



# SUSTAINABILITY MANAGEMENT SYSTEM



## Challenge

Set up and integrate a sustainability management system that ensures meeting the long-term sustainability goals resulting from this conference.

## Fort Carson 25-Year Goals for Sustainability Management System

Sustainability Management System (SMS) Team Attendees of the Fort Carson Installation Sustainability Workshop, which convened on 4-6 September 2002, produced the following deliverables during this workshop:

- Sustainable Fort Carson Envisioning Statement,
- Identification of Stakeholders,
- Development of a Fort Carson Sustainability Management System Framework, which included:
  - Identification of Management Review and Accountability Process,
  - Process for Reporting Systems to Identify and Elevate Concerns to Higher Headquarters
- Sustainability Motto, and
- SMS Team Charter.

During the closing ceremonies of the workshop, the Command Group signed the SMS team charter, which was developed during the proceedings.

The process, issues, and deliverables are discussed below. This information will be useful in the development of the SMS process and the integration into existing management systems.

## Breakout Group Membership

**Facilitator:** Mr. Tom Broadwater

**Recorder:** Ms. Cynthia Trout

Rank	Name	Organization
COL	Hal K. Alquire	DPW
Ms.	Mary Barber	DECAM
Ms.	Becky Bayer-Hughes	SPPO
Mr.	Tim Blume	WREO
Mr.	Scott Boulden	ITT/DOL
1LT	Carrie Campbell	SPPO
LTC	Michael Curry	DRM
Mr.	Robert Custer	ITT/DOL
Mr.	Lance Dyar	MEDDAC
Mr.	Jim Francek	Center for Creative Learning



# SUSTAINABILITY MANAGEMENT SYSTEM



Rank	Name	Organization
Ms.	Michelle Hanson	CERL
Mr.	Barry Hull	Fort Bragg
Ms.	Sherry Jackson	SPPO
Mr.	Ralph Kinder	DECAM
Mr.	Michael La Duc	Fort Campbell
Ms.	Shari Maiers	DOIM
Mr.	Geoff McKenzie	Camp Dresser McKee
Ms.	Manette Messenger	HQ FORSCOM
LTC	Trent Moxley	HQDA
Mr.	Larry Reisinger	USAFA
COL	Tim Rensema	HQDA
Ms.	Virginia Winter	Sustainability Contractor

## Sustainable Installation Definition Discussion

Mr. Alan AtKisson led a discussion on the sustainable installation concept. This step was necessary to clarify terminology and to get team members to the same level of awareness. Mr. AtKisson tied The Natural Step (TNS) System Conditions to processes and developed a sustainability lens as a means to filter (evaluate) new or existing processes.

### *Building the framework for an SMS for an installation. A tough job...*

- What does a sustainable installation look like?
- Purpose of this discussion was to provide tools to use through a complex process.
- We are working on the cutting edge, a functional SMS does not exist; however, EMS did not exist a few years ago.
- This is a tall order but with 25 years ahead of us it is achievable.
- We are looking to formalize and continue a process that has been going on for decades.
- We talked about changing our course of direction

### *FORSCOM Sustainable Installation Definition*

A Sustainable Installation...

- Optimizes military training
- Provides for the well-being of soldiers and families
  - Great Facilities
  - Strong cultural/community services
- Has a mutually-beneficial relationship with the local community
- Is life-cycle cost-effective to operate
- Systematically decreases its dependence:
  - on fossil fuels and mining;



## SUSTAINABILITY MANAGEMENT SYSTEM



– on non-biodegradable and toxic compounds;

- Does not use resources faster than nature can regenerate them;
- Operates within its “fair share” of earth’s resources

### *The Natural Step (TNS) System Conditions*

*In the sustainable society, nature is not subject to systematically increasing...*

1. .... concentrations of substances extracted from the earth’s crust
2. .... concentrations of substances produced by society
3. .... degradation by physical means

*and in that society...*

4. ...human needs are met worldwide.

### *Fort Carson Sustainability Objectives based on TNS*

Applying the TNS objectives enable Fort Carson to meet system conditions and move towards being a sustainable installation. Each process can be evaluated against the objectives to determine effect.

Fort Carson’s objectives are to systematically decrease our dependence on...

1. ... fossil fuels and mining, particularly of scarce substances; and if we must use them our objective is to ensure they are kept in a technical loop;
2. ... compounds produced by society that are non-biodegradable or toxic; and if we must use them our objective is to ensure they are kept in a technical loop
3. ... activities that encroach on natural areas or that take resources faster than nature can regenerate.
4. ... activities that encroach upon the ability of communities (close or remote) to meet their human needs or that use a large amount of resources in relation to the basic human needs that are satisfied.

