



# Facility Management Workforce Development Guide

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# Facility Management Workforce Development Guide



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## TABLE OF CONTENTS

IMPLEMENTATION OF NATIONAL PARK SERVICE (NPS) FACILITY MANAGEMENT TRAINING AND COMPETENCIES	3
Message from Dale Wilking, Chief of Park Facility Management Division .....	3
What is the Purpose of the Workforce Development Guide? .....	4
Who is a Facility Manager? .....	4
Building the Facility Management Profession through Lifelong Learning .....	4
Introduction to Competency-Based Training and Education Opportunities .....	5
NPS Facility Manager Competencies .....	6
Selecting Learning Opportunities .....	7
Evaluation and Certification of Learning Opportunities .....	8
The Individual Development Plan (IDP) Process .....	9
<i>Goals of an IDP</i> .....	9
<i>Benefits of an IDP</i> .....	9
<i>The IDP Process Model</i> .....	9
<i>An Employee's Execution of the IDP Process</i> .....	10
Using the Workforce Development Guide .....	12
ADDITIONAL LEARNER RESOURCES .....	13
The Role of a Mentor for a New Facility Manager .....	14
NPS Facility Management Learning Contract .....	16
Self-Assessment .....	21
Individual Development Plan (IDP) .....	22
APPENDICES: Learning Resources for the NPS Facility Manager .....	23
Appendix A: Asset Management .....	25
Appendix B: Operations and Maintenance .....	31
Appendix C: Project Management .....	37
Appendix D: Resource Stewardship .....	41
Appendix E: Business Management .....	45
Appendix F: Supervision and Leadership .....	53
Appendix G: Training Provider and Higher Education Information .....	57
Appendix H: A Bibliography of Facility Management Textbooks .....	65



## **IMPLEMENTATION OF NATIONAL PARK SERVICE (NPS) FACILITY MANAGEMENT TRAINING AND COMPETENCIES**

### **Message from Dale Wilking, Chief of Park Facility Management Division**

Over the past 35 years, the National Park Service (NPS) facility management profession has evolved into a complex, mission-critical discipline. Being a facility manager in the 21<sup>st</sup> century requires insights, choices, and actions in a very competitive environment. Professional associations, certification programs, and university degree programs focused on facility management have developed in support of the profession.

Facility management in the Federal sector enjoys a much higher profile than ever before. From Executive Order to Human Capital Strategic Plans from Congressional watchers to the Office of Management and Budget, the attention is frequent and welcome. In-depth studies conducted by the National Academy of Science's Federal Facilities Council Report state:

“...facilities managers can no longer be regarded only as caretakers who bring unwelcome news about deteriorating facilities and the need for investments. As facilities management has evolved from tactical, building-oriented activities to a strategic, portfolio-based approach, the skills required by facilities management organizations have similarly evolved. ...[This evolution] requires not only the technical skills (e.g., engineering, architecture, mechanical, electrical, contracting) found in traditional facilities engineering organizations but also business acumen and communication skills.”

Both the Department of the Interior (DOI) and the NPS have targeted the facility management profession as ‘mission critical,’ due to the importance of maintaining the built environment and the high numbers of facility managers eligible to retire in the near future. To address these challenges, the NPS has coupled its internal expertise with universities and facility management organizations to publish a ‘snapshot’ of what an NPS facility manager represents. This ‘snapshot,’ presented in the form of competencies, forms a roadmap for development of our facility management workforce.

This document is a result of years of work and research. It presents the ‘snapshot’ in a fashion that allows a user to glean some insight on each of the profession’s focus areas and a glance at activities which can affect the growth required to achieve excellence.

It takes a serious, long-term commitment to achieve personal professional growth. My challenge to each of you is to take responsibility for your own career. Using the competencies, complete a self-assessment, create a professional development plan, and follow it through. Most importantly, keep an eye on your peers and subordinates. Find the best, bring them under your wing, and bring them along for the ride.

Most importantly, enjoy your time with the NPS. It is truly an honorable way to serve your country while preserving America’s treasures.

## **What is the Purpose of the Workforce Development Guide?**

The workforce development guide outlines a self-initiated improvement program in which individuals have control over their own professional development. The purpose of this guide is to accomplish the following:

- To advance the profession of facility management through education and training, focusing on continual, self-initiated learning that is coupled with NPS facility manager competencies
- To help users identify and access training and education resources that will assist them in meeting their professional development goals
- To develop an individual development plan (IDP) that will identify the level of professional growth required or desired
- To guide individuals interested in pursuing a career in facility management toward learning opportunities needed to transition into the profession

DOCUMENT NAVIGATION NOTE: The Adobe Acrobat version of the Workforce Development Guide contains useful links for navigation. For instance, clicking on any of the individual competencies in the table on page six will automatically jump you to the competency's location and sample courses in the appendices. To navigate back to the original page, simply press the green back arrow at the bottom of the Adobe Acrobat window.

## **Who is a Facility Manager?**

Across the Service, the facility manager may be the senior trade person, a landscape architect or engineer, a park ranger, the Chief of Operations, an Administrative Officer, or an individual classified in the 1600 series (Equipment, Facilities, and Services Group).

Despite these varying roles, those serving in the role of facility manager oversee and coordinate:

- The planning, prioritizing, and organization of facilities-related efforts to reinforce NPS activities in support of the NPS and park unit mission
- The application of sound business practices in the planning, acquisition, operation, maintenance, and disposal of capital investments
- The development of project proposals and their incorporation into the long-term planning process to better align them with strategic and mission needs
- The continued personal development and professional competence of subordinates
- The assignment of tasks, delegation responsibilities, and evaluation of subordinates
- The creation and monitoring of subordinates' professional development plans

## **Building the Facility Management Profession through Lifelong Learning**

Competent, well-prepared facility managers are absolutely essential to the continued successful management of our parks' assets and equipment. The facility manager is a leader; he or she is tasked with identifying skills needed in the workforce and assuring that his or her employees are trained to execute the facility management function with excellence.

Training and education are also useful to those in the maintenance field as they apply to specific job duties beginning with the WG-2 level employee. Training and education opportunities are useful for those seeking to be promoted to the level of facility manager or for

those currently working in other NPS divisions who would like to move into the facility management profession.

### **Introduction to Competency-Based Training and Education Opportunities**

Competencies outline the knowledge, skills, and abilities in a career field that are required for employees to perform duties at a defined level of proficiency. Competency-based training provides employees with outcome-based, learner-driven tools that help to improve their overall job performance. By basing training and development courses on well-defined, established competencies with clear performance measures, employees can identify specific skills and abilities they need to develop in order to excel in their profession. Competency-based training also increases accountability by providing a standard of measurement against which the learner can be evaluated.

The facility manager competencies describe a clear level of expectation for full-performance facility managers and represent a goal that individuals can strive to meet over the course of their careers. While entry-level facility managers may not achieve every competency by the end of their first year on the job, they can use the competencies as building blocks to guide their professional development over the long-term. Whether a facility manager is currently operating at an entry, intermediate, or full performance level, he or she will benefit from the competencies and the associated learning events identified in this guide.

