

ZION NATIONAL PARK
ENVIRONMENTAL MANAGEMENT SYSTEM (EMS)
TEMPLATE

Produced in Collaboration with the

CLIMATE FRIENDLY PLACES PROGRAM



Draft as of
March 2, 2005

EMS Manual Template Table of Contents

	Page	ISO Standard
Preface & Glossary of Acronyms	ii	
Introduction	1	4.1
Element 1.0 Scope, Resources, Roles, Responsibility, and Authority	2	4.4.1
Element 2.0 Environmental Commitment Statement	2	4.2
Element 3.0 Environmental Aspects, Objectives, Targets, and Programs	3	4.3.1
Element 4.0 Legal and Other Environmental Requirements.....	3	4.3.2
Element 5.0 Competence, Training, and Awareness.....	4	4.4.2
Element 6.0 Communication.....	5	4.4.3
Element 7.0 Documentation and Control of Documents.....	5	4.4.4 & 4.4.5
Element 8.0 Operational Control.....	6	4.4.6
Element 9.0 Emergency Preparedness and Response	6	4.4.7
Element 10.0 Monitoring, Measurement and Evaluation of Compliance ..	6	4.5.1 & 4.5.2
Element 11.0 Nonconformity, Corrective and Preventive Actions	7	4.5.3
Element 12.0 Records	7	4.5.4
Element 13.0 Internal Audit	8	4.5.5
Element 14.0 Management Review	8	4.6
Exhibits	E-1	
EMS Procedures and Forms	P-1	
Sample EMS Work Instructions.....	S-1	

PREFACE

To address environmental management and climate change and to identify priority areas for Zion's EMS, Zion NP held a two-day workshop in June 2004. The outcome of the workshop was the development of the EMS presented here; the impetus for the workshop was specifically to understand the impacts that global climate change is having on park resources and to identify what the park can do about it.

The workshop, called, "Climate Friendly Parks: Moving from Knowledge to Action" was sponsored through the Climate Friendly Parks Initiative, a collaborative program of the Environmental Protection Agency and the National Park Service. As one of three pilot parks (in addition to Gateway NRA and Glacier NP), Zion NP received assistance in hosting the workshop, which brought together park staff, community stakeholders, and climate change experts to develop a park-wide strategy for climate change mitigation, adaptation, and communication. Broad goals of the workshop were to:

- Educate park employees and partners about climate change in a way that motivates them to make personal choices toward energy efficiency, reducing GHG emissions, and other sustainable environmental practices;
- Demonstrate successes in initiating and implementing sustainable programs at Zion NP and use these successes to foster cultural change in our parks;
- Establish a seamless transition between current and future environmental management programs, accentuating functionality as well as accountability and providing a model for other parks; and
- Model green practices to other parks, agencies, and the public.

What became apparent during the two-day workshop was that "climate friendly" actions were sound targets for better environmental management overall and provide numerous ancillary environmental benefits. Because climate change is strongly linked to emissions of greenhouse gases, Zion NP has elected to include greenhouse gas reduction as an important component of their EMS. Additionally, climate change may be the single greatest environmental threat facing the natural resources of our National Parks. Consequently, Zion NP's goals as a Climate Friendly Park bring more visibility to this issue and serve as a statement of the park's commitment to reducing human-caused threats to the natural environment.

GLOSSARY OF ACRONYMS

CFP – Climate Friendly Parks

ECS – Environmental Commitment Statement

EMP – Environmental Management Plan

EMR – Environmental Management Representative

EMS – Environmental Management System

EMT – Environmental Management Team

GHG – Greenhouse Gas

SEA – Significant Environmental Aspects

INTRODUCTION AND PURPOSE

Mutually Supportive Activities: Implementing Climate Friendly Parks (CFP) Goals and Adopting an EMS at each National Park

An efficient way to establish and achieve Climate Friendly Parks (CFP) goals is to do it with an EMS. EMS's are not only perfectly suited to the task, they are also part of a Federal mandate. EMS's have two primary purposes: to fulfill Federal and state legal requirements and to achieve performance improvement. The CFP initiative assists each park in identifying improvement goals for their EMS. The attached document represents a preliminary draft of Zion National Park's (ZION) EMS manual that includes improvement goals derived from the ZION CFP workshop.

$$\begin{array}{ccc} \textit{Compliance Assurance + Achieving} & & \textit{Achieving Improved Performance} \\ \textit{Improved Performance} & & \\ = & & = \\ = & & \\ \textit{Goals for EMS} & & \textit{Successful CFP Planning and} \\ & & \textit{Implementation} \end{array}$$

According to Executive Order 13148: Greening the Government through Leadership in Environmental Management (E013148), Federal agencies must integrate environmental accountability into day-to-day decision-making and long-term planning. To do so, each Federal facility must implement an EMS by December 31, 2005.

Facility EMS's must have measurable environmental goals, objectives, and targets that are reviewed and updated annually, and EMS performance measures must be incorporated into audit protocols. Applying an EMS approach, the park:

- Says what it does;
- Does what it says;
- Proves that it does what it says; and
- Strives for *continuous improvement*.

If the park already has a formal EMS, then CFP goals can be added to enhance the *continuous improvement portion* of the EMS process. If the park is just starting an EMS program, then pursuing CFP activities jointly with EMS adoption promises not only to enhance results of the climate initiative but also to provide the park with an EMS that is mostly planned and implemented. Both programs benefit from this joint pursuit.

Planning for environmental performance improvement, i.e. establishing baselines, determining priorities, and getting management to commit human and financial resources, all crucial parts of an EMS, will be facilitated by the CFP initiative.

Likewise, developing tools, training programs, and systems for measuring, monitoring, auditing, and correcting problems are common to both CFP and EMS. Also, CFP goals that mostly focus on fuel, lighting, transportation, resource-use, and other energy-use efficiency measures are the same that a park would normally choose as EMS performance improvement goals.

Park-specific EMS examples that have been developed include:

- Climate change mitigation objectives that are measurable and have target dates.

- Active, documented action plans to achieve EMS objectives and targets, including responsibilities, means and timeframes for their completion.
- Sample procedures for general environmental and climate friendly message training for all employees, and specific training for employees whose jobs and responsibilities involve activities directly related to achieving objectives and targets and to compliance with legal requirements.
- Sample procedures for communicating relevant information regarding the EMP and performance improvements, throughout the organization, e.g.:
 - Advertising climate change awareness;
 - Educating visiting and non-visiting public using electronic and other media;
 - Enhancing information exchange with tribes, local governments and park partners; and
 - Incorporating climate change information into resource, fire and education/interpretation programs and materials.
- Operational controls for activities such as:
 - Managing fleet efficiency;
 - Energy efficient retrofitting for park buildings;
 - Implementing sustainable design, construction and deconstruction; and
 - Implementing Green Procurement.
- Audit checklists used to monitor and evaluate progress.
- Superintendent review forms for documenting continuous improvement.

The approach described in this document could be modified to create templates to promote other “greening of the government” initiatives such as environmental purchasing programs, reduction of criteria air pollutant emissions, or waste re-use/recycling.

ZION EMS Manual Template

This manual defines the scope of the ZION EMS and provides a linkage of system documents to the various elements of the ISO 14001:2004 standard. It also meets criteria for an EMS required for membership in the U.S. Environmental Protection Agency’s (EPA) National Environmental Performance Track Program (Performance Track). Performance Track is the environmental excellence program for Federal Agencies, which is called out in E.O. 13148. Being a Performance Track member provides regulatory, and other, incentives.

The control of this Manual is in accordance with the ZION environmental Procedure for Document Control (P-007). All copies of this EMS Manual not marked “CONTROLLED DOCUMENT” are uncontrolled and should be used for reference purposes only.

Amendments to this manual will be issued by the Environmental Management Representative (EMR) or designee following approval by the Park Superintendent.

The **EMS Elements** described in this manual are:

- Scope, resources, roles, responsibility, and authority;
- Environmental commitment statement;
- Environmental aspects, objectives, targets, and programs;
- Legal and other environmental requirements;
- Competence, training, and awareness;
- Communication;

- Documentation and document control;
- Operational control;
- Emergency preparedness and response;
- Monitoring, measurement, and evaluation of compliance;
- Nonconformity, corrective and preventive actions;
- Records; and
- Management review.

Note on the ZION EMS Manual Template: Several documented procedures are required by the ISO 14001 EMS Standard. An index of sample procedures and accompanying forms, which can be used to document conformance with the procedures, is provided as **Exhibit 16--Master Document List**. The procedures, which are provided in the **EMS Procedures and Forms** section of this document, are meant to serve as templates that can be customized by ZION to define roles, responsibilities, activities, and record keeping for that **EMS Element**. When ZION creates its EMS, it will want to adopt a labeling system for identifying procedures, forms, and work instructions. This ZION EMS Manual Template uses a hypothetical labeling system wherein environmental procedures (P) that apply park-wide are labeled P-001 to P-014. The first form associated with P-003 is labeled F-003.01 and the second form associated with P-003 is labeled F-003.02, and so forth. Environmental Work Instructions (WI) (see **Sample EMS Work Instructions** section) that apply to a subset of the whole park are labeled WI-001 to WI-003. The first form associated with WI-001 is labeled WI-001.01 and the second form associated with WI-001 is labeled WI-001.02, and so forth.

Also in this ZION EMS Manual Template are examples of how the park might document and record its EMS (see the list of **Exhibits** below). Usually these are examples of how to complete the recommended forms. Revising these examples should be much easier than starting with a blank page. However, when using these examples, it is crucial to review the requirements of the park in accordance with park policies and the most recent Federal, state, and local requirements.