### *Sustainability Lens or How to apply TNS system conditions to Installation Life*

The sustainability lens can be used as a means to filter or evaluate changes to processes and can be used to help manage progress toward long-term goals.

- Recommended Sustainability Lens
  - Is process **moving from linear to cyclic**
  - **Zero waste** (system condition 2)
  - **No Damage** (system condition 3) figured out how to manage system without degrading over time
  - **Set ambitious goals** approached in incremental steps
  - Be willing to occasionally take the quantum leap.... **plan on taking the quantum leap**
  - Apply principles; tendency is to go for the low hanging fruit. Do **BEST THINGS FIRST** wherever possible
  - **Consult your compass**. They are all about finding direction. There are many, e.g. “AtKisson Compass”, TNS.
- Planners are people, but people are not planners.



## SUSTAINABILITY MANAGEMENT SYSTEM



- Think about how we are going to communicate this to the installation and to the community at large

### *Issues raised during discussions*

- Reference: Sustainable Installation chart.
  - If we do the bottom 4, that is what gives use the top 3 things on the chart.
  - The template for a sustainable installation is a good start, but we can customize it to Fort Carson Sustainability Vision.
  - Need to integrate major initiatives into this process.
- Paragraph 3 of the operation order.
- We should think about fort Carson as an enduring national treasure
  - We are going through a lot of transformation in the Army. Installation management is transforming to the IMA process. Installations are transforming. This process directly supports the transformation to the objective forces. We don't know what the future military systems are going to be, but we know they will be faster, more lethal, and longer range. We need to think about a flexible installation can adapt to change in weapons systems.
  - 7th ID / Fort Carson Vision Statement. That is what we want to be when we grow up. Objective of sustainability is how do we get to that end state. How are we going to integrate sustainability into the Fort Carson Vision Statement?
  - Overlap of terms. What is a Sustainability Program? What is a Sustainability Management system? What is an Environmental Management System? What are the links? Confusion is natural. SMS is different than the EMS. Want to make certain that they don't trip up each other. Backbone is really sound management systems.
  - Look at the army transformation 3-prong diagram. EMS = Interim Force
  - People, well-being piece. System condition 4 is about taking care of people. In the compass first 3 system conditions take care of the Nature piece. System condition 4 addresses the other compass point. Managing to those conditions is huge.
  - We manage on a daily basis the integration of things into our concept of well-being. For example, does the person have a good job, a good place to live? We already have many examples of things out there that sustainability is an umbrella for.
  - Simply defined: Sustainability is providing a quality of life for all people within the earths boundaries.
  - This discussion moved us into a development of a Sustainable Fort Carson Envisioning Statement (Step 3.2 of our developing SMS Framework and one of our primary deliverables)



# SUSTAINABILITY MANAGEMENT SYSTEM



## Sustainable Fort Carson Envisioning Statement

From a leadership and management perspective Fort Carson will use an approach to ensure that we reach the goals set by other teams by adopting and using a sustainability management system that:

- Assures that goals set by other teams are reached by using a lens for sustainability, and
- Integrates sustainability into all new and existing processes, programs and actions to ensure they
  - Optimize military training and operations
  - Provide for well-being of all stakeholders
  - Are mutually beneficial with the community
  - Are cyclic, not linear
  - Produce Zero Net Waste
  - Do no damage to the environment beyond the natural systems capability to recover or take resources faster than nature can regenerate them
  - Are ambitious goals with incremental steps
  - Are prepared to take quantum leaps in addition to incremental steps
  - Do best things first
  - Consult the compass

## Identification of Stakeholders

A comprehensive list of stakeholders was developed during the workshop. Various levels of stakeholders are required to address different levels of implementation of the sustainability management system. Three stakeholder levels identified were Executive, Management/planning and Implementation. The Installations Sustainability Management Team will determine identification of stakeholder participation at each level at a later date. During the conference presentation of the stakeholders, a recommendation was made requesting senior leadership to assign responsibility for the sustainability management system process by 6 September 2002, where SPPO Takes Lead, DECAM Provides Support, Involve other stakeholders as required, and Enlist other resources, consultants (Send \$).