The facility manager competencies also provide a foundation on which the NPS can build a development program that is flexible, broad-based, and effective. Curriculum and courses from the DOI, the NPS, universities, trade schools, and a variety of other organizations can be coupled with the competencies to identify learning opportunities. The competencies provide a way for supervisors, employees, the NPS itself to ensure that the facility management workforce in the NPS is meeting the needs of the agency.

This guide contains basic information about the NPS facility manager competencies, including definitions of the parent and child competencies. For more detailed information regarding the competencies, including performance indicators associated with the mastery of each competency and information about how the competencies were developed, please visit the following site: The Learning Place at [www.nps.gov/training](http://www.nps.gov/training). Select the Competencies tab and scroll down to view the competencies within the Maintenance Career Field.

### NPS Facility Manager Competencies

The following table displays the six facility manager competencies and the 24 associated child competencies identified for a full-performance facility manager. Each competency contains tasks, conditions for performance of these tasks, and criteria for their performance.

To find a complete description of the conditions and criteria associated with each competency, go to the Park Facility Management Division (PFMD) website at: <http://inside.nps.gov/waso/waso.cfm?prg=41&lv=2>. On the left-hand side of the screen, select the Facility Manager Development link for important resources, such as the facility manager competencies and this guide.

<b>I. Asset Management</b>	<b>II. Operations and Maintenance</b>	<b>III. Project Management</b>	<b>IV. Resource Stewardship</b>	<b>V. Business Management</b>	<b>VI. Supervision and Leadership</b>
A. Planning and Procedures	A. Service Scheduling, Performance, and Tracking	A. Project Management	A. Cultural Resources	A. Plan and Organize the Facility Function	A. Leading Change
B. Property and Structure Ownership Management	B. Facility Management Software	B. Programming and Design	B. Natural Resources	B. Budget and Finance	B. Leading People
C. Life Cycle Management	C. Health, Safety, and Environmental Factors	C. Construction and Relocations	C. Environmental Leadership	C. Assessment and Innovation	C. Results Driven
D. Inventory and Condition Assessment	D. Emergency Preparedness			D. Human Resource Management	D. Business Acumen
				E. Technology	E. Building Coalitions and Communications

**Figure 1: NPS Facility Manager Competencies**

## Selecting Learning Opportunities

The NPS is a learning organization. Learning can occur through activities and experiences on the job site. It can also occur in the classroom and through alternate delivery systems, such as computer-based training, detail assignments, and other training methods.

Self-Study Learning Opportunities: Informal opportunities to guide one's own learning in a self-directed, independent project format. Examples could include independent readings, online research into facility management trends, or critiques of facility management textbooks.

[Click here](#) to access a list of current facility management textbooks and resources.

Career Development Experiences: Activities that provide participants with ways to learn new techniques or perform different types of work. When considering a career development experience, the learner and supervisor should develop a learning contract relating to the experience, including specific objectives the learner wishes to accomplish. The learner should also identify deliverables, take an assessment, or develop other methods for demonstrating that competency-related content has been learned through the experience and if it is eligible for credit.

To fully document your learning objectives and outcomes from these development experiences, the learner should also create a more detailed Learning Contract. To develop a Learning Contract, [click here](#).

Career development activities include:

- Job Rotations: Assignments associated with different organizations or functions.
- Details: Segments of work where the learner spends time away from his or her designated position, performing the duties of a different position.
- Mentoring: A formal program that engages the learner with a mentor and the supervisor to fulfill specific learning objectives. Mentoring facilitates the transfer of knowledge to develop learners into future leaders through guided experiences. Many skills learned by facility managers are a result of experience in a wide variety of situations. This experience should be shared with others. A mentoring program can consist of face-to-face encounters or weekly meetings via teleconferencing.

For more information on mentoring, [click here](#).

- Special Projects: A formal opportunity to direct or participate in activities or task forces not part of customary, everyday responsibilities.
- Shadowing Assignments: A means of providing exposure to leadership excellence and increasing the visibility of the learner. Shadowing gives the learner an opportunity to view decision-making styles and problem-solving techniques in a real-life setting. Participants will gain experience in communicating with executives in one-on-one situations.

Alternate Delivery Systems: Training provided via self-study courses, technology-based media, TEL training, etc.

Classroom Training: Enrollment in appropriate NPS, DOI, or other Federal sector training, or courses offered by non-Government vendors, professional organizations, and universities. Participants are provided a structured learning experience in a classroom setting away from the job. Only conferences that offer specific competencies are included in this category.

For a list of sample courses, e-courses, and other learning opportunities for each competency, [click here](#).

## **Evaluation and Certification of Learning Opportunities**

### NPS-Provided Learning Opportunities

To receive credit for an approved course or learning event on the official NPS transcript, the learner should do the following:

1. Find the event in My Learning Manager (MLM).
2. Enroll in the course, complete any coursework, and pass an assessment or other method of ensuring concept mastery.

Once the assessment is passed, the learning event is added to the learner's official NPS transcript. Employees should notify their supervisors as they complete the learning events identified in the Individual Development Plan (IDP). They should also file all the training records according to specific office's requirements (training certificates, etc.).

### Non-NPS Learning Opportunities

Some skill needs or learning goals may not be met through NPS-provided learning opportunities. To meet these needs, an employee may need to explore other options. If an individual identifies a learning opportunity outside of the MLM catalog, such as a course or certificate program at a local college, special detail, self-study learning opportunity, or mentor program, then the candidate can petition the workforce development education manager for validation of the learning event and its inclusion in a learner's official NPS transcript.

Recognize that many of your learning experiences may not be eligible to be included in your official NPS transcript, but may still be of great value to your career.

### The Individual Development Plan (IDP) Process

Individuals who want to advance in the field of facility management or acquire needed skills should follow a series of steps to identify developmental opportunities that will enhance their performance most effectively. Employees should discuss career development activities with their supervisors to identify those that have the greatest potential for individual development. The IDP is a dynamic planning document that identifies professional development needs, career objectives, and ways of meeting these needs. The IDP includes the following:

- A detailed list of learning opportunities that can be accomplished during the IDP period (usually a fiscal year)
- A detailed list of activities in which the learner builds skills in targeted competency areas
- Target dates for completion of each
- Established mechanisms for continuous feedback from supervisors, peers, and employees