EMS ELEMENTS

1.0 Scope, Structure, and Responsibility

The ZION EMS provides a mechanism for environmental management throughout all activities, areas, and departments at the park. More specifically, it covers heating and cooling of buildings and residences, transportation of staff and visitors, other energy uses, maintenance activities, grounds-keeping, and other operations. The EMS does take material disposal into account in evaluating the environmental impacts of on-site activities, even though ZION is not the final disposer of its materials. The EMS is designed to cover environmental aspects that the park can control and directly manage and those it cannot control or directly manage but on which the park may have an influence. Environmental aspects take into account planned or new developments, or new or modified activities, products, and services.

EMS roles, responsibilities, and authorities are defined at relevant functions and levels within the park. The Park Superintendent and other top management ensure the availability of resources essential to the implementation and control of the EMS, including: training; human resources; specialized skills; financial resources; and technical and informational services. An appointed environmental management representative (EMR), irrespective of other responsibilities, has primary responsibility for ensuring that the EMS is implemented and maintained in accordance with ISO 14001 and Performance Track and for reporting on the performance of the EMS to the Superintendent and other top management for review and as the basis for improvement. An EMS Coordinator provides routine EMS support and reports directly to the EMR. Members of the Environmental Management Team (EMT), which includes members from each major operation within the park, are responsible for representing their area or department in several facets of the EMS, such as identifying environmental aspects, determining significant environmental aspects (SEAs), setting objectives and targets, implementing programs, reviewing and tracking EMS internal audits results, and serving as an information resource. See **Exhibit 1—Sample ZION Organization Chart and EMS Core Team Description**.

Reference Material

ISO 14001 Standard (4.4.1)

2.0 Environmental Commitment Statement

The ZION Environmental Commitment Statement (ECS) is prepared by the ZION EMT. The ECS is signed by the ZION Superintendent and has the full commitment of ZION management. The EMT reviews the ECS annually (during the January EMT meeting) to ensure that it is current and fully expresses our environmental management priorities at ZION. The Superintendent reviews any new version of the ECS. The ECS covers all activities within the scope of the EMS described above. The ECS, which is appropriate to the nature, scale, and environmental impacts of its activities, products, and services, includes the park's commitment to continuous improvement and prevention of pollution as well as a commitment to meet or exceed relevant environmental legislation, regulations and other requirements. The ECS will be reviewed annually by the Superintendent, communicated to all persons working for or on behalf (hereafter

workforce) of ZION, and made available to the public in accordance with the Communication with Stakeholders procedure. Specifically ZION posts a copy of its ECS on employee bulletin boards, at key locations throughout the park (including all visitor centers and the park headquarters building), and on the park web site. See **Exhibit 2-- ZION's ECS**.

Reference Material

- ISO 14001 Standard (4.2)
- Applicable Procedures and Forms (*A section on EMS procedures and forms is attached*).
- Communication with Stakeholders (P-006) (see also 6.0 *Communication*).

3.0 Environmental Aspects, Objectives, Targets, and Programs

ZION has established a procedure for determining, within the defined scope of the EMS, the environmental aspects of its operations and activities that it can control. The procedure also describes how ZION identifies aspects that it can influence taking into account planned or new developments, or new or modified operations or activities.

The procedure describes how ZION determines which of its environmental aspects will be considered significant. Discussions regarding significance are recorded in EMT meeting minutes. The Significant Environmental Aspects (SEAs) are reviewed at least semi-annually by the EMT or when there is a new or changed process or activity at the park. The EMR maintains EMT minutes and other records. See **Exhibit 3--Sample of ZION's Aspects and Significance Determination**.

The ZION EMT has established and is maintaining documented objectives and targets for each SEA. The objectives and targets are measurable where practicable and consistent with the ECS, including the commitments to prevention of pollution, compliance with legal and other environmental requirements and continuous improvement. These objectives and targets define:

1. The performance objectives (Investigate/Study, Control/Maintain, or Improve) for each SEA;
2. The specific, quantified targets that define those performance objectives; and
3. The planned deadlines for the achievement of those targets.

Objectives and targets are developed considering: legal and other environmental requirements; SEAs; technological options and financial, operational, and business plans; and the views of interested parties. See **Exhibit 4—Sample of ZION Objectives and Targets Form**.

The EMT establishes programs as a means to achieve objectives and targets. These programs define the principal actions to be taken, those responsible for undertaking those actions (at relevant functions and levels of the park), and means and time-frames by which they are to be achieved. The programs are developed by the EMT and approved by the Superintendent. See **Exhibits 5-11—Sample Programs**, which resulted from the May 2004 CFP workshop.

ZION also has established a procedure to ensure that environmental management applies to new developments and new or modified activities, products, or services.

Reference Material

- ISO 14001 Standard (4.3.1, 4.3.3)

Applicable Procedures and Forms

- Environmental Aspects, Objectives, Targets, and Programs Procedure (P-003)
- Aspects and Significant Determination (F-003.01)
- Objectives and Targets (F-003.02)
- Program Form (F-003.03)
- Environmental Review of New Projects (P-004)
- New Projects Environmental Checklist (F-004.01)
- Identification of Legal and Other Environmental Requirements (P-001) (see also 4.0 Legal and Other Environmental Requirements)

4.0 Legal Requirements and Other Environmental Requirements

ZION has established a procedure for identifying, accessing, and communicating legal and other requirements to which the park subscribes. The EMS Coordinator and EMT determine how these requirements apply to ZION's environmental aspects and ensure they are considered in developing, implementing and maintaining its EMS.

The EMS Coordinator identifies, communicates to appropriate parties, and makes available, as necessary, local regulations changes to them. At least annually, the EMS Coordinator reviews the most current national, regional, state, and local legal and other requirements as applicable to ZION. ZION also has established a procedure to secure approval from regulatory agencies for processes and activities affecting air emissions, material management or water discharges, as well as the method for other environmental approvals. See **Exhibit 12—Sample List of ZION's Legal and Other Environmental Requirements.**

Reference Materials

- ISO 14001 Standard (4.3.2)

Applicable Procedures and Forms

- Identification of Legal and Other Environmental Requirements (P-001)
- Legal and Other Environmental Requirements (F-001.01)
- Obtaining Agency Approval (P-002)

5.0 Competence, Training, and Awareness

ZION identifies, plans, monitors, and records training needs for personnel whose work may have a significant impact upon the environment. ZION has established a procedure to train employees at each relevant function and level so they are aware of the ECS, SEAs, their roles and responsibilities in achieving conformance with the ECS and procedures, and with the requirements of the EMS. The park procedure ensures that

any persons performing tasks on its behalf that have the potential to cause significant environmental impact identified by the organization are competent on the basis of appropriate education, training, and experience.

- As part of the Climate Friendly Park initiative, ZION has defined a procedure for educating park staff about activities that affect greenhouse gas emissions. The park incorporates climate change issues into seasonal/new employee training and provides additional training sessions for existing staff, including traditional classroom, field practicum, and distance learning. All park staff members receive training on energy efficiency, both in terms of practical skills and in terms of raising their overall energy conservation awareness. See **Exhibit 13—A Program to Incorporate Climate Change Issues into Staff Training Programs**

The training coordinator is responsible for maintaining employee training records. Appropriate records are monitored and reviewed on a scheduled basis. Competency is determined by the employee's supervisor as specified in P-005. See **Exhibit 14—Training Needs Matrix**.

Reference Material

- ISO 14001 Standard (4.4.2)

Applicable Procedures and Forms

- Environmental Training and Awareness (P-005)
- Training Needs Matrix (F-005.02)

6.0 Communication

ZION has established and will maintain a procedure for internal communication between levels and functions of the park and external communications, i.e., receiving, documenting and responding to relevant communication from external interested parties regarding the EMS. ZION has considered a process for external communication on its SEAs and has decided to make that information available on request.

ZION also is actively pursuing a multi-facet CFP communications initiative. With nearly 3 million visitors annually, ZION realizes it has a tremendous opportunity to demonstrate significant greenhouse gas emissions reductions while simultaneously educating visitors on climate change and what they can do to reduce it through their own actions. ZION intends to catalyze adoption of new climate change mitigation activities by visitors and the surrounding community. See **Exhibit 15--Climate Friendly Parks External and Internal Communications Initiatives**.

Reference Material

- ISO 14001 Standard (4.4.3)

Applicable Procedures

- Communication with Stakeholders (P-006)

- External Stakeholder Communication Record (F-006.01)

7.0 Documentation and Document Control

This EMS Manual includes the ECS, objectives, targets, and describes the main elements of the management system along with their interaction and reference to related documentation. EMS procedures and records required by the ISO 14001 EMS standard and Performance Track are provided in this EMS Manual, see **EMS Procedures and Forms**. These are the documents that ZION has determined to be necessary to ensure effective planning, operation, and control of processes that related to its significant environmental aspects. These documents define the establishment, implementation, and maintenance of the EMS and ensure that the system is maintained in accordance with the ECS, objectives, and targets and is communicated to employees, concessionaires, and other service providers. These procedures are applied park-wide.

ZION has established an environmental procedure for controlling EMS documents. This procedure describes approving documents for adequacy prior to issue, reviewing and updating documents, where documents can be located and how and when they are reviewed. The procedure ensures that current versions are available and that obsolete documents are promptly removed from use or are suitably identified. A list of controlled documents is provided in this EMS Manual, see **Exhibit 16-Master Document List**.