Recommended SMS Stakeholders	
Commanding General	G3/DPTM
Garrison Commander	G4
Members of EQCC	G5
Community: Managers; PPACG; PACOG	PAO
Strategic Plans & Programs Office	Tenant Operations
DECAM	Tenant Logistics
DPW: Master Planning; Operations; Facilities Board	Battalion/Company ECOs
DRM	MSC
Safety	ACS
DOIM	ADC(S)
DCA	Partners/Suppliers



# SUSTAINABILITY MANAGEMENT SYSTEM



Recommended SMS Stakeholders	
AAFES/DECA	SJA
DOC	Consultants
DOL	Family Member
DCSM	

## Development of a Fort Carson Sustainability Management System Framework

The team reviewed a sustainability management system framework developed by Jamie MacDonald (“An Integrated Framework for Sustainability Management Systems (SMS)”, Dalhousie University, Nov 2001). The MacDonald framework integrates traditional strategic planning elements along with ISO 14001 elements. The team cross-walked the MacDonald Model elements with existing strategies and plans to ensure all elements would be integrated. Bold italic entries identify team additions to the MacDonald SMS framework. The table below identifies the elements of the Fort Carson Sustainability Management System Framework and overlap with existing requirements. The Carson SMS framework expands the management review section and incorporates all elements of ISO 14001 as well as the Carson Process Improvement Model and the Military Decision Making Model.

FORT CARSON SMS FRAMEWORK				
Elements		ISO 14001	Carson Process Improvement Model	Military Decision Making Model
<b>1</b>	<b>PREPARATION</b>			
	1.1 Introduction to sustainability			
	1.2 Determination of stakeholder participation			
	1.3 Preparation of implementation plan			
<b>2</b>	<b>BASELINE ANALYSIS</b>			
	2.1 Identification of environmental aspects	4.2.1	#2	#3
	2.2 Identification of social aspects		#2	#3
	2.3 Determination of significant environmental and social aspects	4.2.1	#2	#3
	<b><i>2.4 Risk Assessment</i></b>		#3	#3
<b>3</b>	<b>PLANNING</b>			
	3.1 Articulation of core values and purpose		#4	#2
	3.2 Envisioning a sustainable organization		#4	#2



# SUSTAINABILITY MANAGEMENT SYSTEM



## FORT CARSON SMS FRAMEWORK

Elements		ISO 14001	Carson Process Improvement Model	Military Decision Making Model
	3.3 Creation of a sustainability policy	4.1	#4	#5-7
	3.4 Identification of key leverage areas and priorities		#4	#4
	3.5 Creation of ultimate and interim objectives and targets	4.2.3	#4	#4
	3.6 Internal strategy development		#4	#4
	3.7 Barrier identification		#4	#4
	3.8 External strategy development		#4	#4
	3.9 Strategy testing and decision-making		#5-6	#4
	3.10 Action development		#5-6	#4
	3.11 Indicator development		#5-6	#4
	3.12 Tool selection			#4
	3.13 Sustainability program development	4.2.4	#7	
	3.14 Identification of legal and other requirements	4.2.2		
<b>4</b>	<b>IMPLEMENTATION AND OPERATION</b>			
	4.1 Training, awareness and competence	4.3.2	#7	#8
	4.2 Communication, disclosure and reporting	4.3.3	#7	#8
	4.3 Documentation, document control and records	4.3.4; 4.3.5	#7	#8
	4.4 Operational control	4.3.6	#7	#8
	4.5 Emergency preparedness and response	4.3.7	#7	#8
	<b>4.6 Structure &amp; Responsibility</b>	4.3.1	#7	#8
	<b>4.7 Public Outreach and Education</b>		#7	
<b>5</b>	<b>CHECKING AND CORRECTIVE ACTION</b>			
	5.1 Monitoring and measurement	4.4.1	#7	#8
	5.2 Non-conformance and corrective and preventive action	4.4.2	#7	#8
	5.3 Sustainability management system audit	4.4.4	#7	#8
	<b>5.4 Establish record-keeping procedures</b>	4.4.3		
<b>6</b>	<b>MANAGEMENT REVIEW</b>	<b>4.5</b>	#7	
	<b>6.1 Must be documented</b>			
	<b>6.2 Identify where and how the process fits into existing Installation Strategic Planning Process</b>			
	<b>6.3 Who does the review?</b>			



# SUSTAINABILITY MANAGEMENT SYSTEM



## FORT CARSON SMS FRAMEWORK

	ISO 14001	Carson Process Improvement Model	Military Decision Making Model
<b>Elements</b>			
6.4 <i>How often is the review done?</i>			
6.5 <i>What is included in the review?</i>			
6.6 <i>What staff is involved in the review and what is their role?</i>			
6.7 <i>What stakeholders are involved in the review and what are their roles?</i>			

After the initial briefings, the team was tasked to address this issue: Develop Reporting Systems to Identify and Elevate Concerns to Higher Headquarters. It was determined that this issue would be covered in Fort Carson SMS Framework in sections 3.6 Internal Strategy Development, 3.7 Barrier Identification, and 3.8 External Strategy Development.