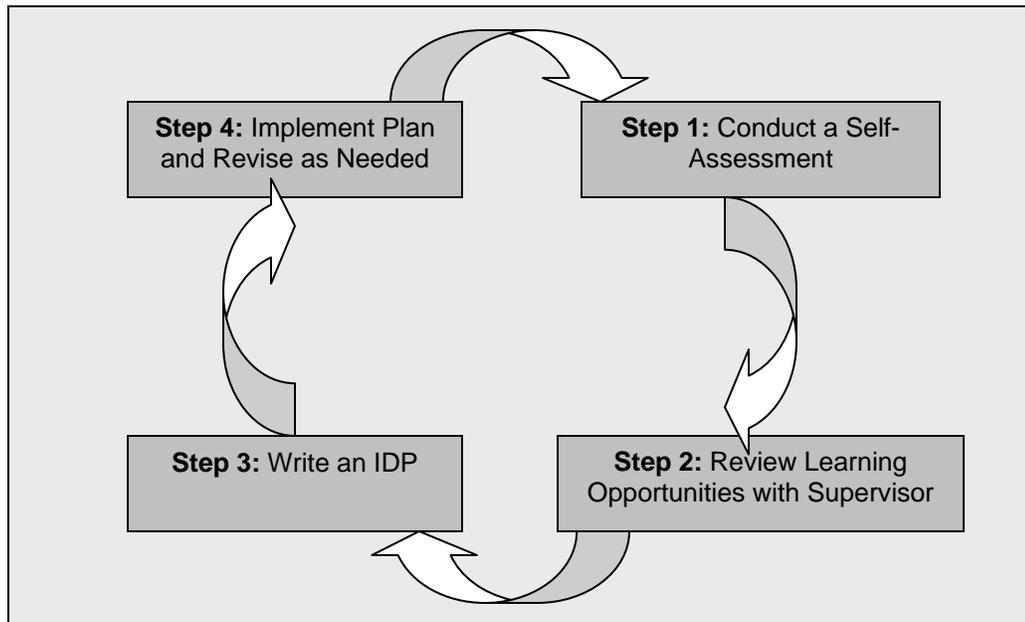
#### Goals of an IDP

- Long-term career options and the necessary tools to meet these options.
- Short-term needs for improving current performance.

#### Benefits of an IDP

- Employees will have a process that will assist them in identifying long-term goals.
- Identification of short-term goals will give the employee and supervisor a clear set of expectations.
- The IDP serves as a communication tool between individuals and their supervisors.

#### The IDP Process Model



**Figure 2: The Main Steps of the IDP Process**

## An Employee's Execution of the IDP Process

### *Step 1: Conduct a Self-Assessment and List Competency Focus Areas*

The information included here should consist of the following:

- A realistic assessment of your current abilities, using the NPS Facility Manager Competencies document as a guide
- When considering your level of competency, use the following qualifications:
  - Formal Educational Background
  - Informal (Self-Development Activity) Educational Experiences
  - Job Experience
  - Formal Classroom Training
  - On-the-Job Training Assignments

### *Step 2: Review Learning Opportunities with Supervisor*

In order to complete this task you should do the following:

- Identify career opportunities.
- Identify developmental needs by comparing your current skills and strengths with those that are needed for facility management.
- Prioritize developmental needs and discuss with your supervisor how these needs can be addressed.

### *Step 3: Write an IDP*

The information included here should consist of the following:

- Identification of Short-Range Goals
  - What are my strengths and how can I build on them effectively?
  - What competencies do I want to target in the next year?
  - What is the priority of need of addressing those competencies in the next year?
  - How can I best meet the needs and priorities of my park/unit in the next year?
- Identification of Long-Range Goals
  - Promotion to a higher GS level
  - Transfer to a larger park/unit within the NPS
  - Completion of a comprehensive facility management training program
  - Define the approach for meeting targeted skills needed (an example is provided below).

For example, once the employee identifies specific facility manager competencies as training needs for the next year, a learning plan can be developed (see Figure 3).

**INDIVIDUAL DEVELOPMENT PLAN**

EMPLOYEE NAME:	
PRESENT TITLE, SERIES, GRADE:	

COMPETENCY GOAL	ACTIVITY	TARGET COMPLETION DATE	NUMBER OF HOURS OF T&D	COMMENTS	COMPLETED DATE	COST
Life Cycle Management	Asset Management: Foundations of Asset Management, NPS E-Course	10/30/06		The ability to effectively manage NPS assets using the AMP		\$0.00
Inventory and Condition Assessment	Facility Condition Assessment Survey, NPS Classroom Course	11/15/06		The ability to effectively plan for and conduct annual condition assessments		\$0.00
Project Management	Self-Study: Independent Reading Assignment	4/15/07		Increased knowledge in planning, managing, and evaluating a project		\$0.00
Property and Structure Ownership Management	Mentorship to revise and develop a new property and structure ownership plan for a park unit	7/05/07		The ability to develop and implement a property and structure ownership plan		\$0.00

\_\_\_\_\_  
EMPLOYEE'S SIGNATURE

\_\_\_\_\_  
DATE

\_\_\_\_\_  
SUPERVISOR'S SIGNATURE

\_\_\_\_\_  
DATE

\_\_\_\_\_  
SECOND LEVEL SUPERVISOR

\_\_\_\_\_  
DATE

\_\_\_\_\_  
TRAINING OFFICER

\_\_\_\_\_  
DATE

**Figure 3: A Sample IDP**

### *Step 4: Implement Your Plan and Revise as Needed*

- Put your plan into action.
- Revise the plan as needed, recognizing that it may be modified as goals and circumstances change.
- Review the plan with your supervisor regularly.
- Provide any necessary documentation or follow-up to your supervisor as learning opportunities are completed.

### **Using the Workforce Development Guide**

Once you have completed your self-assessment and developed an IDP, the following sections of the guide will help you identify potential learning opportunities. This is not an exhaustive list, but rather a guide intended to help you identify ways to meet your professional development goals.

In addition to the facility manager competencies included in the appendices, you may wish to examine their tasks, conditions, and criteria at the PFMD website (<http://inside.nps.gov/waso/waso.cfm?prg=41&lv=2>). To view a downloadable version of the facility manager competencies document, select the Facility Manager Development link on the left-hand side of the screen. This page will lead you to many important resources, such as the facility manager competencies and this guide.

When evaluating possible learning opportunities to meet your identified skill or competency needs, review the elements of the learning activity and compare that to the competency descriptions. This will help you identify whether the learning opportunity addresses specific performance criteria described in the NPS Facility Manager Competencies. You will also find a sample list of vendors and organizations that provide facility management-related coursework and other learning events.

Additional Learner Resources

**The Role of a Mentor for a New Facility Manager**  
**NPS Facility Management Learning Contract**  
**Self-Assessment**  
**Individual Development Plan (IDP)**

## The Role of a Mentor for a New Facility Manager

Mentoring can serve as an extension of professional development programs and coursework to improve the field of facility management in the NPS. A one-on-one mentoring program would place a new or aspiring facility manager under the tutelage of an experienced facility manager. This allows for the hands-on understanding of the roles, responsibilities, and accountability issues of a facility manager.

The mentoring process links a new facility manager with a more experienced supervisor or manager in order to help facilitate career management, professional growth and IDP development. A mentor is someone generally not in the new facility manager's management chain of command who is in a position to help with job and career issues, and who is committed to doing so.

In his book, *Managers as Mentors*, Chip R. Bell describes a mentor "as someone who helps someone else learn something the learner would otherwise have learned less well, more slowly, or not at all." A mentor's understanding of the organization's structure and culture assists the new facility manager in defining realistic job competencies and career goals, as well as strategies and options which may extend beyond the current job or career field.

The mentor is a role model and sounding board who provides confidential guidance on ways to gain acceptance and recognition in the larger organization. Mentoring is a constantly evolving process and requires the mentor and new facility manager to work together as partners to define appropriate career satisfaction goals, and to provide each other with sufficient feedback in order to achieve those goals.

A mentor is someone other than one's supervisor (or anyone else in the chain of command) who is in a position to help with job and career issues, and is committed to doing so. Although new facility managers are not required to identify a mentor, they are urged to do so.