Reference Material

- ISO 14001 Standard (4.4.4, 4.4.5, 4.5.4)

Applicable Procedures and Forms

- Procedure for Environmental Document Control (P-007)
- Master Document List (F-007.01)

8.0 Operational Control

The ZION EMT is responsible for identifying those operations associated with identified SEAs that require operational controls consistent with its ECS, objectives and targets. ZION has planned these operations to ensure that they are carried out under specified conditions by establishing and maintaining documented work instructions to control situations where absence of documented procedures could lead to deviations from the ECS and the objectives and targets. The work instructions stipulate operating criteria, see **Sample EMS Work Instructions** section.

ZION has a procedure for identifying and controlling the SEAs of goods and services used by the park and communicating applicable procedures and requirements to contractors, concessionaires, and other service providers.

Reference Material

- ISO 14001 Standard (4.4.6)

Applicable Procedures and Forms

- Environmental Briefing of Contractors (P-008)
- Environmental Briefing Packet and Method Statement (F-008.1)

9.0 Emergency Preparedness and Response

ZION has an environmental procedure to identify the potential for and to respond to environmental accidents and emergency situations and for preventing and mitigating the environmental impacts that may be associated with them. Emergency methods are reviewed by the EMT on an annual basis and after the occurrence of accidents or emergency situations.

Reference Material

- ISO 14001 Standard (4.4.7)

Applicable Procedures and Forms

- Procedure for Environmental Emergency Preparedness and Response (P-009)
- Environmental Emergency Preparedness and Response Requirements Matrix (F-009.01)

10.0 Monitoring, Measurement, and Evaluation of Compliance

ZION has established a procedure to monitor and measure the key characteristics of its operations and activities that can have a significant impact on the environment. This procedure includes calibration and maintenance requirements and ensures that records will be retained. The procedure also describes requirements to calibrate and maintain monitoring equipment, and to evaluate compliance with relevant environmental legal and ECS requirements.

Reference Material

- ISO 14001 Standard (4.5.1, 4.5.2)

Applicable Procedures and Forms

- Monitoring and Measurement (P-010)
- Environmental Measurement Indicators Log (F-010.01)
- Calibration Log (F-010.02)
- Compliance Tracking Log (F-010.03)
- Environmental Management System and Regulatory Compliance Audits (P-013)

11.0 Nonconformity, Corrective and Preventive Action

ZION has a procedure for defining responsibility and authority for handling and investigating non-conformances, for taking action to mitigate impacts, and for initiating and completing corrective and preventive action. The procedure also describes actions to investigate and eliminate the causes of actual nonconformities, in order to prevent recurrence and actions to eliminate the causes of potential non-conformities to prevent

their occurrence. Any changes in procedures resulting from corrective and preventive actions are implemented and documented.

Reference Material

- ISO 14001 Standard (4.5.3)

Applicable Procedures and Forms

- Corrective and Preventive Action (P-011)
- Corrective and Preventive Action Request (F-011.01)
- Corrective and Preventive Action Tracking Log (F-011.01)

12.0 Records

ZION has a procedure to identify, maintain, and dispose of environmental records. These records include training records and the results of audits and reviews. They are readily retrievable and protected against damage, deterioration, and loss. Each park Division maintains their own environmental records. Record and document retention is also specified in the procedure. See **Exhibit 17-EMS Records Management Table**.

Reference Material

- ISO 14001 Standard (4.5.4)

Applicable Procedures and Forms

- Environmental Records (P-012)
- Index for Environmental Records (F-012.01)

13.0 Audits

ZION has procedure for conducting periodic internal system audits at planned intervals to ensure the EMS has been properly implemented and maintained. A summary of these audits is provided to the Superintendent and other top management. Audits are performed according to a schedule that is based on the environmental importance of an activity, the results of previous audits, and the audit schedule. Auditors are trained and audit records are kept with the Audit Program Leader.

Reference Material

- ISO 14001 Standard (4.5.5)

Applicable Procedures and Forms

- Environmental Management System and Regulatory Compliance Audits (P-013)
- Internal Audits Checklist (F-013.01)
- Internal EMS Audit Schedule Form (F-013.02)
- General Park Employee Checklist for EMS Internal Audits (F-013.03)
- Questionnaire for General Park Employee in Spanish (F-013.04)

14.0 Management Review

ZION has a procedure for EMS review by the Superintendent and other top management. Managers review all elements of the EMS at least annually to ensure its continuing suitability, adequacy, and effectiveness. Meeting minutes record these reviews and are kept by the EMR or designee.

The input to management review includes, among other information:

- Results of EMS audits;
- Communication from external interested parties;
- The performance of the EMS;
- The extent to which objectives and targets have been met;
- Status of corrective and preventive actions;
- Follow-up actions from previous management reviews;
- Changing circumstances; and
- Recommendations for improvement.

The outputs from the management review include any decisions and actions related to possible changes to the ECS, objectives, and other elements of the EMS, consistent with the commitment to continuous improvement.

Reference Material

- ISO 14001 Standard (4.6)

Applicable Procedures and Forms

- Environmental Management System Management Review (P-014)
- Management Review Record (F-014.01)

Record of Revisions

Revision Date	Description	Sections Affected

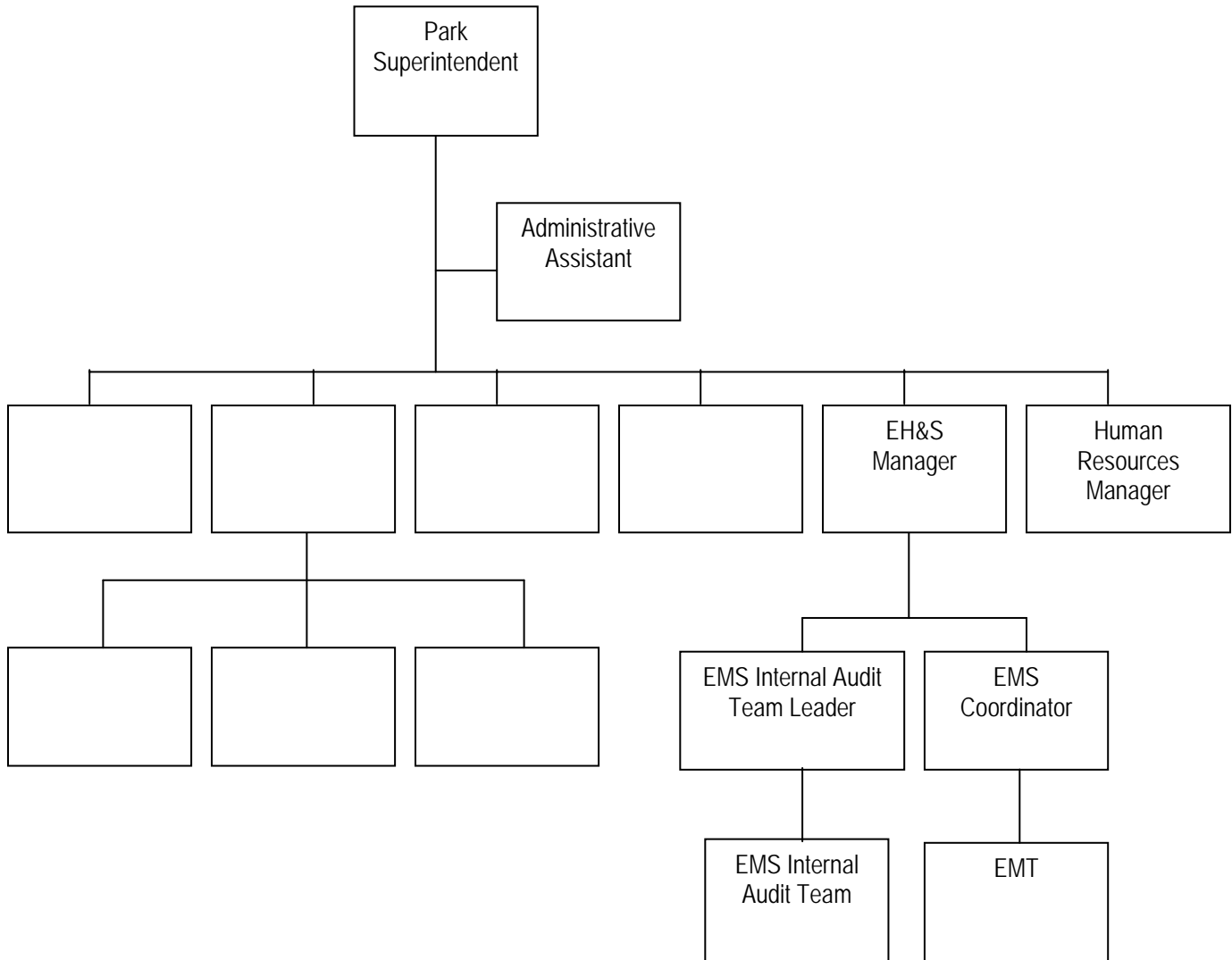
EXHIBITS

Number	Title	Page	ISO Standard
Exhibit 1	Sample ZION Organization Chart and EMS Core Team Description	E-2	4.4.1
Exhibit 2	Sample ZION Environmental Commitment Statement	E-4	4.2
Exhibit 3	Sample ZION's Aspects and Significance Determination	E-5	4.3.2
Exhibit 4 (F-003.01)	Sample ZION's Objectives and Targets	E-9	4.3.1, 4.3.3
Exhibit 5 (F-003.01)	Program to Reduce Fuel Use and GHG Emissions from Employee and Partner Transportation	E-11	4.3.1, 4.3.3
Exhibit 6	Program to Reduce Fuel Use and GHG Emissions from Park Service Fleet	E-14	4.3.3
Exhibit 7	Program to Reduce Fuel Use and GHG Emissions from Visitor Transportation	E-16	4.3.3
Exhibit 8	Program to Reduce Fuel Use And GHG Emissions from Park Service Building And Residence HVAC	E-18	4.3.3
Exhibit 9	Program to Reduce Electricity And Energy Use for Park Service Buildings and Residences	E-21	4.3.3
Exhibit 10	Program to Reduce Water Use	E-22	4.3.3
Exhibit 11	Program to Increase Solid Waste Reduction/Recycling	E-24	4.3.3
Exhibit 12	Sample List of ZION's Legal and Environmental Requirements	E-31	4.3.3
Exhibit 13	Program to Incorporate Climate Change Issues into Staff Training Programs	E-34	
Exhibit 14	Training Needs Matrix	E-36	4.4.2
Exhibit 15	Climate Friendly Parks External and Internal Communications Strategy	E-38	
Exhibit 16	Master Document List	E-41	4.4.4
Exhibit 17	EMS Records Management Table	E-43	4.4.4

