another metric utilized by the Capital Improvement Program is the Percent of Available Armory Time Rented. During Fiscal Year 2011 approximately 40% of available armory time was rented. These metrics are utilized



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Actual	50%	47%	50%	36%	38%	35%	36%	42%	41%	49%	46%	81%
Target				50%	60%	65%	50%	50%	50%	50%	50%	50%

Enabling Legislation/Program Authorization

The National Guard is authorized by the US Constitution Article I, Section 8 Clauses 15 and 16. The Oregon National Guard is authorized by Article X of the Oregon Constitution. The Operations Program is authorized by ORS Chapters 396, 398 and 399. Further Federal Authorization is provided by National Guard Regulation 5-1.

Funding Streams

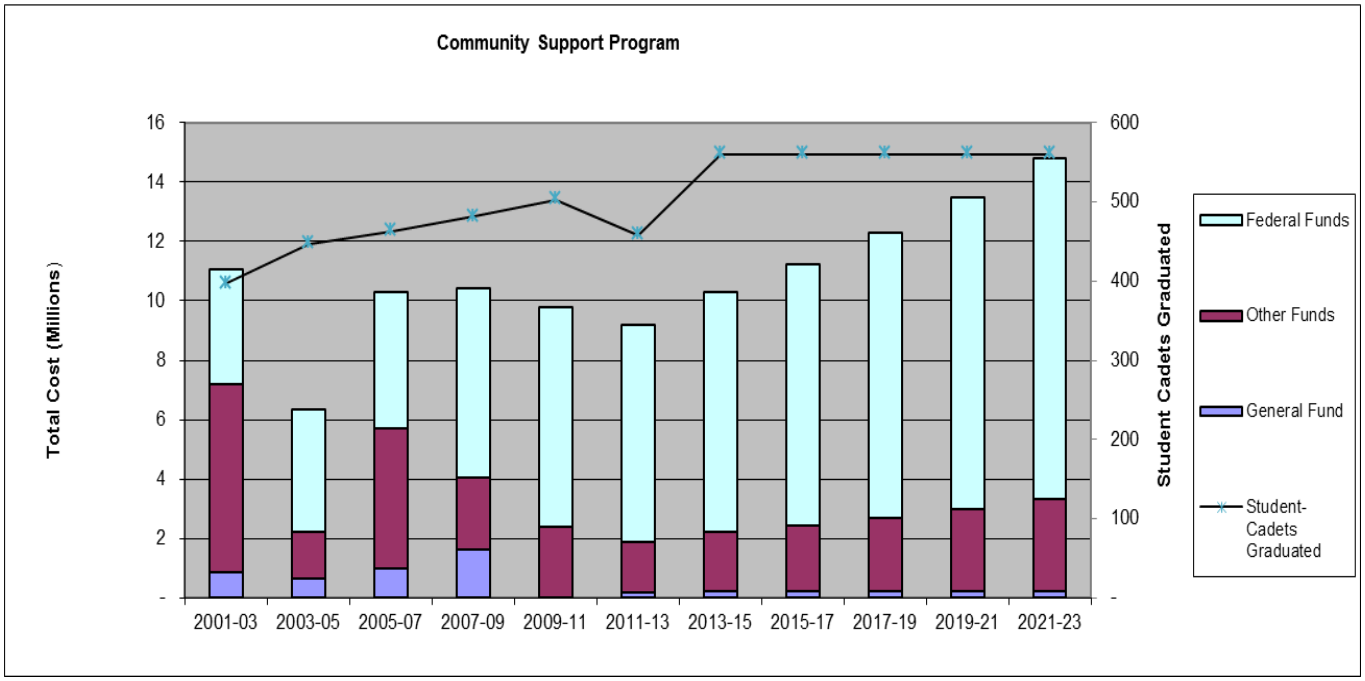
The program is currently funded with Federal Funds (100%). In past biennia, the most recent being 2007-09, General Fund has been approved through the Legislature. The Federal Funds carry a match requirement of zero to 50 percent and come primarily from the National Guard Bureau. All Federal Funds are dedicated and subject to sequestration

Significant Proposed Program Changes from 2011-13

The proposed budget for the Capital Improvement Program maintains the Current Service Level budget. The program is working to improve how it does business. This includes identifying the most critical facilities in need of refurbishment or replacement, as well continually try to maximize federal investment while minimizing state costs.

Oregon Military Department – Community Support Program

Primary Outcome Area: Education
Secondary Outcome Area: Safety
Program Contact: Brigadier General J Michael Caldwell, (503) 584-3884



Executive Summary

The Military Department's Community Support Program offers a full spectrum of educational opportunities for the at-risk youth of Oregon. These opportunities are provided by the Oregon Youth Challenge Program in Bend and the STARBASE programs in Portland and Klamath Falls. Their goal is to provide the at-risk youth of Oregon an opportunity to build a future through education, structure and support.

Program Funding Request

N/A

Program Description

The Community Support program is comprised of two main program areas, the Oregon Youth Challenge Program (OYCP) and the Science and Technology Academies Reinforcing Basic Aviation and Space Exploration program (STARBASE). Both of these programs are committed to preparing the youth of Oregon "for lifelong learning, rewarding work and engaged citizenship".

Located in Bend, the Oregon National Guard Youth Challenge Program (OYCP) serves 16 to 18 year old male and female dropouts who have struggled to succeed in a traditional high school

environment. The OYCP is Oregon's only public ***statewide*** quasi-military based high school, which includes supervised work experience in community service and conservation projects. The program is fully accredited by the Northwest Accreditation Commission through the year 2014 and is a statewide public alternative high school. The OYCP is a residential 22 week program where student-cadets are provided all services 24 hours a day 7 days a week. The residential phase is followed by a 12 month post-residential phase which includes providing each graduate with a mentor. Two classes per year are conducted, serving 312 youth and graduating a minimum of 240 students each year. The OYCP within the Community Support Program has been recognized by the National Guard Bureau as the one of the "Best Overall Challenge Programs" every year since 2001.

The educational services of the OYCP are implemented through the use of an accredited high school curriculum taught by certified teachers approved by the Oregon Department of Education. The OYCP provides outreach to school districts in all 36 counties about alternative education opportunities. OYCP provides on-site orientations to interested applicants and their families, as well as training for mentors and mentees for the post residential phase of the program. The program also maintains ongoing service to community partnerships through student-cadet volunteer services, as well as scholarship opportunities for graduating student-cadets. 100% of graduating student-cadets earn either a high school diploma, a GED certificate, or 8 certified high school credits to take back to their communities to re-enroll.

The success of the Community Support program depends heavily on the utilization of partnerships. At the local level the OYCP partners closely with the Deschutes County Health Department for nursing services, Bend LaPine School District for teaching services, Central Oregon Community College for GED testing and High Desert ESD for auditing services. OYCP partners with non-profit organizations and local industries to take part in the programs semi-annual career fair. The OYCP partners primarily with the Department of Education at the state level. The OYCP partners with the National Guard Bureau, the USFS and BLM. The National Guard Bureau provides 75% of operational funding for the OYCP. The STARBASE Program partners with local school districts for contracting teaching services at both airbases.