What difference do mentors make in one's development? Mentored facility managers benefit from the following:

- The connection formed with an interested person who monitors development, provides encouragement, and assists in the transfer of learning to the job
- Having goals defined and clarified so that they are both realistic and challenging, or action steps toward a goal they already identified
- Receiving advice on the Supervision, Management and Leadership competencies and how to achieve proficiency in those competencies
- Gaining perspective of the mentor on politics as well as priorities and programs
- Receiving feedback about self-presentation (or other issues) that supervisors often don't give, generally because they have to work with the person on a daily basis
- Having access to an objective and credible source of information about how the system works and how to work the system
- Improved job performance, both because they can discuss any problem areas with the mentor, and strategize about how to work them out with the supervisor, and because they are more highly motivated.

### How to Identify a Mentor

To identify a mentor, do the following:

- Request a meeting with a potential mentor. Let the person know you want to discuss career issues. Request a given amount of time. Think about who you turn to now for advice on how to be an effective facility manager. You may already have a mentor whom you don't call by that formal name, but who is actually serving the same functions. If you are typical, then there are probably several different people from whom you receive different kinds of support, feedback and advice. Does any one of them stand out as someone with whom you would like more time or be more involved? If so, ask. Most people are pleased when someone asks them to be a mentor.
- Reflect on what kind of help you need. Are you looking mostly for information about how the system works, about how to develop your facility management competencies, or about how to handle a particularly challenging situation? Or do you want help in identifying your strengths and skills, and in setting goals based on those?
- Identify some people who might be able to help. Whether or not a particular individual proves to be a full-fledged mentor, they may be able to answer particular questions or spend a couple of hours with you discussing a dilemma you are facing. Ask the people you already talk with regularly who they would suggest, and watch to see who in your organization has the qualities and knowledge to provide the kind of assistance you have identified. Recently retired facility managers may also make excellent mentors.

## NPS Facility Management Learning Contract

A developmental activity, such as a job rotation, detail, mentorship, special project, or a shadowing assignment, requires motivation and self-directed learning strategies on the part of the learner—that's you!

To help you become an active participant in your professional development, you should first complete a Learning Contract. The Learning Contract will help you to identify what skills you want to learn or improve upon. It is designed to link your individual learning objectives with your job's requirements, including facility management competencies requirements.

The Learning Contract is an opportunity for you to

- Individualize a developmental activity to meet your particular learning needs
- Focus on an applied project related to your workplace or your learning needs, and
- Discuss your individual development goals with your supervisor or mentor.

*The Learning Contract was adapted from a Learning Contract developed for the M. S. degree in Adult and Continuing Education, Indiana University.*

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### LEARNING CONTRACT

The Learning Contract is a deliberate, measurable statement of:

- The objective(s) you want to address
- How you will structure your learning
- How you will show your accomplishment

Define as many Learning Outcomes as you need to make this an effective, valuable, and successful learning tool. Learning Outcomes may include references to facility manager competencies or they may address specific tasks and conditions within those competencies. The complete list of facility manager competencies may be found at the following website: <http://www.nps.gov/training/cfmatrices/documents/fmcompsrpt.pdf>.

Complete this contract and submit it to your supervisor or mentor.



## NPS FACILITY MANAGEMENT LEARNING CONTRACT

### EMPLOYEE INFORMATION

Name:	
Name of Supervisor or Mentor:	
Date Submitted:	
Proposed Completion Date**:	

### PART ONE

What are the competencies you need or want to develop during this learning activity in order to become more knowledgeable about the field of facility management or more successful in your position?

Learning Outcome # 1: I would like to learn or achieve competence in the following area or topic:

a) Learning Strategies & Activities: This is how I will go about achieving this objective.	
b) Evidence of Accomplishment: This is how I will know the objective has been achieved.	
c) Criteria and Means of Evaluating Accomplishments: This is how I will demonstrate or prove that I have achieved my goal.	

Learning Outcome # 2: I would like to learn or achieve competence in the following area or topic:

a) Learning Strategies & Resources: This is how I will go about achieving this objective (Activities):	
b) Evidence of Accomplishment: This is how I will know the objective has been achieved:	
c) Criteria and Means of Validating or Assessing Evidence of Accomplishment: This is how I will demonstrate or prove that I have achieved it:	

Description of Learning Outcome # 3: I would like to learn or achieve competence in the following area or topic:

a) Learning Strategies & Resources: This is how I will go about achieving this objective (Activities):	
b) Evidence of Accomplishment: This is how I will know the objective has been achieved:	
c) Criteria and Means of Validating or Assessing Evidence of Accomplishment: This is how I will demonstrate or prove that I have achieved it:	

**PART TWO: To be completed after the learning activity**

A brief description of the results of my developmental activities and how it supports my Learning Outcomes:

**PART THREE: SELF-EVALUATION OF LEARNING EXPERIENCE**

Mark your response and add comments as appropriate.

<b>Learning Levels:</b>	High = Learned a lot of new things and synthesized it with prior knowledge
	Medium = Learned some new things or synthesized prior knowledge together
	Low = Did not learn anything new, simply reiterated what you already knew

1. Overall, I participated effectively and appropriately in initiating and completing this learning project.

Yes\_\_\_\_\_ No\_\_\_\_\_

My learning level: High\_\_\_\_\_ Medium\_\_\_\_\_ Low\_\_\_\_\_

Reflect and comment.

2. My learning level in working on the specified outcome-based learning objectives was:

High\_\_\_\_\_ Medium\_\_\_\_\_ Low\_\_\_\_\_

Reflect and comment.

Student Signature: \_\_\_\_\_

**PART FOUR: SUPERVISOR / MENTOR EVALUATION OF LEARNING EXPERIENCE**

LEVEL OF COMPETENCY

I. Knows and comprehends:

II. Can apply:

III. Can analyze, synthesize, and evaluate:

IV. Can apply analysis, synthesis, and evaluation:

Other comments:

Signature of Evaluator: \_\_\_\_\_

## Self-Assessment

Assess your skills in the facility manager competency areas and place a check mark in the box below your skill level. Use this information to select learning goals and opportunities in your individual development plan.