Exhibit 1 (See Element 1.0):

Sample ZION Organization Chart and EMS Core Team Description

Note: To be completed by Zion NP



EMS Core Team Function	Name	Regular Position
Management Representative*		
EMS Coordinator**		
EMT***		
Signed		Superintendent
Date:		

***Environmental Management Representative (EMR).** The EMR, a member of ZION's top management has been appointed and, irrespective of other responsibilities, has responsibility and authority for ensuring that the EMS is implemented and maintained in accordance with the requirements of ISO 14001 and Performance Track EMS criteria and for reporting on the performance of the EMS to the Superintendent and other top management for review and as the basis for improvement

****EMS Coordinator.** The EMS coordinator is responsible for identifying, assigning, scheduling, ensuring the necessary support for, and ensuring completion of all tasks relating to the EMS; maintaining the EMS manual under the leadership of the EMR; and leading the EMS Cross-Functional Team.

*****Environmental Management Team (EMT).** The EMT is made up of members of each major activity within the park who represent their areas, departments, activities, or concessionaires in several facets of the EMS, such as identifying environmental aspects, determining significant environmental aspects, setting objectives and targets, implementing action plans, reviewing and tracking internal audit results, and serving as an information resource. The EMT meets regularly.

Exhibit 2 (See Element 2.0):

Environmental Commitment Statement Zion National Park, UT

Zion National Park's (ZION) mission is to ensure the protection, conservation, and enhancement of the valuable cultural, natural, and recreational resources with which we are entrusted. ZION is committed to environmental leadership through development, implementation, and annual review of our Environmental Management System (EMS). Specifically, ZION commits to:

- Meet or exceed all applicable federal, state, and local environmental laws and regulations;
- Conduct operations in an environmentally responsible manner, in accordance with NPS Director's Order #13 and other pertinent directives and Executive Orders relating to the environment;
- Comply with voluntary environmental commitments to which it subscribes, such as achievement of global climate change mitigation goals set as part of the Climate Friendly Parks initiative
- Pursue pollution prevention opportunities;
- Continuously improve environmental performance, including areas not subject to regulations; and
- Share information about environmental performance and the operation of its EMS with the community

To fulfill these commitments, we will incorporate best management practices, foster the sustainable use of natural resources, reduce waste generation, purchase environmentally preferable products, and recycle and reuse all materials where practicable in our operations. We will promote this same level of practice with our concessionaires and our cooperating partners.

We will continue to work cooperatively with federal, state, county, and local governments as well as other organizations and local communities to promote sound environmental management of the park and, to the extent of our authority and influence of the surrounding region. We will strive to educate visitors, recreational users, and other park stakeholders about these concepts.

ZION will provide leadership in working with park concessionaires, suppliers, vendors, contractors, visitors, and patrons to comply with these same principles.

signed/

Superintendent

Date

Exhibit 3 (See Element 3.0):

ZION Aspects and Significance Determination (with input from CFP 2004 Workshop)

Process: All		SIGNIFICANCE DETERMINATION				
ASPECT IDENTIFICATION		SIGNIFICANCE DETERMINATION				
Category/Aspect	Legal Requirements Voluntary Commitments, ZION ECS	Community Concern	Waste Reduction or Pollution Prevention Potential	Potential Impact to the Environment	Significant (S) Not Significant (N)	Rationale for Significance (S) or Nonsignificance (N)
INPUTS						
Energy:						
Fuel for employee and partner transportation			Yes		S	From 2004 CFP workshop proceedings
Fuel for visitor transportation			Yes		S	From 2004 CFP workshop proceedings
Fuel for park service fleet			Yes		S	From 2004 CFP workshop proceedings
Fuel for park service building and residence HVAC			Yes		S	From 2004 CFP workshop proceedings
Electricity for park service buildings and residences			Yes		S	From 2004 CFP workshop proceedings
Other						
Water:						
Groundwater			Yes		S	From 2004 CFP workshop proceedings
Surface water						
Other						
Materials:						
Lumber						
Sand						
Gravel						
Cement						
Sheet Rock						
Lime						
Soil						
Steel						

Process: All						
ASPECT IDENTIFICATION		SIGNIFICANCE DETERMINATION				
Category/Aspect	Legal Requirements, Voluntary Commitments, ZION ECS	Community Concern	Waste Reduction or Pollution Prevention Potential	Potential Impact to the Environment	Significant (S) Not Significant (N)	Rationale for Significance (S) or Nonsignificance (N)
Other						
Supplies/Consumables:						
Lumber (forms)						
Gloves, etc						
Caulking						
Packaging						
Pallets						
Silt fences, straw bales, etc.						
Other						
Chemicals (see Material Safety Data Sheet log):						
Equipment/Maintenance Products						
Paints						
Solvents						
Aerosols						
Concrete add mixtures						
Other						
OUTPUTS						
Air Emissions:						
VOCs						
Dust/Particulate Matter						
NOx						
SOx						
CO						
CO ₂ and other GHGs			Yes		S	From 2004 CFP workshop proceedings
Other						
Nuisance:						
Noise						

Process: All						
ASPECT IDENTIFICATION		SIGNIFICANCE DETERMINATION				
Category/Aspect	Legal Requirements, Voluntary Commitments, ZION ECS	Community Concern	Waste Reduction or Pollution Prevention Potential	Potential Impact to the Environment	Significant (S) Not Significant (N)	Rationale for Significance (S) or Nonsignificance (N)
Odor						
Light						
Other						
Solid Wastes:						
Paper			Yes		S	From 2004 CFP workshop proceedings
Other Materials/residuals			Yes		S	From 2004 CFP workshop proceedings
Packaging			Yes		S	From 2004 CFP workshop proceedings
Pallets			Yes		S	From 2004 CFP workshop proceedings
Construction/demolition debris			Yes		S	From 2004 CFP workshop proceedings
Regulated (hazardous waste)			Yes		S	From 2004 CFP workshop proceedings
Other						
Discharges to Water:						
Soil (fill material)						
Storm water (silt, oils, etc.)						
Dewatering						
Wash water						
Make up water						
Irrigation discharges						
Other						
Spillage:						
Petroleum based fuels						
Automotive fluids						
Equipment fluids						
Chemical						
Solvents						
Other						
Habitat Destruction:						
Wetlands						

Process: All						
ASPECT IDENTIFICATION		SIGNIFICANCE DETERMINATION				
Category/Aspect	Legal Requirements, Voluntary Commitments, ZION ECS	Community Concern	Waste Reduction or Pollution Prevention Potential	Potential Impact to the Environment	Significant (S) Not Significant (N)	Rationale for Significance (S) or Nonsignificance (N)
Vegetation						
Protected Lands						
Wildlife						
Other						

Contact Person: _____ Date Completed: _____

Record of Revisions

Date	Description of Revision	Sections Affected

Exhibit 4 (See Element 3.0):

ZION Objectives and Targets Summary (with input from CFP 2004 Workshop)

SEA Category/Objective	Type (Improve, Control, Study)	Targets (*suggested target, no commitment)
INPUTS		
Energy:		
Reduce fuel use and GHG emissions from employee and partner transportation (See Exhibit 5)	Improve	Fuel use - 15% reduction based on 2003 usage by January 2006*
Reduce fuel use and GHG emissions from park service fleet (See Exhibit 6)	Improve	Fuel use - 15% reduction based on 2003 usage by January 2006*
Reduce fuel use and GHG emissions from visitor transportation (See Exhibit 7)	Improve	Fuel use - 15% reduction based on 2003 usage by January 2006*
Reduce fuel use and GHG emissions from park service building and residence HVAC (See Exhibit 8)	Improve	Fuel use - 15% reduction based on 2003 usage by January 2006*
Reduce electricity use for park service buildings and residences (See Exhibit 9)	Improve	Electricity and Energy use - 15% reduction based on 2003 usage by January 2006*
Water:		
Reduce water use (See Exhibit 10)	Improve	Water use - 15% reduction based on 2003 usage by January 2006*
Materials:		
Supplies/Consumables:		
Chemicals:		
OUTPUTS		
Air Emissions:		
Reduce CO ₂ and other GHG Emissions (Exhibit 13 & 15)	Improve	GHG emissions – 15% reduction based on 2003 usage by January 2006*
Nuisance:		
Solid Wastes:		
Increase solid waste reduction/recycling (See Exhibit 11)	Improve	Solid Waste reduction - 15% reduction based on 2003 usage by January 2006*
Discharges to Water:		
Spillage:		
Habitat Destruction:		
Contact Person: _____	Date Completed: _____	