The major cost drivers of the Community Support Program have been identified as Personal Service Costs, Contracting Service Costs, Direct Food Costs and Utilities. For the OYCP Personal Services account for 71% of annual operating costs, Contracting Services for student-cadet health care and certified teacher services account for 10% of annual operating costs, Direct Food Costs account for 5.5% of annual operating costs, and Utility Costs account for 3% of annual operating costs.

The Oregon Youth Challenge Program within the Community Support Program was developed to be ***the*** alternative solution for at-risk youth who are failing in the traditional high school setting. Therefore it is difficult to identify an alternative means of service delivery.

The STARBASE Program exposes third to eighth graders to the fields of Science, Technology, Engineering and Mathematics (STEM) with the hopes of inspiring them to pursue a career in these fields. This is done through the use of a highly acclaimed 25 hour curriculum taught by certified teachers from the local school districts. The program is focused on capturing student interest in STEM at the elementary and middle school levels and showing them why studying these courses is important to their future goals. The program is 100% federally funded and hosts

approximately 2,100 students each year at the Portland Airbase and the Kingsley Field Airbase in Klamath Falls.

Program Justification and Link to 10-Year Outcome

The vision of the Community Support Program through the Oregon Youth Challenge Program (OYCP) and the STARBASE Programs is to be the premier program serving at-risk youth and those who are not likely to succeed in the traditional school setting, while creating economic value, long term cost avoidance, civic contribution and future responsible tax paying citizens of Oregon. The Community Support vision goes hand in hand with the goal of preparing Oregon's youth "for lifelong learning, rewarding work and engaged citizenship".

The mission of the Community Support Program is to provide opportunities for personal growth, self-improvement and academic achievement among at-risk third through eighth graders (STARBASE), and teens no longer attending or failing in high school (OYCP), through a highly structured non-traditional environment; integrating training, mentoring and diverse educational activities. This mission ties directly to Strategy 2.3 which calls for the investment in evidence-based programs and practices that improve outcomes. This strategy specifically calls for investment in programs which:

1. Are effective at accelerating learning for those furthest behind.
2. Support Science, Technology, Engineering and Math.
3. Develop career pathways for youth.

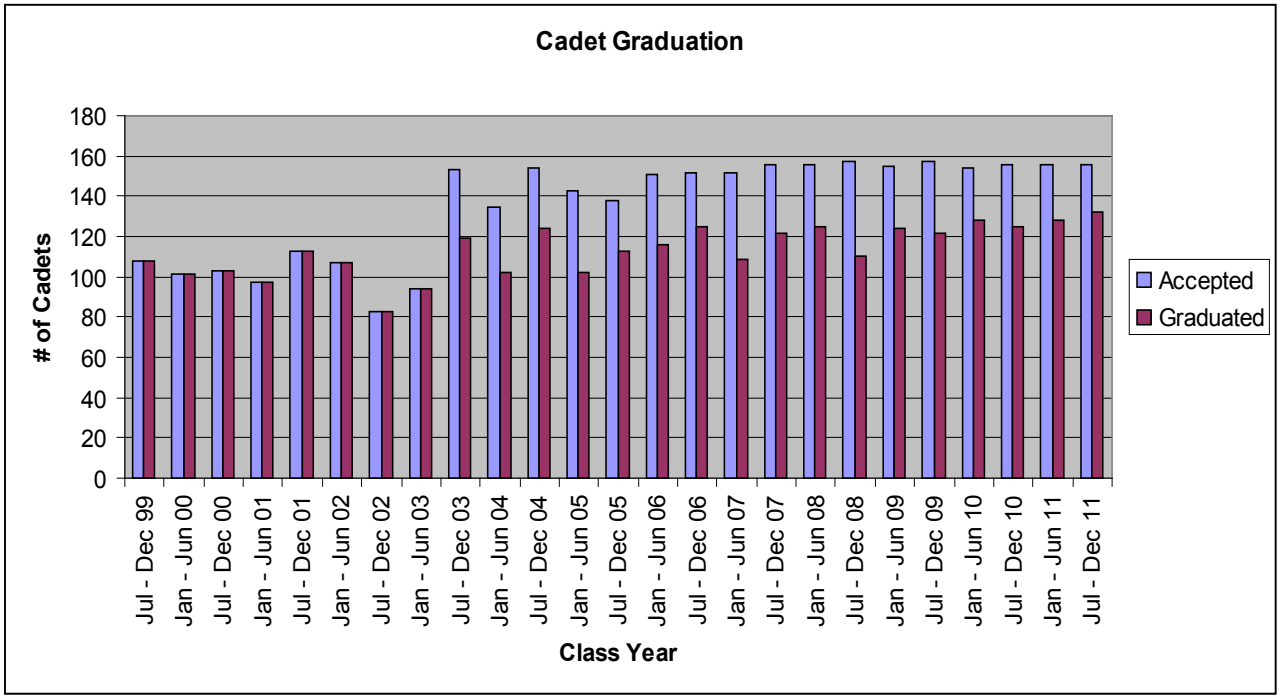
The Community Support Program was built specifically to help the youth of Oregon who are most at-risk of being left behind by the traditional educational system. The curriculum of both the Oregon Youth Challenge Program (OYCP) and the STARBASE programs emphasize the importance of math and science. The Community Support Program through the OYCP utilizes a work skills program which provides training in conjunction with public works and community service projects. Student-cadets at OYCP have worked with the U.S Forest Service, the Department of Fish and Wildlife, Oregon State Parks and the Department of Transportation on community service projects which provide exposure to a vast array of career fields. This community service provides over $200,000 a year in benefits to the participating agencies.

OYCP averages a 90% graduation rate. Approximately 24% of the students that graduated earned their High School Diploma while 10% participated in the GED program, of which 63% passed all portions of the examinations. The remaining 66% of the graduating students participated in the high school credit curriculum, of which 100% earned 8 credits allowing them to fully integrate back into their local high school. This is accomplished with a cost per student of $18,166, of which the state pays $4,542; the remainder is financed through federal funds. Please note these are the 2011-13 costs.

The Community Support Program also links to the Governor's safety strategy 1.2, preventing vulnerable youth from entering the public safety system. The strategy document calls for the development and utilization "of programs and policies that provide alternative means of education for vulnerable youth in Oregon who are struggling within the traditional education setting". Both the OYCP and the STARBASE program were developed to provide this service to the youth of Oregon, and both provide this critical service for little to no cost to the state.

Program Performance

This chart shows OYCP student-cadets accepted and graduated between 1999 and 2011.



July 1999 was the first year the Oregon Youth Challenge Program (OYCP) was classified as a "Full Challenge Program". Since that date the OYCP has accepted 3,741 student-cadets and has graduated 2,832 for a graduation rate of 80%. The 2011-13 average cost per student-cadet is $18,166 per year. 75% of this cost is financed through federal funds from the National Guard Bureau. The cost per student-cadet to the state of Oregon is $4,542 per year. This is 26% less than the average cost per student in Oregon public schools, which as of 2012 is $6,117.