### I. Asset Management

	No Skill	Conceptual	Experienced	Expert	Guru
A. Planning and Procedures					
B. Property and Structure Ownership					
C. Life Cycle Management					
D. Inventory and Condition Assessment					

### II. Operations and Maintenance

	No Skill	Conceptual	Experienced	Expert	Guru
A. Service Scheduling, Performance, and Tracking					
B. Facility Management Software					
C. Health, Safety, and Environmental Factors					
D. Emergency Preparedness					

### III. Project Management

	No Skill	Conceptual	Experienced	Expert	Guru
A. Project Management					
B. Programming and Design					
C. Construction and Relocations					

### IV. Resource Stewardship

	No Skill	Conceptual	Experienced	Expert	Guru
A. Cultural Resources					
B. Natural Resources					
C. Environmental Stewardship					

### V. Business Management

	No Skill	Conceptual	Experienced	Expert	Guru
A. Plan and Organize the Facility Function					
B. Budget and Finance					
C. Assessment and Innovation					
D. Human Resource Management					
E. Technology					

### VI. Supervision and Leadership

	No Skill	Conceptual	Experienced	Expert	Guru
A. Leading Change					
B. Leading People					
C. Results Driven					
D. Business Acumen					
E. Building Coalitions and Communications					

## Individual Development Plan (IDP)

EMPLOYEE NAME:	
PRESENT TITLE, SERIES, GRADE:	

COMPETENCY GOAL	ACTIVITY	TARGET COMPLETION DATE	NUMBER OF HOURS OF T&D	COMMENTS	COMPLETED DATE	COST

\_\_\_\_\_  
EMPLOYEE'S SIGNATURE      DATE

\_\_\_\_\_  
SUPERVISOR'S SIGNATURE      DATE

\_\_\_\_\_  
SECOND LEVEL SUPERVISOR      DATE

\_\_\_\_\_  
TRAINING OFFICER      DATE

## **Appendices: Learning Resources for the NPS Facility Manager**

Introduction to the Appendices

## Introduction to the Appendices

Once you have completed a self-assessment and Individual Development Plan (IDP) and reviewed it with your supervisor or mentor, you will want to find courses or training providers that will help you to address the skills and abilities you want to develop. Finding appropriate coursework is the next step in your individual professional development. The following appendices provide developmental activities and sample courses, training providers, and a list of facility manager textbooks that may help guide you in addressing the facility manager competencies you have identified as needs in your self-assessment and IDP.

Since the sample courses are organized by the facility manager competencies, you will need to reference the NPS Facility Manager Competencies document. This organization allows you to easily review a list of sample courses that may address the different competencies. The Facility Manager Competencies can be viewed and downloaded from the Learning Place website at: [http://data2int.itc.nps.gov/Training/competent2.cfm?Career\\_code=MNT](http://data2int.itc.nps.gov/Training/competent2.cfm?Career_code=MNT). The competencies are also located at the PFMD website (<http://inside.nps.gov/waso/waso.cfm?prg=41&lv=2>). To view a downloadable version of the facility manager competencies document, select the Facility Manager Development link on the left-hand side of the screen. This page will lead you to many important resources, such as the facility manager competencies and this guide.

Please note that the appendices provide sample courses and training providers; these have *not* been extensively reviewed or validated by the NPS, nor are the appendices inclusive of every learning opportunity that may be of value to you. Instead, the appendices were designed to serve as a reference and starting point from which to begin seeking out learning opportunities.

## **Appendix A: Asset Management**

Appendix A-1: Developmental Activities

Appendix A-2: Sample Courses

## APPENDIX A-1

### ASSET MANAGEMENT DEVELOPMENTAL ACTIVITIES

ASSET MANAGEMENT CHILD COMPETENCIES	POSSIBLE DEVELOPMENTAL ACTIVITIES
<p><b>Planning and Procedures</b></p>	<ul style="list-style-type: none"> <li>▪ Read your park’s General Management Plan and prepare a report for your supervisor to present to a senior park management that compares the existing asset inventory to the inventory required for implementation.</li> <li>▪ Read your park’s business plan and reflect on the role of the facility function. Prepare an analytical report for your supervisor to present to senior park management on your findings.</li> <li>▪ Review all business and strategic plans that affect your park unit, and list five main impacts the plans have on your unit’s operations.</li> <li>▪ Read your park’s asset management plan and prepare a report for your supervisor highlighting any disconnects between it and other park plans.</li> <li>▪ Visit the Americans with Disabilities Act website (<a href="http://www.usdoj.gov/crt/ada/adahom1.htm">http://www.usdoj.gov/crt/ada/adahom1.htm</a>) and review accessibility requirements. List five ways accessibility standards are met at one of your facilities, and list five ways standards are not being met or could be improved.</li> </ul>
<p><b>Property and Structure Ownership</b></p>	<ul style="list-style-type: none"> <li>▪ Pull an FMSS report on the park’s asset inventory. Log on to the FMSS and complete the specification template for the ten assets with the highest API, paying particular attention to asset occupancy and asset use.</li> <li>▪ Develop a plan for completing specification templates for the remaining park assets and submit it to your supervisor. Consider including interns, student aids, and term positions in your plan. Volunteer to coordinate implementation of the plan and deliver documentation on the completed project.</li> <li>▪ Schedule a meeting with your park’s administrative officer, and create a list of assets leased by the park. Develop a report which links each asset to occupancy and usage data based on FMSS’ specification template.</li> <li>▪ Schedule an interview (or arrange a detail) with your park’s servicing lands office to learn about the land acquisition process. Develop a report for your supervisor which details the impacts that planned acquisitions will have on facility management’s function.</li> <li>▪ Describe ten current park unit activities and outline where they fit into the asset management process.</li> </ul>

ASSET MANAGEMENT CHILD COMPETENCIES	POSSIBLE DEVELOPMENTAL ACTIVITIES
<b>Life Cycle Management</b>	<ul style="list-style-type: none"> <li>▪ Select an asset feature slated for replacement (such as an HVAC unit, roof, or lighting system); apply life-cycle cost principles to the selection process; oversee its installation; and develop a report comparing its performance to the design analysis.</li> <li>▪ Complete a life-cycle cost analysis for a more complex asset at your park, such as a visitor center.</li> <li>▪ Review the preventive maintenance plans assigned to a single asset in your park/unit. Note any areas that need preventive maintenance plans developed.</li> <li>▪ Volunteer to develop a life-cycle cost analysis for your park's next project or to work on a design team (DSC or A&amp;E) developing a life-cycle cost analysis.</li> <li>▪ Negotiate a detail with your park GSA's servicing fleet manager or a park with a park-owned fleet, and write a report outlining lessons learned and principles you will apply when executing fleet management duties.</li> <li>▪ Attend a GSA's FedFleet conference workshop, and write a report outlining lessons learned and principles you will apply when executing fleet management duties.</li> </ul>
<b>Inventory and Condition Assessment</b>	<ul style="list-style-type: none"> <li>▪ Actively participate in your park's next Comprehensive Condition Assessment. Document approaches the park applies and add these approaches to your skill portfolio.</li> <li>▪ Complete the work order process for deficiencies identified in the condition assessment.</li> <li>▪ Examine asset conditions documented in the park's FMSS data. Generate reports and write a briefing paper for presentation to upper management.</li> <li>▪ Develop a program that will track an asset's condition over time correlating work effort (and cost)—or lack thereof—to asset condition. Present findings to upper management along with proposals for implementation park-wide.</li> </ul>