Record of Revisions

Date	Description of Revision	Sections Affected

Exhibit 5 (See Element 3.0):

Program to Reduce Fuel Use and GHG Emissions from Employee and Partner Transportation (from CFP 2004 Workshop)

Significant Environmental Aspect:	Fuel use and GHG emissions from employee and partner transportation	Area/Department(s):	Total Park
Objective:	Reduce Fuel Use and GHG emissions	Process:	All
Target:	Fuel Use – 15% based on 2003 Usage by January 2006		
Objective Type:	Control/Maintain <input type="checkbox"/>	Study or Investigate <input type="checkbox"/>	Improve <input checked="" type="checkbox"/>

Project: Obtain Alternative Transportation: Employees and NPS Partners				
Partners: UTA, DOI, EPA, Zion, Xanterra, Zion Natural History Association (ZNHA), PTI, Springdale				
Measure of Success: Double the current percent of staff that are using alternative transportation (14% now).				
Task/Action Items	Responsible Party	Project Start Date	Project Completion Date	Deliverable
Contact UTA	Jeff & Denise			
Survey staff on interest in van/carpool	Jeff & Denise			
Encourage alternative scheduling based on results from employee driving survey	Jeff & Denise			
Identify van purchase money	Jeff & Denise			
Will find out the availability of money through Ride Share by 5/20/04	Jeff & Denise			
Identify operational costs-vouchers, etc.	Jeff & Denise			
Identify park-driven incentives/recognition for those participating (e.g. parking spaces for carpool vehicles)	Jeff & Denise			
Contact Person: _____		Date Completed: _____		

Project: Employ Alternative Fuels (E-10 and B-20)				
Partners: EPA, DOD, National Biodiesel Board, "Ethanol Board"				
Measure of Success: TBD				
Task/Action Items	Responsible Party	Project Start Date	Project Completion Date	Deliverable
Find suppliers	Malinda Flatray (contracting officer), Jeff Ballard (roads & trails)			
Identify how to pay for it (e.g., EPA Diesel Retrofit grant)	Malinda Flatray (contracting officer), Jeff Ballard (roads & trails)			
Educate public with plaques on vehicles	Malinda Flatray (contracting officer), Jeff Ballard (roads & trails)			
Improve efficiency of vehicles	Malinda Flatray (contracting officer), Jeff Ballard (roads & trails)			
Contact Person: _____		Date Completed: _____		

Project: Supply Loaner Bikes for Employees				
Partners: Zion National History Association (ZNHA)				
Measure of Success: TBD				
Task/Action Items	Responsible Party	Project Start Date	Project Completion Date	Deliverable
Check interest through survey	Jeff Bradybaugh & Denise			
Test out using two bikes that have already been used	Jeff Bradybaugh & Denise			
Contact Person: _____		Date Completed: _____		

Record of Revisions

Date	Description of Revision	Sections Affected

Exhibit 6 (See Element 3.0):

Program to Reduce Fuel Use and GHG Emissions from Park Service Fleet (from CFP 2004 Workshop)

Significant Environmental Aspect:	Fuel use and GHG emissions from park service fleet	Area/Department(s):	Total Park
Objective:	Reduce Fuel Use and GHG emissions	Process:	All
Target:	Fuel Use – 15% based on 2003 Usage by January 2006		
Category:	Control/Maintain <input type="checkbox"/>	Study or Investigate <input type="checkbox"/>	Improve <input checked="" type="checkbox"/>

Project: Improve Fleet Management				
Partners: Vendors, Other parks, GSA, Acme, Regional Office, Ernie Oaks of the Clean Cities Program				
Measure of Success: TBD				
Task/Action Items	Responsible Party	Project Start Date	Project Completion Date	Deliverable
Assess number of flex fuel vehicles already in park. Currently the GSA ethanol/unleaded vehicles include: - Tahoe 2002 G62-12507 - Taurus Wagon 2000 G21-00748 - Contour LX 1999 G12-16795	Malinda Flatray			
Tell employees which vehicles use ethanol at a meeting and/or label on the vehicle dash to facilitate awareness.	Malinda Flatray			
Find fuel source of E-85	Malinda Flatray			
Establish storage for E-85 (negotiate with local vendors).	Malinda Flatray			
Create a fleet management plan – each division contributing.	Malinda Flatray			
Continue vehicle sharing with other parks during off seasons (Lake Mead during the summer).	Malinda Flatray			
Order new vehicles as needed: Hybrid, flex-fuel, and high-mpg vehicles	Malinda Flatray			
Contact Person:		Date Completed: _____		

Record of Revisions

Date	Description of Revision	Sections Affected

Exhibit 7 (See Element 3.0):

Program to Reduce Fuel Use and GHG Emissions from Visitor Transportation (from CFP 2004 Workshop)

Significant Environmental Aspect:	Fuel use and GHG emissions from visitor transportation	Area/Department(s):	Total Park
Objective:	Reduce Fuel Use and GHG emissions	Process:	All
Target:	Fuel Use – 15% based on 2003 Usage by January 2006		
Category:	Control/Maintain <input type="checkbox"/>	Study or Investigate <input type="checkbox"/>	Improve <input checked="" type="checkbox"/>

Project: Expand Shuttle Bus Service				
Partners: PTI, Utah Department of Transportation				
Measure of Success: Expand Shuttle Bus Service				
Task/Action Items	Responsible Party	Project Start Date	Project Completion Date	Deliverable
Assess need/cost for the shoulder season and holidays.	Jacque Lavelle			
Assess need/cost for the East side.				
Identify/evaluate options.				
Identify funding sources: TEA-Federal Bill, transportation intern				
Reserve the planning time to address the tunnel issue.				
Contact Person: _____		Date Completed: _____		

Project: Increase Bicycle Accessibility of Park				
Partners: PTI, Utah Department of Transportation				
Measure of Success: TBD				
Task/Action Items	Responsible Party	Project Start Date	Project Completion Date	Deliverable
Explore ways to expand bike trails (e.g., extra lane on the road, but only if historic preservation is not threatened).	Jim Butterfus			
Explore the feasibility of loaner bike program for visitors.	Ron Terry			
Contact Person: _____			Date Completed: _____	

Project: Reduce Vehicle Idling				
Partners: None.				
Measure of Success: TBD				
Task/Action Items	Responsible Party	Project Start Date	Project Completion Date	Deliverable
Issue entrance permits	Rick DeLappe			
Swipe system at entrance stations	Rick DeLappe			
Educate visitors to turn off cars while waiting	Rick DeLappe			
Updated transportation study (transportation intern)	Rick DeLappe			
Contact Person: _____			Date Completed: _____	

Record of Revisions

Date	Description of Revision	Sections Affected

Exhibit 8 (See Element 3.0):

Program to Reduce Fuel Use and GHG Emissions from Park Service Building and Residence HVAC (from CFP 2004 Workshop)

Significant Environmental Aspect:	Fuel use and GHG emissions from park service building and residence HVAC	Area/Department(s):	Total Park
Objective:	Reduce Fuel Use and GHG emissions	Process:	All
Target:	Fuel Use – 15% based on 2003 Usage by January 2006		
Category:	Control/Maintain <input type="checkbox"/>	Study or Investigate <input type="checkbox"/>	Improve <input checked="" type="checkbox"/>

Project: Automate Controls at Headquarters				
Partners: Regional Office				
Measure of Success: Cost savings (energy, maintenance); Employee Satisfaction				
Task/Action Items	Responsible Party	Project Start Date	Project Completion Date	Deliverable
Get funding approved.	Shawn Norton			
Write contract	Jim Lutterman & Jim Starling			
Contact Person: _____		Date Completed: _____		

Project: Educate Employees & Residents				
Partners: UP&L				
Measure of Success: Resident's cost savings (utilities); increased community awareness.				
Task/Action Items	Responsible Party	Project Start Date	Project Completion Date	Deliverable
Develop the message (involve residents).	TBD			
Obtain official support	TBD			
Create handbook	TBD			
Host meetings	TBD			
Contact Person:			Date Completed:	

Project: Retrofit Headquarters (Emphasize Renewable Energy)				
Partners: DOE; NREL; SunWise; UP&L; Regional Office				
Measure of Success: Cost reduction and Energy Savings; Commission building				
Task/Action Items	Responsible Party	Project Start Date	Project Completion Date	Deliverable
DOE Audit	Jim Lutterman			
Submit PMIS project	TBD			
Compliance	Kezia Nielsen			
Obtain Approval and Funding	Shawn Norton			
Confirm Design	TBD			
Contact Person:			Date Completed:	

Project: Landscape Master Plan for Park				
Partners: Universities, Concessionaires				
Measure of Success: Standards & Guidelines; Complete Master Plan; Funding Established				
Task/Action Items	Responsible Party	Project Start Date	Project Completion Date	Deliverable
Accurate map of developed areas	Lisa & Cheryl			
Develop standards and guidelines	Lisa & Cheryl			
Explore shade structure use	Lisa & Cheryl			
Fund and plan irrigation redesign (south campground)	Lisa & Cheryl			
Develop project plan	Lisa & Cheryl			
Obtain funding	Lisa & Cheryl			
Contact Person: _____			Date Completed: _____	

Project: Adopt Sustainable Design (LEED)				
Partners: USGBC; Concessionaires; Contractors				
Measure of Success: Policy Established and Compliance with Standards				
Task/Action Items	Responsible Party	Project Start Date	Project Completion Date	Deliverable
Park-wide Policy	Green Team			
Research other design standards	Jim			
Modify contract language (Architect)	Green Team			
Contact Person: _____			Date Completed: _____	