The retention and graduation rates at OYCP of 240 per year exceed national standards. This in turn generates Other Funds revenue from the State Basic School Support fund which is needed to leverage the Federal Funds match of 75%. The Test of Adult Basic Education (TABE) score for graduating student-cadets have improved on average by 2.3 grade levels over the last 9 years.

The STARBASE Program acquisitions of a new facility, using federal funds, on the Portland Air Base will significantly expand student capacity over time. The average cost per student in Oregon to take part in the STARBASE program is $326.

Enabling Legislation/Program Authorization

The Community Support Program is a division of the Oregon Military Department which is mandated by Article X of the Oregon Constitution. The National Guard Youth Challenge Program was created to provide opportunities for civilian youth and is authorized by Section 509, Chapter 5 of Title 32, United States Code. The authority for all National Guard Youth Challenge Programs in the nation falls under the Secretary of Defense, acting through the Chief of the National Guard Bureau (NGB), who has entered into an agreement (as described in 31 USC Sect. 6305) with the Governor of the State of Oregon. The OYCP agreement was established in 1994 and is currently funded through the 2011-13 biennium.

The OYCP utilizes a citizen member Advisory Board. The board's primary role is to meet a minimum of twice per class as an oversight group to ensure the program meets the state plan and

Federal Master Cooperative Agreement. It too serves as a conduit to the local community to ensure local citizens are aware of the program and preserve quality community relations. The board advises the Adjutant General of Oregon through the Deputy Director for State Affairs.

The STARBASE program is authorized and approved through a Congressional Appropriation.

Funding Streams

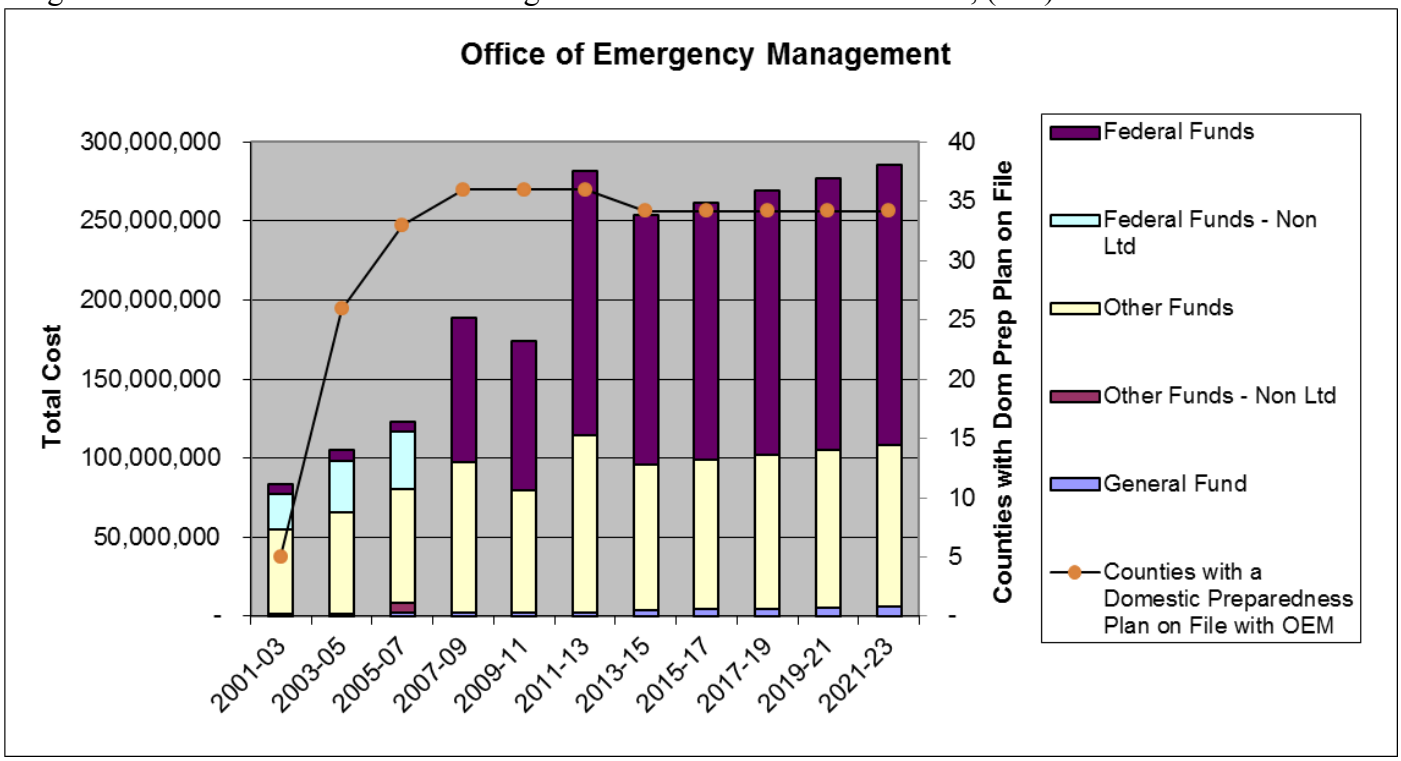
The OYCP is funded by General Fund (2.5%), Other Funds (22.5%) and Federal Funds (75%). The Other Funds include State Basic School Support (20.1%) and National School Lunch Meal Reimbursement (2.4%). The State Basic School Support funds are dedicated per ORS 336.615 – 336.675 and OAR 581-22-1350. The National School Lunch Meal Reimbursement funds are dedicated per PL 79-396 60 Stat.230 and PL 108-269, as well as ORS 326 & 327 and 7 CFR 210 and finally OAR 581-051. The Federal Funds carry a matching requirement of 25%, which is made up of General Fund and Other Funds. The Federal Funds are dedicated per Section 509 Chapter 5 of Title 32, United States Code. The STARBASE program is funded with Federal Funds (100%) which are fully dedicated.

Significant Proposed Program Changes from 2011-13

The proposed budget for the Community Support Program is a slight enhancement of the program's Current Service Level budget. This enhancement is due to the department being able to classify National School Lunch Program revenue as state match. This will allow the Community Support Program to attract increased federal revenue. At this time there is no plan to shift resources from current activities and direct them to new activities. The program is revisiting how it conducts its business, and trying to find more efficient and effective means of providing service to its customers. That being said the success the Community Support has had impacting the lives of thousands of Oregon children is evidence the program is working. Additionally the agency feels the services provided by the Community Support Program are in line with assisting the Governor reach his goal of 40-40-20, while continuing to prepare Oregonians for "lifelong learning, rewarding work and engaged citizenship".

Oregon Military Department – Office of Emergency Management

Primary Outcome Area: Safety
Secondary Outcome Area: Economy and Jobs
Program Contact: Brigadier General J Michael Caldwell, (503) 584-3884



Executive Summary

The Office of Emergency Management (OEM) coordinates statewide emergency services and maintains emergency communications systems used for public warnings, emergency notifications, and emergency support. OEM also provides cities, counties, and tribes throughout Oregon with planning, training, exercise and technical assistance as it relates to disaster preparedness, emergency response, hazard mitigation and seismic rehabilitation.