### Sustainability Motto

## ‘SUSTAINABLE FORT CARSON: ENDURING

**G. (Green)**  
**E. (Economy & environment)**  
**M. (Model)**

**OF THE WEST’**

### SMS Team Charter

During the closing ceremonies of the workshop, the Command Group signed this SMS team charter.

Fort Carson’s mission is to train, mobilize, deploy, and sustain the ... 7th Infantry Division and Fort Carson; to be a premier Warfighting Center and an effective power projection platform... ; and to provide a caring environment for all in a climate of cooperation and partnership with civilian and military neighbors.

Our core values are the Army’s values and sustainability is driven by these values.



## SUSTAINABILITY MANAGEMENT SYSTEM



To effectively live our values and accomplish this mission, Fort Carson must be an *enduring* installation ... a *sustainable* installation.

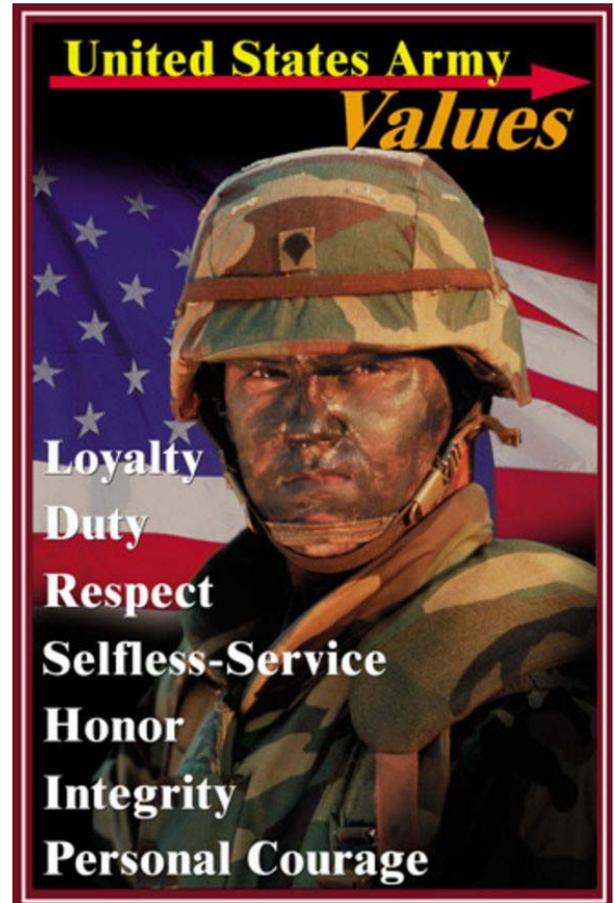
We envision Fort Carson 25 years from now:

- Enduring like a National Treasure
- Inspiring as a model of sustainability
- Restoring the environment
- Returning value to the community

**“Sustainable Fort Carson: Enduring G.E.M. of the West!”**

Besides complying with environmental laws, we commit to pursuing long-term sustainability. We will assess progress and add goals through a continual review and update process. Our initial goals are:

- Southeast Colorado and Fort Carson are a single community of understanding by 2022
- Create regional partnerships to influence the implementation of sustainability plans by 2030
- Sustain all facility and mobility systems from renewable sources with the capacity to generate all facility energy on post by 2027
- Reduce automobile dependency, and provide balanced land use and transportation systems by 2027
- Total water purchased from outside sources reduced by 75% from 2001 baseline.
- Integrated, comprehensive Fort Carson Master Plan prepared and implemented to include local stakeholders. Regular input and modification through Planning Board Meetings.
- All buildings on Fort Carson will meet the Platinum Standard by 2027
- Training ranges (firing ranges, air space, and maneuver lands) capable of supporting current & future military training to standard by 2027
- An installation (FC and PCMS) buffered from external encroachment by 2010
- All stakeholders are trained, compliant, and motivated towards sustainability principles by 2007.
- 100% of DoD and Fort Carson procurement actions support sustainability by 2027
- Zero waste disposal by 2027





## SUSTAINABILITY MANAGEMENT SYSTEM



The process for ensuring progress towards these goals is outlined in Addendum 1 (Fort Carson SMS Framework). The Fort Carson Sustainability Management Framework incorporates:

- EMS ISO 14001
- Fort Carson Process Improvement Model
- Military Decision Making Model
- Other important elements such as Public Outreach and Education

Senior leaders will review progress in conjunction with stakeholders using review and analysis process developed in the Fort Carson SMS Framework.

Signed:

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Garrison Commander  
6 Sep 2002

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Commanding General  
6 Sep 2002