Record of Revisions

Date	Description of Revision	Sections Affected

Exhibit 9 (See Element 3.0):

Program to Reduce Electricity and Energy Use for Park Service Buildings and Residences (from CFP 2004 Workshop)

Significant Environmental Aspect:	Electricity and energy use for park service buildings and residences	Area/Department(s):	Total Park
Objective:	Reduce Electricity and Energy use	Process:	All
Target:	Electricity and Energy Use – 15% based on 2003 Usage by January 2006		
Category:	Control/Maintain <input type="checkbox"/>	Study or Investigate <input type="checkbox"/>	Improve <input checked="" type="checkbox"/>

Project: Park-wide Lighting and Energy Efficiency				
Partners: TBD				
Measure of Success: TBD				
Task/Action Items	Responsible Party	Project Start Date	Project Completion Date	Deliverable
Finish installing 70% efficient lighting in administrative buildings, residences, concessions, etc.	Jim Lutterman			
Address maintenance issues of energy efficient technologies	TBD			
Contact Person: _____		Date Completed: _____		

Record of Revisions

Date	Description of Revision	Sections Affected

Exhibit 10 (See Element 3.0):

Program to Reduce Water Use (from CFP 2004 Workshop)

Significant Environmental Aspect:	Water Use	Area/Department(s):	Total Park
Objective:	Reduce Water Use	Process:	All
Target:	Water Use – 15% based on 2003 Usage by January 2006		
Category:	Control/Maintain <input type="checkbox"/>	Study or Investigate <input type="checkbox"/>	Improve <input checked="" type="checkbox"/>

Project: Low-flow Fixtures throughout the Park				
Partners: Concessionaires				
Measure of Success: Reduced water use; Installation of 100%				
Task/Action Items	Responsible Party	Project Start Date	Project Completion Date	Deliverable
Replace remaining toilets	Jim Starling & Concess. Rep.			
Finish installing fixtures (concessionaires)	Jim Starling & Concess. Rep.			
Contact Person: _____		Date Completed: _____		

Project: Address conservation in PTI & Visitor's Center				
Partners: TBD				
Measure of Success: Reduced water use; Installation of 100%				
Task/Action Items	Responsible Party	Project Start Date	Project Completion Date	Deliverable
Address conservation in PTI and Visitor's Center	Jim Starling			
Make use of irrigation with river water and water from ditch systems	B&U Staff			
Contact Person: _____		Date Completed: _____		

Record of Revisions

Date	Description of Revision	Sections Affected

Exhibit 11 (See Element 3.0):

Program to Increase Solid Waste Reduction/Recycling (from CFP 2004 Workshop)

Significant Environmental Aspect:	Solid waste reduction/recycling	Area/Department(s):	Total Park
Objective:	Increase Solid Waste Reduction/Recycling	Process:	All
Target:	Solid Waste Reduction – 15% based on 2003 Usage by January 2006		
Category:	Control/Maintain <input type="checkbox"/>	Study or Investigate <input type="checkbox"/>	Improve <input checked="" type="checkbox"/>

Project: Establish a Green Team				
Partners: Concessionaires, Community Members				
Measure of Success: List of action items tracked over time to show progress				
Task/Action Items	Responsible Party	Project Start Date	Project Completion Date	Deliverable
Decide on frequency of meetings	Yvonne			
Choose mode of communication	Yvonne			
Contact Person: _____			Date Completed: _____	

Project: Complete ISWAP				
Partners: Zion Natural History Association (ZNHA); Regional Office; Xanterra				
Measure of Success: Obtaining funding; Understanding of waste streams through gathered data.				
Task/Action Items	Responsible Party	Project Start Date	Project Completion Date	Deliverable
Select a park liaison	Jim Starling			
Participate in site visit	Jim Starling			
Alert staff to ISWAP	Jim Starling			
Provide data to contractor	Jim Starling			
Actively engage in ISWAP process and review draft of operational plan	Jim Starling			
Complete ISWAP by September 2004	Jim Starling			
Write grant proposals and park service funding requests	Jim Starling			
Contact Person: _____			Date Completed: _____	

Project: Educate Local Community				
Partners: Xanterra; PTI; ZNHA; EPA; Utah Department of Transportation				
Measure of Success: Successful education of local community.				
Task/Action Items	Responsible Party	Project Start Date	Project Completion Date	Deliverable
Define the community	Leslie & Julie			
Develop a community outreach strategy	Leslie, Julie & Ron			
Determine media for communication	Leslie, Julie & Ron			
External education by presenting current efforts at town meetings	Leslie, Julie & Ron			
Contact Person: _____			Date Completed: _____	

Project: Educate Staff and Concessionaires				
Partners: TBD				
Measure of Success: Successful education of staff and concessionaires				
Task/Action Items	Responsible Party	Project Start Date	Project Completion Date	Deliverable
Prepare an orientation packet and provide information on policies and practices on recycling	Leslie			
Internal education	Leslie			
Contact Person: _____			Date Completed: _____	

Project: Green Purchasing/Reuse in Office				
Partners: TBD				
Measure of Success: Successful incorporation of green purchasing and reuse policies in park office.				
Task/Action Items	Responsible Party	Project Start Date	Project Completion Date	Deliverable
Identify EPP resources: Increase recycled content of paper & purchase local materials	Kathy Allred			
Reduce purchasing through reuse	Malinda Flatray			
Educate park employees with purchasing authority	Kathy Allred			
Purchase double-sided printers	Malinda Flatray			
Contact Person: _____			Date Completed: _____	

Project: Green Purchasing/Reuse outside Office				
Partners: TBD				
Measure of Success: Successful incorporation of green purchasing and reuse policies outside park office.				
Task/Action Items	Responsible Party	Project Start Date	Project Completion Date	Deliverable
Research cost of EP supplies: Glass crusher and shredder for bottles	Kathy			
Interface with maintenance	Kathy			
Create sand to be used in greenhouse	Kathy			
Write memo on operational plan	Kathy			
Contact Person: _____			Date Completed: _____	

Project: Green Purchasing/Reuse of Fleet				
Partners: TBD				
Measure of Success: Successful incorporation of green purchasing and reuse policies of the park's transportation fleet.				
Task/Action Items	Responsible Party	Project Start Date	Project Completion Date	Deliverable
Scope out availability of ethanol	Kathy			
Scope out cost difference	Kathy			
Look at existing vehicle cost and cost of switching	Kathy			
Fleet management plan	Kathy			
Contact Person: _____			Date Completed: _____	

Project: Expand Recycling Program to Include Visitors				
Partners: TBD				
Measure of Success: TBD				
Task/Action Items	Responsible Party	Project Start Date	Project Completion Date	Deliverable
Purchase equipment: Bailer or shredder for plastic; crusher for aluminum; and second waste trailer	Denise			
Increase size of waste trailers to reduce number of trips to deliver recyclables	Denise			
Assign at least one full time person to deal with recycling	Denise			
Use alternative fuel vehicles to haul recycling	Denise			
Reevaluate hauling needs and costs while ensuring the capability of the park's infrastructure.	Denise			
Require concessionaires to charge a deposit for recyclables	Denise			
Create ads about recycling activities	Denise			
Educate visitors	Denise			
Contact Person:			Date Completed:	

Project: Ramping up the Green Filter				
Partners: TBD				
Measure of Success: TBD				
Task/Action Items	Responsible Party	Project Start Date	Project Completion Date	Deliverable
Research local availability	Jeff Ballard, Malinda Flatray, and Xanterra			
Implement recommendation of fleet management plan: Number of vehicles, size, and type	Jeff Ballard, Malinda Flatray, and Xanterra			
Write grant applications for AFV	Jeff Ballard, Malinda Flatray, and Xanterra			
Contact Person: _____			Date Completed: _____	

Project: Regional Coordination				
Partners: TBD				
Measure of Success: TBD				
Task/Action Items	Responsible Party	Project Start Date	Project Completion Date	Deliverable
Build partnerships with county	TBD			
Reach out to businesses and encourage them to process recyclables or reuse materials	TBD			
Demonstrate commitment	TBD			
Contact Person: _____			Date Completed: _____	

Project: Internal Coordination				
Partners: None.				
Measure of Success: TBD				
Task/Action Items	Responsible Party	Project Start Date	Project Completion Date	Deliverable
Streamline operations between Zion NP and Xanterra concessions	Jacque Lavelle and Denise Louie			
Contact Person: _____			Date Completed: _____	

Project: Tracking Results of Programs/Initiatives				
Partners: TBD				
Measure of Success: TBD				
Task/Action Items	Responsible Party	Project Start Date	Project Completion Date	Deliverable
Use tools to calculate the benefits of recycling	Denise Louie			
Contact Person: _____			Date Completed: _____	

Record of Revisions

Date	Description of Revision	Sections Affected

Exhibit 12 (See Element 4.0):

List of ZION Legal and Other Environmental Requirements

This table lists descriptions of legal and other environmental requirements for ZION. This example is based on F-001.01, Form for Legal and Other Requirements.