Program Funding Request

N/A

Program Description

The Office of Emergency Management encompasses five program areas: Administration, Plans and Training, Technology and Response, Mitigation and Recovery, and Seismic Rehabilitation.

1. The Administration Program oversees the strengthening of Oregon's overall emergency preparedness by coordinating and providing intra-governmental, non-governmental, and private sector partners with the opportunities to collaborate on specific patterns of preparatory actions. The result of these efforts lead to planned, coordinated, and

cooperative responses to natural and man-made disasters, which is the goal of the Executive and Legislative branches of government.

2. The Plans and Training Program (PTP) executes planning, training, and exercise programs with the goal of raising awareness. This increase in awareness leads to better statewide preparedness for all hazard incidents. The PTP also provides daily customer service to state and local agencies regarding Homeland Security Grant Programs, Emergency Operations Plans, Geological Hazard Programs, the National Incident Management System (NIMS), Training and Exercise Teams, Citizen Corp Program and the State Emergency Coordination Center.
3. The Technology and Response Program (TRP) is responsible for the seamless operation of the statewide Enhanced 9-1-1 system. This includes the responsibility for the continual coordination and management of the network necessary to deliver 9-1-1 calls to Public Safety Answering Points across the state. The TRP oversees the state Search and Rescue program which coordinates local search and rescue efforts with the National Guard, Coast Guard and the Civil Air Patrol. Finally the TRP coordinates with the Oregon State Police to manage the Oregon Emergency Response System (OERS).
4. The Mitigation and Recovery Program (MRP) leads the coordination among state, local, and federal agencies in the development, planning, and adoption of local community hazard mitigation plans. The MRP accomplishes this by administering multiple Department of Homeland Security programs including the Pre-Disaster Mitigation Program, the Flood Assistance Program, the Severe Repetitive Flood Program, the Hazard Mitigation Grant Program, and the Robert T. Stafford Disaster Relief Fund (which encompasses Public Assistance and Individual Assistance for disaster recovery). Additionally the MRP leads the coordination of post disaster activities.
5. The Seismic Rehabilitation Grant Program (SRGP) provides funding for construction projects to seismically rehabilitate schools and emergency services buildings. The purpose of the funding provided by this program is to reduce loss of life, as well as economic losses, in the event of an earthquake, particularly a Cascadia Subduction Zone earthquake. The SRGP serves over 200 school districts, community colleges, and universities as well as 300 fire departments, fire districts, police, and sheriff's offices and hospitals across the state. To date 35 schools and emergency service facilities have been awarded a total of $30 million in article XI-M and XI-N general obligation bond funds.

The major cost drivers associated with the OEM program include Personal Service costs. While increased costs are an issue, planned reductions in Homeland Security Grant Funds is the main issues affecting OEM. Oregon's share of Homeland Security Grant funds fell by 46% from $5,137,205 to $2,801,316 between 2011and 2012.

To accomplish its complex mission the Office of Emergency Management (OEM) heavily utilizes partnerships between federal, state, and local agencies as well as volunteer groups.

The Administration Program partners with state agencies, cities and counties to coordinate a holistic approach to emergency management. This approach includes helping create awareness, response, mitigation and recovery processes. The Plans and Training Program (PTP) partners with state agencies to administer the Oregon Emergency Response System Council. These partners also man the state Emergency Coordination Center during natural and human-made disasters. These partnerships help provide emergency support functions to determine the

resources or assets needed to meet the needs of impacted areas. OEM has partnerships with all state agencies when responding to emergency situations.

The Technology and Response Program (TRP) partners with the 48 Public Safety Answering Points (PSAPs) around the state to ensure seamless operation of the 9-1-1 system. The TRP meets quarterly with members of the PSAP community to discuss new technologies, operational improvements and program requirements. The TRP also partners with the Amateur Radio Unit (ARU) during times of emergency. The ARU is staffed by volunteers and acts as a backup/alternative system for statewide communication when traditional means of communication have broken down.

The Mitigation and Recovery Program (MRP) works with local jurisdictions and state agencies to plan strategies for the mitigation of hazards across the state. The MRP also partners with the Federal Emergency Management Agency (FEMA) in effectively leveraging federal resources. The Seismic Rehabilitation Grant Program (SRGP) partners with a diverse group of stakeholders in the awarding of critical funding to schools and emergency service facilities for the mitigation of damages from a major earthquake. These stakeholders include, but are not limited to, the Department of Administrative Services, Department of Education, Oregon Health Authority, Oregon Fire Chiefs Association, Oregon Police Chiefs Association, Association of Oregon Counties and the League of Oregon Cities. Each of these groups has a vested interest in the long term safety of Oregon schools and emergency service facilities, and the SRGP provides them a forum for acting on those interests.

Opportunities to improve performance through alternative delivery methods: The creation of regional Emergency Management Teams is a strategy which would lead to more effective and coordinated response and recovery efforts across the state. An additional strategy would be to begin incorporating mitigation practices during the development stages of construction and industrial expansion. It has been shown that mitigation is one the most effect mechanisms for building disaster resilient communities.

Program Justification and Link to 10-Year Outcome

The mission of the Office of Emergency Management (OEM) is to support the safety and security of the citizens of Oregon. This mission goes hand in hand with the Governor's goal of all "Oregonians will be safe where they live, work and play". OEM accomplishes this mission through effective partnership development, planning and training, mitigation actions, educational outreach, research and development and leveraging of resources. The partnerships between OEM and the vast array of federal, state, and local agencies as well as public organizations tie directly to Strategy 3.3 which calls for the "coordination among state, local and federal agency efforts for emergency preparedness, response, recovery and hazard mitigation".

The Safety Policy document says "Oregonians expect guidance, standards and information regarding prudent investments and mitigation strategies that reduce their vulnerability to natural and human-made disasters". OEM provides this guidance through effective statewide leadership on disaster awareness, preparedness, mitigation, and response and recovery. This leadership helps ensure communities have prepared and planned for disasters and the corresponding recovery efforts which follow (Strategy 3.3). These planning actions help improve the resiliency of Oregon to the long term impacts of natural and human-made disasters (Strategy 3.3).

OEM is continually working to improve the services and materials needed to help educate communities. OEM has distributed thousands of brochures on hazard preparedness, especially as it relates to earthquakes. OEM also utilizes social media (Twitter and Facebook) to share the message of preparedness, as well as for disseminating real time information during a disaster (Strategy 3.2). Effective statewide communication is an integral part of the operations within OEM.

A major communication project underway within OEM is the development of the Next Generation 9-1-1 system. The development of this system will help coordinate shared public safety data and real time communication systems with the goal of increasing the capability and responsiveness of all public services. This project has a direct nexus with Strategy 3.2 which calls for "an effective and efficient 9-1-1 emergency response system that seamlessly integrates the most current technology". In addition to Next Generation 9-1-1 OEM is working to improve the Oregon Emergency Response System (OERS). The improvements are focused on enhancing the communication and coordination between government agencies for responding to hazard incidents across the state (Strategy 3.2).