## APPENDIX A-2

### ASSET MANAGEMENT SAMPLE COURSES

Competency	Course / Developmental Activity (in Alphabetical Order)	Vendor	Supervisor Approval?	Cost / Additional Information
<b>Planning and Procedures</b>	Advanced Trails Program Maintenance and Management, MNT4304	NPS	Yes	Classroom Course / Wkshop
	Asset Management: Foundations of Asset Management, MNT1007	NPS	Yes	Web-Based Course
	Basic Trails Program Maintenance Management, MNT4104	NPS	Yes	Classroom Course / Wkshop
	Intermediate Trails Program Maintenance and Management, MNT4204	NPS	Yes	Classroom Course / Wkshop
	Finance Competency Course	IFMA		<b>Cost: Members \$495; Nonmembers \$695</b> Classroom Course / Wkshop
	Operations and Maintenance: Work Orders, MNT1012	NPS	Yes	Web-Based Course
	<b>Property and Structure Ownership Management</b>	Basics of Property Management	DOIU	
Choosing by Advantages, PDC2005		NPS	Yes	Classroom Course / Wkshop
Managing Park Assets: API, MNT1004		NPS	Yes	Web-Based Course
Managing Park Assets: CRV, MNT2002		NPS	No	Web-Based Course
The Real Estate Competency Course		IFMA		<b>Cost: Members \$495; Nonmembers \$695</b> Classroom Course / Wkshop
Tenant Retention and Satisfaction eSeminar		BOMA		Web-Based Course
<b>Life Cycle Management</b>		Asset Management: Foundations of Asset Management, MNT1007	NPS	Yes
	Asset Management Process / Facility Management Software System, MNT1001	NPS	Yes	Classroom Course / Wkshop
	Choosing by Advantages, PDC2005	NPS	Yes	Classroom Course / Wkshop

Facility Management Workforce Development Guide

Competency	Course / Developmental Activity (in Alphabetical Order)	Vendor	Supervisor Approval?	Cost / Additional Information
	Finance Competency Course	IFMA		<b>Cost: Members \$495; Nonmembers \$695</b> Classroom Course / Wkshop
	Foundations of Life Cycle Asset Management, MNT2001	NPS	Yes	Web-Based Course
	Managing Park Assets: API, MNT1004	NPS	Yes	Web-Based Course
	Managing Park Assets: CRV, MNT2002	NPS	No	Web-Based Course
	Operations and Maintenance: Establishing a Preventive Maintenance Program, MNT2004	NPS	Yes	Web-Based Course
	Operations and Maintenance: Plans and Preventive Maintenance, MNT1011	NPS	Yes	Web-Based Course
	Operations and Maintenance: Overview and Introduction to the FMSS, MNT1008	NPS	Yes	Web-Based Course
<b>Inventory and Condition Assessment</b>	Asset Management: Asset Inventory, MNT1009	NPS	Yes	Web-Based Course
	Conducting Effective Surveys	GMU		Classroom Course / Wkshop
	Facility Condition Assessment Survey, MNT1002	NPS	Yes	Classroom Course / Wkshop
	Operations and Maintenance: Item Inventory and Resources, MNT1010	NPS	Yes	Web-Based Course



## **Appendix B: Operations and Maintenance**

Appendix B-1: Developmental Activities  
Appendix B-2: Sample Courses

## APPENDIX B-1

### OPERATIONS AND MAINTENANCE DEVELOPMENTAL ACTIVITIES

OPERATIONS AND MAINTENANCE CHILD COMPETENCIES	POSSIBLE DEVELOPMENTAL ACTIVITIES
<b>Service Scheduling, Performance, and Tracking</b>	<ul style="list-style-type: none"> <li>▪ Develop two lists of the operations and maintenance of 'services' your park's facility management function delivers to visitors, program areas, park staff, concessionaires, partners, etc.</li> <li>▪ Examine how these activities are planned and reported to the FMSS. Document each omission, and develop a plan for inclusion.</li> <li>▪ Generate and analyze FMSS data on one of the services planned and tracked. Determine the accuracy of the data, develop a plan for filling omissions, and prepare an executive summary of the costs.</li> </ul>
<b>Facility Management Software</b>	<ul style="list-style-type: none"> <li>▪ Generate a report on the condition of one asset and its associated work orders. Conduct a condition assessment of this asset with these facts in hand, and identify/document discrepancies. Draft work orders to fill the gap, and present them to your supervisor.</li> <li>▪ Select one asset, and examine work orders associated with it. Sort them by operational or maintenance work orders, and develop a preventive maintenance plan.</li> <li>▪ Develop a plan for long term monitoring of this asset that will capture condition data over time. Describe how to correlate cost savings (from deferred work) to increased repair costs.</li> <li>▪ Examine FMSS data and compare the resource costs to the facility function's operating budget. Identify where discrepancies lie and propose solutions.</li> <li>▪ Examine FMSS data, and determine what portion of the facility function's effort goes to operations vs. maintenance. Draft a report for senior management and present to your supervisor.</li> </ul>
<b>Health, Safety, and Environmental Factors</b>	<ul style="list-style-type: none"> <li>▪ Review your park's Environmental Management Plan. Visit shop and storage areas identified in it and audit their compliance with the plan. Develop FMSS work orders for any deficiencies found.</li> <li>▪ Meet with your park's collateral duty safety officer (CDSO), and obtain copies of the park's NPSafe Action Plan. Outline the facility function's role in this program and audit its compliance. Prepare a report of findings for review by supervisor and/or generate FMSS work orders for action toward compliance.</li> <li>▪ Obtain a copy of accident reports generated by facility function activities from the CDSO, look</li> </ul>

OPERATIONS AND MAINTENANCE CHILD COMPETENCIES	POSSIBLE DEVELOPMENTAL ACTIVITIES
	<p>for trends and opportunities to build a safer workplace, and present a report to your supervisor to carry to the next park Executive Safety Steering Committee meeting.</p> <ul style="list-style-type: none"> <li>▪ Conduct an audit of the park’s hazardous waste storage facilities, and prepare a report of findings.</li> <li>▪ Obtain a copy of the park’s hazardous waste disposal manifest log. Prepare a report detailing the annual cost of disposal.</li> <li>▪ Obtain a copy of the park’s hazardous material inventory, research alternative (green) product substitutes, and prepare a proposal detailing cost savings for presentation to senior management by your supervisor.</li> </ul>
<p><b>Emergency Preparedness</b></p>	<ul style="list-style-type: none"> <li>▪ Meet with the park’s chief ranger and discuss the range of emergencies employees and visitors might face in your park area. Develop a list by asset.</li> <li>▪ Obtain a copy of the emergency action plan (EAP), and compare your list with the Plan. Prepare a report of deficiencies for presentation by your supervisor to senior management.</li> <li>▪ Meet with the park’s chief ranger to discuss the facility function’s role in emergency preparedness and response.</li> <li>▪ Prepare draft updates to the EAP based on your findings.</li> <li>▪ Review all emergency and evacuation plans associated with an asset in your park unit.</li> <li>▪ Prepare an inventory of emergency systems that would be required to implement the plan. Determine what training/drills are required to activate them.</li> <li>▪ Develop an inventory of skills/people affected by this implementation, and prepare a schedule for training/drill execution. Present to supervisor for delivery to senior park management.</li> </ul>