LEGAL REQUIREMENTS

U.S. Federal Environmental Laws:

- Clean Air Act (CAA) and CAA Amendments
- Clean Water Act (CWA) and CWA Amendments
- Safe Drinking Water Act (SDWA)
- Resource Conservation and Recovery Act (RCRA)
- Comprehensive Environmental Response Compensation and Liability Act (CERCLA)
- Emergency Planning and Community Right-to-Know Act (EPCRA)
- Toxic Substances Control Act (TSCA)
- Hazardous Materials Transportation Act (HMTA) as amended by the Hazardous Materials Transportation Uniform Safety Act (HMTUSA)

U.S. Federal Environmental Regulations:

Air:

- 40 CFR 50 (U.S. Environmental Protection Agency [EPA] regulations on primary and secondary National Ambient Air Quality Standards [NAAQS])
- 40 CFR 52 (EPA regulations for state Prevention of Significant Deterioration [PSD] programs)
- 40 CFR 61 (EPA regulations for National Emissions Standards for Hazardous Air Pollutants [NESHAPs])
- 40 CFR 70 (EPA regulations on state operating permit programs)
- 40 CFR 82 (stratospheric ozone protection regulations)

Water:

- 40 CFR 112 (EPA regulations on oil pollution prevention)
- 40 CFR 117 (EPA regulations on determination of reportable quantities for hazardous substances)
- 40 CFR 123 (EPA regulations on state pollution discharge elimination system permit programs)

Solid and Hazardous Waste:

- 40 CFR 260 (EPA general requirements for hazardous waste management)
- 40 CFR 261 (EPA regulations for identifying hazardous waste)
- 40 CFR 262 (EPA regulations for hazardous waste generators)
- 40 CFR 268 (EPA restrictions on land disposal of certain hazardous wastes)
- 40 CFR 273 (EPA standards for universal waste management)
- 40 CFR 279 (EPA standards for managing used oil)

CERCLA/EPCRA:

- 40 CFR 300 (EPA National Oil and Hazardous Substance Contingency Plan)
- 40 CFR 302 (EPA designation, reportable quantities, and notification requirements for hazardous substances)
- 40 CFR 355 (EPA regulations for emergency planning and notification)
- 40 CFR 370 (EPA hazardous chemical reporting and community right-to-know requirements)
- 40 CFR 372 (EPA toxic chemical release reporting regulations)

Other Federal:

- CFR 700-799 (TSCA regulations regarding asbestos, PCBs, toxic chemical usage and reporting, as appropriate)
- 49 CFR 171-397 (U.S. Department of Transportation regulations regarding transportation of hazardous materials, as required for contracted transporters of hazardous materials)

Utah Environmental Statutes:

- Utah Code, Title I, State Sovereignty and Management
- Utah Code, Title III, Public Services and Regulations
- Utah Title IV, Public Health
- Utah Title V, Agriculture
- Utah Title X, Financial Responsibilities
- Utah Code, Title XI, Natural Resources
- Utah Title XVI, Criminal Law and Procedure

Utah Environmental Regulations (Utah Administrative Code - UAC):

- 21 UAC Chapters 44-45 (Pesticides)
- 27 UAC Chapters 21-22 (Soil Conservation)
- 199 UAC Chapters 10, 12 (Utilities)
- 261 UAC Chapter 65 (Brownfield Redevelopment)
- 281 UAC Chapter 96 (Asbestos)
- 347 UAC Chapters 110,130,140 (Right-to-Know)
- 561 UAC Chapters 9, 14, 15 (Groundwater Hazard)
- 565 UAC Chapters 50,51 (Oil, Gas Minerals)
- 567 UAC Title I, Chapters 1-12 (General Rulemaking)
- 567UAC Title II, Chapters 20-31 (Air Quality)
- 567 UAC Title III, Chapters 38,39, 50-55 (Water Wells, Water Use)
- 567 UAC Title IV, Chapters 60-69 (Wastewater Treatment and Disposal)
- 567 UAC Title V, Chapters 70-76 (Flood Plain Development)
- 567 UAC Title VI, Chapters 81-83 (Certification of WWTP Operators, Well Contractors, Laboratories)
- 567 UAC Title VIII, Chapters 100-111, 117-119 (Solid Waste Management and Disposal)
- 567 UAC Title IX, Chapters 120-121 (Land Application of Sludge and Solid Waste)
- 567 UAC Title X, Chapters 131-137 (Spills and Hazardous Conditions)
- 567 UAC Title XI, Chapters 140,141,144,145,148,149 (Hazardous Waste)

- 605 UAC Chapters 100-104 (Energy Management Division)
- 661 UAC Chapter 5 (Fire Marshall)
- 761 UAC Chapter 520 (Transportation)
- 875 UAC Chapters (Labor Services, Right to Know)

Local Regulations and Site Permits

- Local Codes and Ordinances, Chapter 19.44, Sections 010-060
- Local Board of Adjustment Special Use Permit
- Utah DEQ General Storm Water Permit Authorization No.: IA-3440-3280
- Local Bureau of Fire Prevention Annual Permit No.: A-11244
- Local and Utah DEQ Air Permits: (see table)

OTHER ENVIRONMENTAL REQUIREMENTS

- Climate Friendly Parks initiative Goals
- USEPA National Environmental Performance Track
- NPS Director's Order #13
- Executive Order 13148

PERMIT	AGENCY	ISSUED	EXPIRES	COMMENTS
Title V Permit: 03-TV-006	Utah DEQ	01/14/2003	01/13/2008	Operating air permit-entire park
UDEQ NPDES Permit No. 7078101, USEPA NPDES No. IA0061972	Utah DEQ, USEPA	07/20/1999	07/19/2004	
UDEQ Stormwater Permit No. 6-78078101	Utah DEQ	01/28/1994	04/24/2004	
UDEQ Water Use Permit No. 3903-R2 (well permit)	Utah DEQ	11/05/1995	11/04/2005	

Revision / Date	Description:
1 / 01-11-02	Expanded "Utah Statutes" to include number and title description. Added "Local Regulations and Permits" section and rearranged items accordingly. Deleted "Customer Requirements" as there are no ISO 14001 or Performance Track customer requirements for ZION.
2 / 03-01-02	Changed "ZION Environmental Questionnaire" to "ZION Environmental Assessment Form" under "OTHER REQUIREMENTS".
3/ 06-21-02	Changed reference for ZION requirements under ZION ECS to web site address http://www.zionnps.gov/ehs/basicidx.htm .
4 / 07-05-02	Expanded Fictional City, Your State Ordinances by adding "Chapter 19.44, Sections 010-060" to identify the specific ordinances applicable to ZION.
5/ 02-12-03	Added " Title V Permit: 03-TV-006" to Utah DEQ Permits list.
6/ 09-10-03	Added section for NSR-XXX City
7/ 12-23-03	Redo of permit section to include table with expiration dates

Exhibit 13 (See Element 5.0):

Program to Incorporate Climate Change Issues into Staff Training Programs (from 2004 CFP Workshop)

Significant Environmental Aspect:	CO ₂ and other GHG Emissions	Area/Department(s):	Total Park
Objective:	Incorporate Climate Change Issues into Staff Training Programs	Process:	All
Target:	GHG emissions – 15% reduction based on 2003 usage by January 2006		
Category:	Control/Maintain <input type="checkbox"/>	Study or Investigate <input type="checkbox"/>	Improve <input checked="" type="checkbox"/>

Project: Incorporate Climate Change Issues into Staff Training Programs				
Partners: TBD				
Measure of Success: TBD				
Task/Action Items	Responsible Party	Project Start Date	Project Completion Date	Comments
Incorporate climate change into handbook for seasonal employees	Ron Terry			
Create personal incentives for staff to reduce greenhouse gas emissions	Supt			
Incorporate sessions on climate change into seasonal and new staff training	Division Chiefs			
Develop idling guidelines and post in fleet	Dpty Supt			
Develop cheat sheet for seasonal employees	Ron Terry			
Partner with third parties, e.g. concessionaires to encourage climate change awareness and training collaboration	Jacque Lavelle			
Contact Person: _____		Date Completed: _____		

Record of Revisions

Date	Description of Revision	Sections Affected

Exhibit 14 (See Element 5.0):

Training Needs Matrix

Date: January 12, 2005

Course	Employees Requiring Training	Source of Training	Duration (Hours)*	Frequency*
CERCLA TSCA 8 (e) Spill Reporting	Security, maintenance, and environmental personnel			
Integrated Emergency Response and Spill Prevention Control and Countermeasure Plan	Security, maintenance, and environmental personnel, Wastewater Treatment Operators			Once every year, each new maintenance staff
Storm Water Pollution Prevention Plan and BMPs	Environmental personnel, Wastewater Treatment Operators			Once every three years, each new maintenance staff
Materials Management Plan	Materials management and environmental personnel			Once every three years, each new maintenance staff
Wastewater Treatment and Disposal (including sampling and analysis training if appropriate)	Wastewater Treatment Operators			Once every three years, each new maintenance staff
Permit Monitoring and Record Keeping	Environmental personnel and other employees whose job relates to SEAs			Once, each new maintenance staff
Operation of Air Pollution Control System	Maintenance and environmental personnel			Once, each new maintenance staff
Hazardous Waste Management, Characterization, and Disposal Training	Environmental personnel and other employees whose job relates to SEAs			Annually
Climate Change Education	All new and seasonal employees			Initially

Course	Employees Requiring Training	Source of Training	Duration (Hours)*	Frequency*
EMS Lead Auditor Training	EMS Coordinator, Lead Internal Auditor			Initially
EMS Awareness Training	All employees and full-time on-site contractors			Initially and annually thereafter
EMS Document Training (see also "Applicable Procedures by Department")	Employees			Initially, new hires, and when document changes occur
EMS Implementation Training	Cross Functional Team and Environmental Management Representative			Initially
EMS Internal Auditor Training	EMS internal auditors			Initially and new auditors

*Note that Federal, state, local requirements and park best practices should be consulted in determining training needs, including the appropriate frequency and duration of training courses.