It is important to realize the work done by OEM impacts policy areas outside of safety. Having effective mitigation and disaster recovery plans in place along with proactive educational outreach helps improve the resiliency of Oregon's economy (Strategy 1B). The work performed by OEM and its partnership with the federal government helps bring millions of dollars to Oregon to help improve public infrastructure and facilities as well as removing homes from flood zones. The result is less damage and injuries during future events and a quicker economic recovery to impacted areas.

Program Performance

To date the Office of Emergency Management (OEM) has provided funding to 34 counties to help finance emergency management programs. Currently 89% of Oregon counties have a formal written Emergency Operations Plan on file with OEM. Our goal is for 100% of counties to have a plan on file within the near future. Through the Emergency Communications Account all 49 Public Safety Answering Points (PSAPs) are able to maintain/upgrade 9-1-1 call taking equipment. Currently 80% of Oregon's population is covered by a FEMA approved hazard mitigation plan. This has resulted in several mitigation projects being approved for funding through the Pre-Disaster Mitigation Program. OEM has awarded approximately $30 million of funding for Seismic Rehabilitation projects to schools and emergency service facilities across the state.

Enabling Legislation/Program Authorization

The Office of Emergency Management (OEM) is a division of the Oregon Military Department which is authorized under Article X of the Oregon State Constitution. OEM is further authorized by Oregon Revised Statutes 401.052, 403.120 and 404.100. Federal program authority is authorized by Department of Homeland Security 44 CFR.

Funding Streams

The program is funded with General Fund (2%), Other Funds (36%) and Federal Funds (62%). The Other Funds include dedicated Emergency Communication Tax Revenue which is collected from any device capable of reaching the 9-1-1 system, with the exception of pre-paid devices. Additionally OEM receives dedicated Other Funds proceeds from the sale of General Obligation

Bonds. The Federal Funds carry match requirements of zero to 50 percent, are dedicated, and come primarily from the Department of Homeland Security.

Significant Proposed Program Changes from 2011-13

The proposed budget for the Office of Emergency Management is an enhancement over the program's Current Service Level budget. The Current Service Level General Fund budget was materially impacted by the phase-out of a onetime expenditure of $4.0 million associated with the Vernonia School District. The Current Service Level Other Funds budget was materially impacted by the phase-out of the state 9-1-1 program required by the sunset of the Emergency Communications Tax. The Federal Funds Current Service Level budget was materially impacted due to the phase-out of the Chemical Stockpile Emergency Preparedness Program (CSEPP).

The enhancement over the Current Service Level budget is the result of OEM focusing efforts on developing a greater statewide presence, and improving the overall efficiency with which it delivers its services through the effective use of technology.

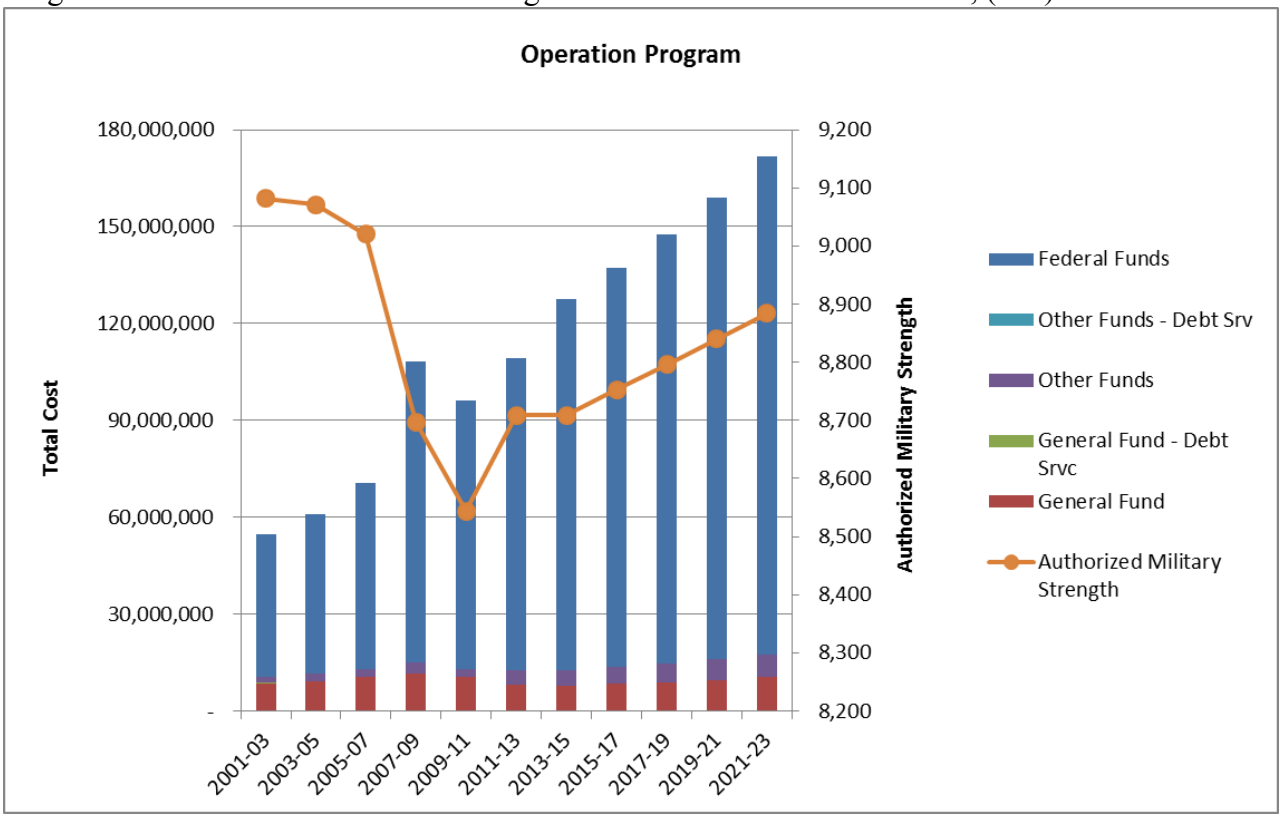
Having a greater statewide presence will allow OEM to be directly involved with local governments and communities. This direct interaction will provide more refined and immediate support and guidance as it relates to mitigation efforts, emergency preparedness planning, and emergency response needs. The agency believes this interaction will result in better prepared domestic preparedness plans, hazard mitigation plans, and community awareness.

OEM is committed to enhancing operational effectiveness by effectively utilizing technology. This budget will allow OEM to integrate the latest technologies related to GIS mapping, 9-1-1 call taking, and operating system upgrades. These advancements will allow not only OEM, but the state as a whole to be more efficient and effective responding to emergency situations and recovery efforts.

The program is also revisiting how it conducts its business to find more efficient and effective means of providing service to its customers. This includes reviewing employee roles and responsibilities, developing a centralized IT support structure, effectively managing current workloads, and trying to develop mechanisms for leveraging federal resources.