## APPENDIX B-2

### OPERATIONS AND MAINTENANCE SAMPLE COURSES

Competency	Course / Developmental Activity (in Alphabetical Order)	Vendor	Supervisor Approval?	Cost / Additional Information
<b>Service Scheduling, Performance, and Tracking</b>	Conducting Effective Surveys	GMU		Classroom Course / Wkshop
	Facility Operations and Maintenance, FMGT230	EMU		Classroom Course / Wkshop
	The Operations and Maintenance Competency Course	IFMA		<b>Cost: Members \$495; Nonmembers \$695</b> Classroom Course / Wkshop
	Operations and Maintenance: Labor Records, MNT1013	NPS	Yes	Web-Based Course
	The Quality Assessment and Innovation Competency Course	IFMA		<b>Cost: Members \$495; Nonmembers \$695</b> Classroom Course / Wkshop
	Quality for Project Managers	DOIU		Classroom Course / Wkshop
	Scheduling and Cost Control	DOIU		Classroom Course / Wkshop
	<b>Facility Management Software</b>	Asset Management: Asset Inventory, MNT 1009	NPS	Yes
Asset Management: Asset Management Reporting System, MNT2003		NPS	Yes	Web-Based Course
Asset Management Process / Facility Management Software System, MNT1001		NPS	Yes	Classroom Course / Wkshop
Managing Park Assets: API, MNT1004		NPS	Yes	Web-Based Course
Managing Park Assets: CRV, MNT2002		NPS	No	Web-Based Course
Operations and Maintenance: Inventory and Resources, MNT1010		NPS	Yes	Web-Based Course
Operations and Maintenance: Mobile FMSS, MNT2005		NPS	Yes	Web-Based Course
Operations and Maintenance: Overview and Introduction to the FMSS, MNT1008		NPS	Yes	Web-Based Course

Facility Management Workforce Development Guide

Competency	Course / Developmental Activity (in Alphabetical Order)	Vendor	Supervisor Approval?	Cost / Additional Information
	Operations and Maintenance: Plans and Preventive Maintenance, MNT1011	NPS	Yes	Web-Based Course
	Operations and Maintenance: Work Order Management, MNT1012			
<b>Health, Safety, and Environmental Factors</b>	Chemical, Biological, and Radiological (CBR) Threats in the Built Environment	IFMA		<b>Cost: Fee associated</b> Audio Course
	Creating Optimal Facilities for People: The Role of Integrated Design	IFMA		<b>Cost: Fee associated</b> Audio Course
	DOI Authorities, Roles, and Responsibilities, RSK8120	NPS	No	Web-Based Course
	DOI Safety and Occupational Health Overview	DOIU		Web-Based Course
	Executive Orientation to Safety and Occupational Health	DOIU		Web-Based Course
	Hazard Communication	DOIU		Web-Based Course
	Human and Environmental Factors, FM200	LRC		Classroom Course / Wkshop
	The Human and Environmental Factors Competency Course	IFMA		<b>Cost: Members \$495; Nonmembers \$695</b> Classroom Course / Wkshop
	Workplace Violence, OPM500	OPM		Free Web-Based Course
<b>Emergency Preparedness</b>	Building Security and Evacuation Planning eSeminar	BOMA		Web-Based Course
	Emergency Preparedness in the Built Environment	IFMA		<b>Cost: Fee associated</b> Classroom Course / Wkshop
	The Human and Environmental Factors Competency Course	IFMA		<b>Cost: Members \$495; Nonmembers \$695</b> Classroom Course / Wkshop
	Preparing Buildings for Sheltering in Place	BOMA		Audio Course
	Security & Awareness in the Built Environment	IFMA		<b>Cost: Fee associated</b> Audio Course



## **Appendix C: Project Management**

Appendix C-1: Developmental Activities  
Appendix C-2: Sample Courses

## APPENDIX C-1

### PROJECT MANAGEMENT DEVELOPMENTAL ACTIVITIES

PROJECT MANAGEMENT CHILD COMPETENCIES	POSSIBLE DEVELOPMENTAL ACTIVITIES
<b>Project Management</b>	<ul style="list-style-type: none"> <li>▪ Log on to PMIS to inventory projects slated for execution by the facility function. Create FMSS reports, compare the two lists, and prepare a report of findings for your supervisor.</li> <li>▪ Identify one project slated for execution and probable funding in a future fiscal year, prepare a project plan, and submit to supervisor with the request that you be assigned responsibility for project execution.</li> <li>▪ Examine all high priority projects for a future fiscal year, and develop a list of compliance concerns/impacts for each, confirming compliance has been initiated. Find one project requiring compliance, and initiate action using PEPC.</li> <li>▪ Take the PEPC e-course.</li> <li>▪ Obtain certification as project manager through the Project Management Institute.</li> </ul>
<b>Programming and Design</b>	<ul style="list-style-type: none"> <li>▪ Using the FMSS and other tools, identify one project that will be included in your park's five-year plan. Develop a project plan, and create the project in PMIS.</li> <li>▪ Identify one project slated for execution. Examine its program and volunteer to assist in the design.</li> <li>▪ Using the FMSS and other accounting data, compare the program to actual expenditures on a previous project.</li> <li>▪ Volunteer to serve on a team designing a project, and prepare an evaluation of the design process and design product for presentation to the design lead.</li> </ul>
<b>Construction and Relocations</b>	<ul style="list-style-type: none"> <li>▪ Obtain certification as a contracting officer's technical representative (COTR)</li> <li>▪ Obtain a detail to a line-item project which is under supervision of a professional construction project manager. Develop an action plan for how you will perform if charged with these duties.</li> <li>▪ Obtain the plans for a construction project that was recently completed. Determine what business needs were to be met by the design, and prepare a report for presentation by your supervisor to senior management.</li> <li>▪ Identify a project where staff will be impacted by project execution. Prepare a relocation plan for these staff.</li> <li>▪ Conduct interviews with staff that were impacted by a previous construction project to assess</li> </ul>

<b>PROJECT MANAGEMENT CHILD COMPETENCIES</b>	<b>POSSIBLE DEVELOPMENTAL ACTIVITIES</b>
	how their relocation impacted them. Determine impacts on productivity (down time), as well as impacts on morale and other less tangible measures.

## APPENDIX C-2

### PROJECT MANAGEMENT SAMPLE COURSES

Competency	Course / Developmental Activity (in Alphabetical Order)	Vendor	Supervisor Approval?	Cost / Additional Information
<b>Project Management</b>	Choosing by Advantages, PDC2005	NPS	Yes	Classroom Course / Wkshop
	Management Training for Supervisors, BMGT218	CSCC		Web-Based Course
	Managing Park Assets: API, MNT1004	NPS	Yes	Web-Based Course
	Managing Park Assets: CRV, MNT2002	NPS	No	Web-Based Course
	The Planning and Project Management Competency Course	IFMA		<b>Cost: Members \$495; Nonmembers \$695</b> Classroom Course / Wkshop
	Project Leadership, Management and Communications	DOIU		Classroom Course / Wkshop
	Project Management Fundamentals	DOIU		Classroom Course / Wkshop
	Project Management: The Fundamentals, NETg (41561)	OPM		Free Web-Based Course
	Quality for Project Managers	DOIU		Classroom Course / Wkshop
	<b>Programming and Design</b>	Creating Optimal Facilities for People: The Role of Integrated Design	IFMA	
Design Fundamentals, ID110		LRC		Classroom Course / Wkshop
The Planning and Project Management Competency Course		IFMA		<b>Cost: Members \$495; Nonmembers \$695</b> Classroom Course / Wkshop
Risk Management		DOIU		Classroom Course / Wkshop
<b>Construction and Relocations</b>	The Planning and Project Management Competency Course	IFMA		<b>Cost: Members \$495; Nonmembers \$695</b> Classroom Course / Wkshop