Exhibit 15 (See Element 6.0):

Climate Friendly Parks External and Internal Communications Strategy

Park Employee Outreach

Zion National Park currently has (TBD) full-time and averages (TBD) seasonal employees. Educating these employees on greenhouse gas emissions helps to make environmentally-minded improvements a community effort. Informed employees can also “spread the knowledge” by educating visitors.

Park Partners Outreach

Many national parks encourage environmental-consciousness among their partners. Parks can develop a Memorandum of Understanding with their partners to establish GHG reduction goals. Drawing on its knowledge of greenhouse gas emissions and mitigation, the park can assist each partner with the technical information needed to develop mitigation goals and strategies.

Visitors Outreach

Zion National Park receives 2,700,000 visitors in 2004 and averages around 2,450,000 each year over the last ten. Zion National Park can educate these visitors about GHG emissions and encourage them to reduce their emissions in, and outside, of the park. Zion National Park should develop a visitor Climate Friendly Parks education program to reach park visitors in at least 5 different ways. This will be through the development of Climate Friendly Parks interpretive programs, kiosks and displays at the visitor centers, through wayside displays, through literature in the lodges or other common areas and through demonstration projects.

Community Outreach

The park's proximity and ties to the nearby community places it in a good position to encourage GHG mitigation within Springdale, Rockville and beyond. Through outreach activities on your web site, the 5 message program, and the Do Your Part Program, your park can help reduce GHG emissions beyond its park boundaries.

Program to Incorporate Climate Change Issues into Outreach and Education Programs (from 2004 CFP Workshop)

Significant Environmental Aspect:	CO ₂ and other GHG Emissions	Area/Department(s):	Total Park
Objective:	Increase Climate Change Awareness	Process:	All
Target:	GHG emissions – 15% reduction based on 2003 usage by January 2006		
Category:	Control/Maintain <input type="checkbox"/>	Study or Investigate <input type="checkbox"/>	Improve <input checked="" type="checkbox"/>

Project: Community Outreach				
Partners: The Mesa; Zion Canyon visitors; EPA; Xanterra; ZCFI; ZNHA; Native Plant Society				
Measure of Success: Numbers of Attendees; Pledge Cards; Amount of Positive Feedback				
Task/Action Items	Responsible Party	Project Start Date	Project Completion Date	Comments
Plan Two-Day Community Event for Earth Day	Eileen & Julie			
Dedicate interns to education programs	Ron Terry			
Create an Internet Jr. Ranger Program	Ron Terry			
Assemble backpacks of education tools	Ron Terry			
Contact Person:			Date Completed:	

Project: Park Employee Outreach				
Partners: TBD				
Measure of Success: TBD				
Task/Action Items	Responsible Party	Project Start Date	Project Completion Date	Comments
Plan meeting with the park Superintendent	Vanessa and Jack			
Set Priorities and Host Workshops	Vanessa and Jack			
Develop Employee handbook for orientation	Vanessa and Jack			
Start a Climate Change Brown Bag Series	Vanessa and Jack			
Expand Health and Safety Fair with CC	Vanessa and Jack			
Expand Green Purchasing Program	Malinda and Jack			
Contact Person: _____		Date Completed: _____		

Project: Park Visitors Outreach				
Partners: Divisions; ZNHA; ZCFI; PTI; Schools				
Measure of Success: Implementation of plan by park and partners.				
Task/Action Items	Responsible Party	Project Start Date	Project Completion Date	Comments
Create a Zion 5 points Message Program	Jeff Bradybaugh, Ron T., Tom H., Denise Louie, Dave Eaker			
Create a Comprehensive Interpretive Plan	Ron Terry			
Develop a "Do Your Part" program for on line visitors	TBD			
Contact Person: _____		Date Completed: _____		

Project: Park Partners Outreach				
Partners: CESU; NPS (parks as a classroom); Canon Foundation; Toyota; Kodak; NPF				
Measure of Success: TBD				
Task/Action Items	Responsible Party	Project Start Date	Project Completion Date	Comments
Research potential funding sources	Ron Terry			
Research IPA Program	Ron Terry			
Contact Person: _____			Date Completed: _____	

Project: Expand Field Institute Classes				
Partners: None.				
Measure of Success: Numbers of attendees and positive evaluations.				
Task/Action Items	Responsible Party	Project Start Date	Project Completion Date	Comments
Host first class	Eileen			
Contact Person: _____			Date Completed: _____	

Record of Revisions

Date	Description of Revision	Sections Affected

Exhibit 16 (See Element 7.0):

Master Document List

ID	Title	Issue Date	Location	Authorized By
EMS Documents				
Policy				
	Environmental Commitment Statement	11/4/04	EMS manual; Admin Office	KLJ
Manuals & Plans				
	EMS Manual			
	Integrated Spill Plan			
Procedures & Related Forms				
P-001	Procedure for Identification of Legal and Other Environmental Requirements			
F-001.01	Legal and Other Environmental Requirements			
P-002	Procedure for Obtaining Agency Approval			
P-003	Procedure for Environmental Aspects, Objectives and Targets, and Programs			
F-003.01	Aspects and Significance Determination			
F-003.02	Objectives and Targets			
F-003.03	Program Form			
P-004	Procedure for Environmental Review for New Projects			
F-004.01	Project Environmental Checklist			
P-005	Procedure for Environmental Training and Awareness			
F-005.01	Training Needs Matrix			
P-006	Procedure for Communication with Stakeholders			
F-006.01	External Stakeholder Communication Record			
P-007	Procedure for Document Control			
F-007.01	Master Document List			
P-008	Procedure for Environmental Briefing of Contractors			
F-008.01	Environmental Briefing Packet and Contractor Method			
P-009	Procedure for Emergency Preparedness and Response			
F-009.01	Emergency Preparedness and Response Requirements Matrix			
P-010	Procedure for Monitoring and Measurement			
F-010.01	Environmental Measurement Indicators Log			
F-010.02	Calibration Log			
F-010.03	Compliance Tracking Log			
P-011	Procedure for Corrective and Preventive Action			
F-011.01	Corrective and Preventive Action Request			
F-011.02	Corrective and Preventive Action Tracking Log			

ID	Title	Issue Date	Location	Authorized By
P-012	Procedure for Environmental Records			
F-012.01	Index of Environmental Records			
P-013	Procedure for EMS and Regulatory Compliance Audits			
F-013.01	Internal EMS Audit Checklist			
F-013.02	Internal EMS Audit Schedule Form			
F-013.03	General Park Employee Checklist for EMS Internal Audits			
F-013.04	Questionnaire for General Park Employee in Spanish			
P-014	Procedure for Environmental Management System Management Review			
F-014.01	Management Review Record			
Work Instructions				
WI-001	Operational Control for Container Labeling			
WI-002	Operational Control for Hazardous Waste Satellite Accumulation Areas			
WI-002.01	Weekly Hazardous Waste Satellite Storage Inspection Checklist			
WI-003	Operational Control for Empty Chemical Container Handling			

Exhibit 17 (See Element 12.0):

EMS RECORDS MANAGEMENT TABLE

Title:	EMS RECORDS MANAGEMENT TABLE	Doc. No.:	EMF-4.5.3
Revision Date:	September 7, 2004	Approval by:	
Print Date:	June 8, 2005 (<u>Uncontrolled</u> document if printed)		Page 1 of 2

Record Type	Person Responsible	Location	File Method	Retention Minimum
ADMINISTRATION				
Records on costs - purchasing, operations, and disposal	Budget Officer	Admin. Office	Date order	3 years
Utility bills	Budget Officer	Admin. Office	Date order	3 years
Record of annual non-usable material quantity received	Purchasing Agent	Admin. Office	Date order	Life of park
Certificates of Insurance	Property Officer	Admin. Office	Date order	Life of park
Non-usable Material Analysis Sheets	Purchasing Agent	Admin. Office	Customer name	3 years
Non-usable Material Manifests - outgoing	Purchasing Agent	Admin. Office	Date order	3 years
HUMAN RESOURCES				
Training Needs Analysis and Training Records	Human Resource Manager	Human Resource Office	By type and date order	5 years
ENVIRONMENTAL				
Incident Reports	Maint. Foremen	Maint. Office	Date order	3 years
Complaint Reports	Maint. Admin Asst. .	Maint. Office	Date order	3 years
EMS communications with external parties	Dpty. Supt.	Supt. Office	Issue	3 years
Decision regarding external communication of significant environmental aspects	Dpty. Supt. .	Supt. Office	Date order	3 years
Major Source Determination Records	Chief Res. Mgt.	RM Office	Date order	Life of park
Correspondence regarding Air Notices	Chief, Res Mgt.	RM Office	Date order	5 years
Odor Control System Permit	Chief, Res. Mgt. Dept.	RM Office	Date order	5 years or per permit
Air Emission Reports	Chief, Res. Mgt. .	RM Office	Date order	5 years
Records on material disposal sites used	Archeologist	RM Office	Site name	Life of park
EMS Audit Reports	EMS Coordinator	EMS Coordinator Office	Date order	5 years

Record Type	Person Responsible	Location	File Method	Retention Minimum
EMS Corrective and Preventive Action Notices (Form 15-sa) and Database Logging Summary (Tracking Log format of Form 15-2b)	EMR	EMR Office – CAPAN database	Date order	2 years after completion of action
EMS Management Review Records (Form 18-2)	EMS Coordinator	EMS Office	Date Order	Life of park