Oregon Military Department – Operations Program

Primary Outcome Area: Safety
Secondary Outcome Area: Economy and Jobs
Program Contact: Brigadier General J Michael Caldwell, (503) 584-3884



Executive Summary

The Operations Program supports the mission of the Oregon National Guard through the ongoing maintenance and support of National Guard Facilities. Without the Operations Program there would not be a National Guard within the State of Oregon. The success of the Operations Program also directly affects the Governor's Safety Strategy as it relates to the state's ability to provide adequate infrastructure in response to natural or human-made disasters.

Program Funding Request

N/A

Program Description

The Operations Programs primary responsibility is to maintain and enhance the operational readiness of Oregon National Guard facilities for soldier and airman training. Our statewide facilities serve a total tenant population of 10,262 made up of employees, students, BLM, State Police, USDF, OR Department of Veterans Affairs, the Coast Guard and many others. The majority of these tenants utilize our facilities on a daily basis, thereby requiring our staff

presence daily. The facilities maintained by the Operations Program also function as rental facilities for the general public. In 2011 200,000 people attended events in Oregon National Guard facilities. These events included business meetings, wedding receptions, trade shows, concerts, cultural events, Red Cross blood drives, and sporting events, all of which generate Other Funds Revenue.

The services provided by the Operations Program include facilities maintenance and support, environmental services, and 24-7 security and fire support services (airbases only). The Operations Program also conducts equipment refurbishment operations and counter-drug operations.

Facilities maintenance and support is primarily accomplished through the work of the Real Property Operations and Maintenance Program (RPOM) for Army Guard facilities, and the Civil Engineering Programs (CE) for Air Guard Facilities. RPOM is currently responsible for over 240 buildings totaling 3 million square feet. To effectively manage the facility maintenance needs, POM conducts an extensive annual assessment of all facilities. This assessment, known as the Installation Status Report (ISR), helps identify which facilities are in critical need of support. The financing of facilities maintenance varies by facility, but a majority of our army installations operate under a 50/50 funding split where the state and federal governments partner to share costs equally. During the calendar year of 2011, 58 full-time employees spent nearly 100,000 man-hours repairing and maintaining the 3 million square feet of Oregon Military Department assets.

The Civil Engineering (CE) programs at the Portland and Kingsley Field Air National Guard Bases perform a similar function to the RPOM program. Between the two airbases the CE programs are responsible for 164 buildings totaling 1.25 million square feet. In addition to facilities maintenance the CE programs are responsible for a considerable amount of airfield maintenance (i.e. snow removal, mowing, and sweeping) through the Airport Joint Use Agreement (AJUA). The financing of facilities maintenance varies by airbase. At the Portland Air National Guard Base the funding split is 80/20 with the federal government financing 80 percent of maintenance operations. At the Kingsley Field Air National Guard Base the funding split is 85/15 with the federal government financing 85 percent of maintenance operations.

The environmental services performed by the Operations Program are focused on compliance and stewardship. The Environmental Program works with all Oregon National Guard facilities to ensure compliance with federal, state and local regulations. This includes compliance work related to wastewater treatment plant operations, hazardous materials management, pollution prevention, recycling, air quality, asbestos removal, and drinking water quality. The majority of environmental operations are funded 100 percent with federal funds, with the exception of operations conducted at the two airbases.

24-7 security services are provided by the Operations Program at both the Portland and Kingsley Field Air National Guard bases. Security personnel are instrumental in protecting 48 F-15 fighter jets worth $1.882 billion, and the facilities housing them, from sabotage, theft, vandalism and trespass. To accomplish this mission the Operations Program partners with the Oregon State Police, the FBI, the Secret Service, the Air Force Office of Special Investigation as well as local

law enforcement. Security service costs at both airbases are financed 100 percent with Federal Funds.

The equipment refurbishment program within the Operations Division provides critical products and services to the National Guard worldwide. This program allows states and territories to deploy fully functioning rebuilt equipment, such as generators, for disaster relief, infrastructure support, as well as homeland security operations. The program, located in Clackamas, is funded 100% with Federal Funds and purchases a significant amount of material from local vendors. In addition in employs 60 state employees.

The counterdrug function of the Operations Program conducts a full spectrum campaign that bridges the gap between Department of Defense and Non-DoD institutions in the fight against illicit drugs and transnational threats. Soldiers and Airmen support multiple agencies at the local, state, and federal levels preventing illicit drugs from being grown, imported, manufactured and distributed. This program is funded 100 percent with Federal Funds.

The major cost drivers associated with our Operations Program include personal service costs, rising utility and fuel costs, deferred maintenance costs, and debt service associated with the Seismic Rehabilitation Grant Program within the Office of Emergency Management. To offset the rising utility costs, where possible, both Army and Air facilities are utilizing green technologies to reduce consumption and therefore reduce costs.

To effectively manage facility maintenance our Operations Program relies on successful partnerships. These include partnerships with Treasure Valley Community College, home to the Ontario Armory, and Western Oregon University, home to the Regional Training Institute. Additionally, in 2013 The Dalles Armory will be constructed at the Columbia Gorge Community College. We also partner with the Marine Corp Reserve, US Naval Reserve, US Bureau of Land Management and the US Forest Service in the operation of our Springfield Armed Forces Reserve Center.

Program Justification and Link to 10-Year Outcome

The mission of the Oregon National Guard is to provide the citizens of the State of Oregon and the United States with a ready force of citizen soldiers and airmen, equipped and trained to respond to any contingency. "*When we are needed, we are there"* is our creed, and this creed supports the Governor's safety vision of "Oregonians will be safe where they live, work and play". The Operations Program is the primary support program which allows the Oregon National Guard to be ready to support local and national missions.

Facilities maintenance is the driving force behind the Operations Program. There is a direct nexus between facilities maintenance and the Governor's Safety Strategy 3.3, primarily the requirement for maintained and enhanced facilities to provide for adequate response to natural or human made disasters. Oregon National Guard facilities act as centralized points for the support of communities during a disaster. Our facilities can be utilized to act as Emergency Coordination Centers, food and supply distribution centers, a gathering place for displaced citizens, as well as the launch sites for National Guard support. The majority of our facilities are funded with a matching requirement, so the burden for maintaining these facilities is shared by

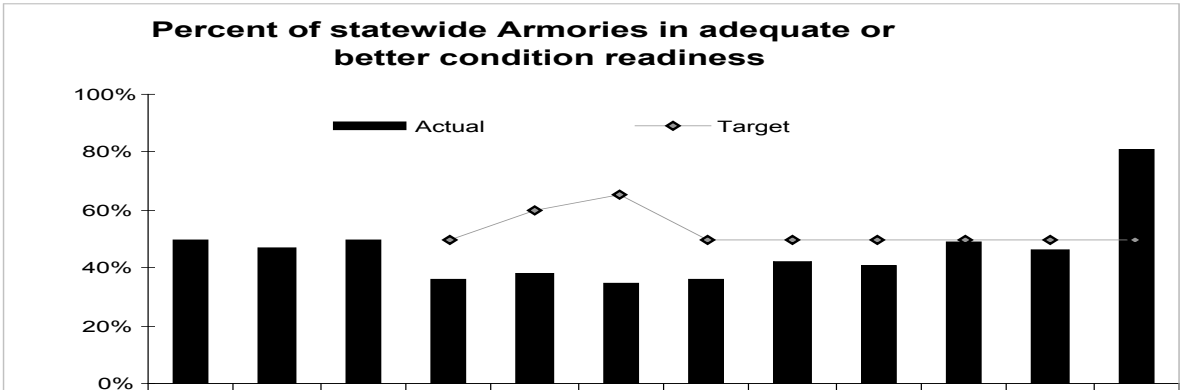
both the state and federal government. This is an important point to realize as it directly affects our ability to successfully leverage critical federal resources.

In additional to the role as a Safety organization the Oregon Military Department acts as an economic stimulator due to federal funding. The almost 9,000 Citizen Soldiers bring valuable Personal Income Tax revenue into the state. Our equipment refurbishment program expends tens of thousands of dollars per month into the economy of the Clackamas region. Our Wildland Fire Program helps battle forest fires which devastate a key economic good, timber, for the state. These actions all tie into the Governor's strategy to "Amplify local and state economic effects to make Oregon's economy more resilient".

The Economy and Jobs policy document calls for "long term energy policy that adds resilience and certainty to a low cost system that diminishes the reliance on carbon intensive fuels". The Operations Program is working in conjuncture with other state agencies on the possible development of a solar energy site in the Christmas Valley Region. This solar site has the possibility to become a long term source of alternative energy for state agencies and private industry.

Program Performance

The primary performance tool of the Operations Program is the Installation Status Report (ISR). The ISR categorizes the readiness of our facilities as being unsatisfactory, adequate or better. Based on the Fiscal Year 2011 ISR 81% of our major facilities are in adequate or better condition. This is due primarily to our state funded Armory Service Life Extension Program. A historical look at this metric is provided below. Another metric utilized by the Operations Program is the Percent of Available Armory Time Rented. During Fiscal Year 2011 approximately 40% of available armory time was rented. These metrics are utilized each year within the Annual Performance and Progress Report submitted to both the Chief Financial Office and the Legislative Fiscal Office.



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Actual	50%	47%	50%	36%	38%	35%	36%	42%	41%	49%	46%	81%
Target				50%	60%	65%	50%	50%	50%	50%	50%	50%

Enabling Legislation/Program Authorization

The National Guard is authorized by the US Constitution Article I, Section 8 Clause 15 and 16. The Oregon National Guard is authorized by Article X of the Oregon Constitution. The Operations Program is authorized by ORS Chapters 396, 398 and 399. Further Federal Authorization is provided by National Guard Regulation 5-1.

Funding Streams

The program is funded with General Fund (6%), Other Funds (4%) and Federal Funds (90%). The Other Funds include Armory Rental Revenue. The Federal Funds carry a match requirement of zero to 50 percent and come from the National Guard Bureau. All Federal Funds are dedicated and subject to sequestration.

Significant Proposed Program Changes from 2011-13

The proposed budget for the Operations Program is an enhancement over the program's Current Service Level budget. The Current Service Level General Fund budget was impacted due to several phase-outs including the elimination of 3 maintenance positions temporarily funded through the end of the 2011-13 biennium. The proposed budget seeks to reestablish positions which were eliminated due to budget reductions during the 2011-13 biennium.

The program is focused on improving the quality of National Guard facilities to enhance our functional role under the Governor's Safety Strategy. The majority of our facilities operate under a matching requirement which ranges from 15% to 50%. An increased state investment will allow the department to continue to improve the quality and condition of our facilities as reported in the Installation Status Report (Please see Program Performance for more details regarding the ISR).

Increased state investment will also allow the department to fully utilize federal investment. With each dollar the state invests we can obtain between 1 and 8.5 dollars of federal investment depending on the funding split. This increased federal investment, along with improvements to National Guard facilities, could lead to new Force Structure opportunities whereby new federal personnel and assets are placed within the state. This would lead to increased tax revenue from federal payroll as well as increased investment in the local economy.

The Operations Program is not planning to shift resources to new activities, but it is focused on improving the way it does business. This includes seeking to maximize federal investment in order to improve the quality of our National Guard facilities in support of the Governor's 10 Year Safety Strategy.

L.R. Kimball℠

TARGETED RESULTS. EXPERTLY MANAGED.
WE STAKE OUR REPUTATION ON IT.

A CDI Company

Business Case for Next Generation 9-1-1 Technology

Presented to the Oregon State Legislature

March 21, 2013

Business Case for Next Generation 9-1-1 Technology

- Business Case Purpose
- Background
- Problem/Opportunity
- Alternatives
- Consequences of Failure to Act

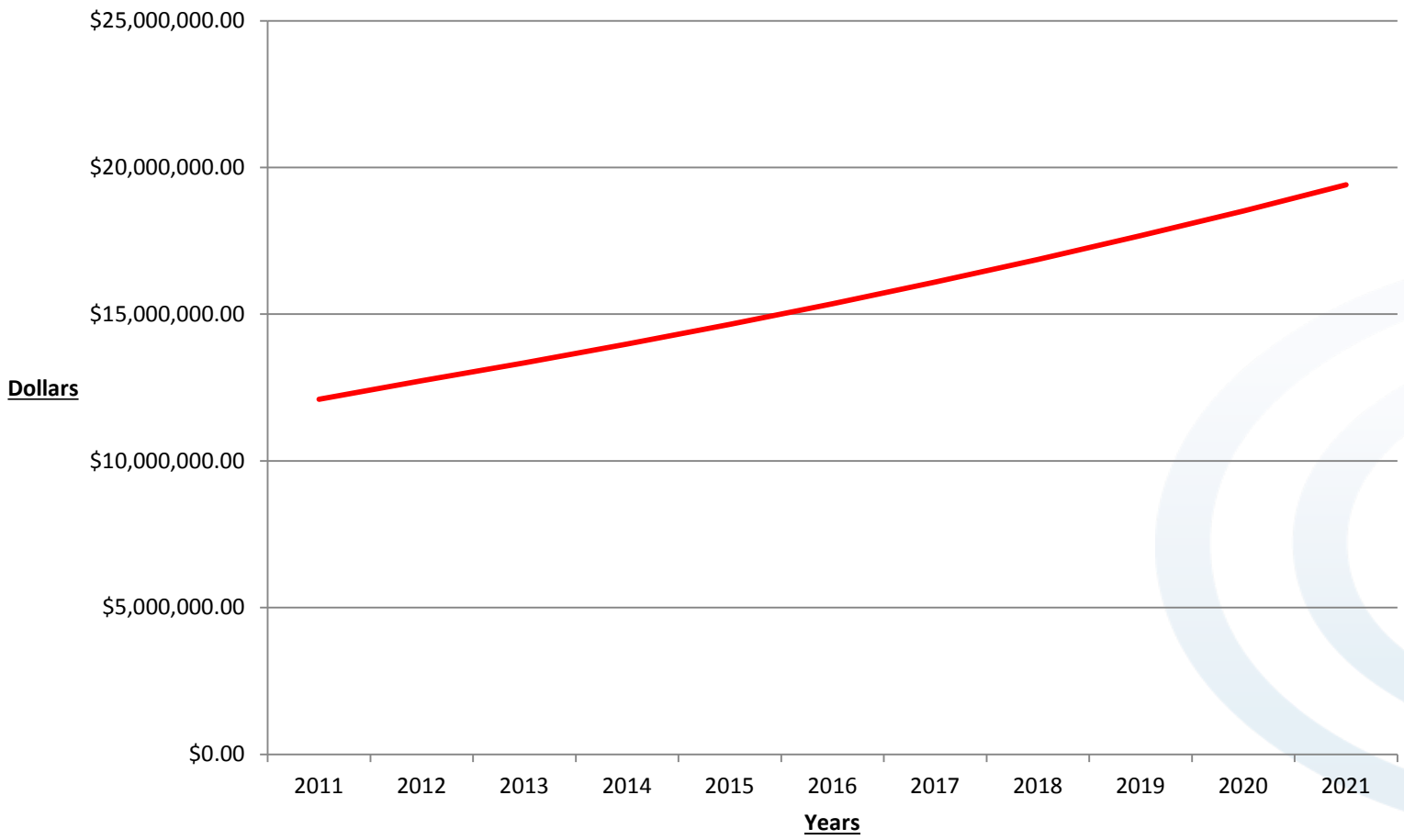
Project Scope Overview -Three Alternatives

- Alternative One – Status Quo
  - Not recommended
- Alternative Two – NG9-1-1 implementation for 48 PSAPs prior to organic PSAP consolidation
  - Recommended
- Alternative Three - Mandated consolidation prior to NG9-1-1 implementation.
  - Not recommended

Alternative One – Status Quo

- Alternative One, Status Quo, is not recommended:
  - PSAP's are at the end-of-life technology with their 9-1-1 Network and 9-1-1 Call Taking equipment
  - Security
  - Substantial financial implications

Alternative One - Costs



Alternative Two - NG9-1-1 Implementation

- Alternative Two, NG9-1-1 Implementation, is recommended:
  - Would improve and provide a higher level of 9-1-1 service across the state for all citizens and visitors to Oregon.
  - NG9-1-1 will improve current system deficiencies when implemented.
  - NG9-1-1 planning and transition has and may continue to result in the organic consolidation of PSAPs across the State.
  - NG9-1-1 will provide the ability to re-route calls in the event of a major disaster.

Alternative Two - Costs

	Year 1	Year 2	Year 3	Annually Years 4 – 10
Call Access Services Non-recurring Costs	$400,000	$400,000	$0	$0
Call Access Services Recurring Costs	$356,940	$530,940	$530,940	$530,940
Core Connections Non-recurring Costs	$500,000	$500,000	$500,000	$0
Core Connections Recurring Costs	$1,623,456	$2,349,984	$2,349,984	$2,349,984
PSAP Connections Non-recurring Costs	$0	$1,925,000	$0	$0
PSAP Connections Recurring Costs	$3,356,700	$4,276,284	$4,276,284	$4,276,284
Total Non-Recurring Costs	**$900,000**	**$2,825,000**	**$500,000**	**$0**
Total Recurring Costs	**$5,337,096**	**$7,157,208**	**$7,157,208**	**$7,157,208**
TOTAL	**$6,237,096**	**$9,982,208**	**$7,657,208**	**$7,157,208**

Alternative Three - Mandated Consolidation

- Alternative Three, Mandated Consolidation, is not recommended:
  - Currently, no authority exists within the current statutory framework to mandate statewide consolidation of 9-1-1 call taking.
  - Consolidating PSAPs would raise costs to the Emergency Communications account:
    - 9-1-1 Network costs would rise annually.
    - Equipment replacement cost would increase.
    - Money spent on consolidating PSAPs on the current system would reduce the funds available to transition to a NG9-1-1 system.
  - Mandated consolidation would result in an emergency communications system that is fractured, inefficient , and would increase costs for municipalities.

Alternative Three - Potential Costs

	Year 1
CAMA Trunking ($6,500 - $10,000 monthly)	$78,000 - $120,000
CPE	$300,000
Current Carrier Network Charges	Unknown
Total Non-recurring Costs	**$300,000**
Total Recurring Costs	**$78,000 - $120,000 +**
TOTAL	**$378,000 - $420,000**

Pricing does not include the cost to build out facilities if needed for any of the regional PSAPs or for a radio network or integration within a specific region – both of which could easily reach into the millions.

Alternative Three - Potential Building Costs

- The number of workstations below correlate to the recommended number of workstations in the Kimball *Consolidation Analysis and Next Generation 9-1-1 Implementation Study.*

Number of Workstations	Square Footage / Workstations	Building Square Footage	Cost/ Square Foot	Total Estimate
5	1000	5,000	$350	$1,750,000
7	1,000	7,000	$350	$2,450,000
9	1,000	9,000	$350	$3,150,000
12	1,000	12,000	$350	$4,200,000

- The size of each regional facility is based on the number of workstations that each region would require based on 9-1-1- call volume.
- The estimated costs apply to the structure and building systems such as heating and air conditioning. Costs such as those associated with site procurement, professional services, furniture and the emergency communications system are not included.
- Construction costs will likely vary from region to region.

Alternatives Comparison - Costs

	Alternative 1 Status Quo	Alternative 2 End-of-life Technology Replacement (NG9-1-1)	Alternative 3 Current PSAP Consolidation (Single Regional PSAP)
Cost	Year 1 - $12.12 million Year 2 - $ 12.67 million Year 3 - $13.24 million Year 4 - $13.83 million	Year 1 - $6.24 million Year 2 - $9.98 million Year 3 - $7.66 million Year 4+ - $7.16 million	Year 1 (Implementation) - $378,000 - $420,000 Facility costs may range from $1.75 million to $4.2 million depending on size and workstation needs

L.R. Kimball Recommendations

Goals	Alternative 1	Alternative 2	Alternative 3
1 Improve 9-1-1 service	No	Yes	No
2 Provide long term stability as technologies emerge	No	Yes	No
3 Meet public expectations	No	Yes	No
4 Provide cost efficiencies	No	Yes	No
5 Comply with OEM 9-1-1 five-year strategic plan	No	Yes	No
6 Support Oregon's Safety Policy Vision	No	Yes	No
7 Encourage data and resource sharing	Yes	Yes	Yes
8 Support ORS 403.100	Yes	Yes	Yes

- Alternative Two meets all of the selection criteria as described in the Business Case Analysis.

Consequences of Failure to Act

- If no action is taken, Oregon will not have a 9-1-1 system with up-to-date technology.

- It will be more expensive to remain on the current frame relay network and the phone companies' analog circuits over the next ten years.

- Doing nothing and leaving the public safety of Oregon citizens to an antiquated analog system that is not compatible with modern communications technologies is not a viable option and becomes cost prohibitive.

Questions