## **Appendix D: Resource Stewardship**

Appendix D-1: Developmental Activities  
Appendix D-2: Sample Courses

## APPENDIX D-1

### RESOURCE STEWARDSHIP DEVELOPMENTAL ACTIVITIES

RESOURCE STEWARDSHIP CHILD COMPETENCIES	POSSIBLE DEVELOPMENTAL ACTIVITIES
<p><b>Cultural Resources</b></p>	<ul style="list-style-type: none"> <li>▪ Obtain the List of Classified Structures (LCS) for your park. Compare it to the asset inventory and API. Identify discrepancies in the FMSS and determine why these discrepancies exist.</li> <li>▪ Identify the top three cultural resource assets in your park and schedule a visit with park or regional resource managers for a tour. List five activities the facility function performs that could adversely impact the resource's integrity; find their work orders and confirm that mitigating measures are in place.</li> <li>▪ Read the <u>Secretary's Standards for Historic Preservation</u>. Review all work orders for an asset on the LCS. Highlight those in conflict with the Standards, and develop procedures for addition to the work order.</li> <li>▪ Identify one future project which will require compliance and list potential impacts that this project could have on cultural resources. Meet with resource staff, review the list, and ask them what actions need to be taken to satisfy their mandates.</li> <li>▪ Identify one future project which will require compliance, enter the project in PEPC, and work alongside resource management staff as they conduct their review and analysis of the project.</li> </ul>
<p><b>Natural Resources</b></p>	<ul style="list-style-type: none"> <li>▪ "No asset should exist unless it is in direct support of natural or cultural resources." Review three assets in your park that have the highest API, and describe how they meet this statement. Do the same for the three with the lowest API.</li> <li>▪ Meet with resource stewardship staff and take interpretive tours to learn what key natural resources exist in the park.</li> <li>▪ Develop a list that identifies the park's sensitive, threatened, and endangered species.</li> <li>▪ Interview the park's natural resources manager to determine facility function activities that enhance or adversely impact their program's goals. Develop a list of activities or business processes that could be implemented to mitigate the adverse impacts, and present it to your supervisor.</li> <li>▪ Identify one future project which will require compliance. Develop a list of potential impacts this project could have on natural resources. Meet with resource staff, review the list, and ask what actions they will take to satisfy their mandates.</li> </ul>

RESOURCE STEWARDSHIP CHILD COMPETENCIES	POSSIBLE DEVELOPMENTAL ACTIVITIES
	<ul style="list-style-type: none"> <li>▪ Identify one future project which will require compliance, enter the project in PEPC, and work alongside resource management staff as they conduct their review and analysis of the project.</li> </ul>
<p><b>Environmental Leadership</b></p>	<ul style="list-style-type: none"> <li>▪ Obtain a copy of your park’s Environment Management System report and highlight actions and areas where the facility function promotes environmental stewardship. Prepare an article for the park’s newsletter.</li> <li>▪ Obtain a copy of the park’s utility bills or pull a report from the FMSS. Identify the asset which consumes the most energy. Conduct an energy audit, and prepare a report proposing conservation measures, such as a lighting retrofit. The report should detail costs and savings so that a payback period is presented.</li> <li>▪ Obtain a copy of the park’s Integrated Solid Waste Management Plan. Examine how recycling/reuse is applied by offices within the park, and develop a report recommending improvements for presentation to the park’s leadership team by your supervisor.</li> <li>▪ Obtain a copy of the park’s hazardous material inventory, research alternative (green) product substitutes, and prepare a proposal detailing cost savings.</li> </ul>

## APPENDIX D-2

### RESOURCE STEWARDSHIP SAMPLE COURSES

Competency	Course / Developmental Activity (in Alphabetical Order)	Vendor	Supervisor Approval?	Cost / Additional Information
<b>Cultural Resources</b>	CRM Law and Policy for Managers, CRS4020	NPS	Yes	Classroom Course / Wkshop
	Introduction to Historic Preservation History and Philosophy, CRS1001	NPS	No	TEL Course
<b>Natural Resources</b>	High-Performance Green Buildings Workshop	IFMA		<b>Cost: Fee Associated</b> Classroom Courses / Workshops
<b>Environmental Leadership</b>	High-Performance Green Buildings Workshop	IFMA		<b>Cost: Fee Associated</b> Classroom Courses / Workshops
	LEED: High Performance Green Buildings	IFMA		<b>Cost: Fee Associated</b> Audio Course
	What is "Green" Purchasing, Anyway?, OPM008	OPM		Free Web-Based Course

## **Appendix E: Business Management**

Appendix E-1: Developmental Activities  
Appendix E-2: Sample Courses

## APPENDIX E-1

### BUSINESS MANAGEMENT DEVELOPMENTAL ACTIVITIES

<b>BUSINESS MANAGEMENT CHILD COMPETENCIES</b>	<b>POSSIBLE DEVELOPMENTAL ACTIVITIES</b>
<p><b>Plan and Organize the Facility Function</b></p>	<ul style="list-style-type: none"> <li>▪ Review the park’s mission statement, business plan, and/or enabling legislation. List five ways the facility function supports it. (For instance, reflect on the impact a poorly maintained asset has on staff morale/productivity and their ability to fulfill their mission functions).</li> <li>▪ Locate the park’s facility function or facility management division mission statement. If one does not exist, research different approaches to writing mission statements, and develop a proposal for action to your supervisor.</li> <li>▪ Examine how facility function activities are planned and tracked (work &amp; staff scheduling, work reporting, work quality control, work requests, etc.). Look for redundancies and areas of inefficiency. Prepare a report to your supervisor recommending improvements.</li> <li>▪ Join professional organizations, and read literature on trends in parks, recreation, and tourism. Look for trends likely to impact your park and its visitation, and prepare an oral presentation to your park’s leadership team.</li> <li>▪ Examine how the facility function communicates with other park branches informally (timely response to work requests, day-to-day interactions) and formally (reports, replies for information, e-mail, etc.). Look for areas of weakness and opportunities to strengthen communication.</li> <li>▪ Prepare an annual report on the facility function’s accomplishments and future plans for presentation to park or regional leadership.</li> <li>▪ Develop a report on how the facility function affects the park’s business. Translate facility function needs into facility function requirements and how facility management achievements fit business needs.</li> </ul>
<p><b>Budget and Finance</b></p>	<ul style="list-style-type: none"> <li>▪ Develop a report on park and facility function budget trends for your supervisor to present to senior park leadership.</li> <li>▪ Prepare a presentation to senior park leadership on the facility function’s annual budget.</li> <li>▪ Conduct a study of inflation in building materials, and report on its impact on day-to-day facility function activities.</li> <li>▪ Prepare reports for senior management on the facility function that capitalize on financial data (costs of doing business, cost reductions and cost avoidance, life-cycle costing, management</li> </ul>

<b>BUSINESS MANAGEMENT CHILD COMPETENCIES</b>	<b>POSSIBLE DEVELOPMENTAL ACTIVITIES</b>
	<p>and tracking).</p> <ul style="list-style-type: none"> <li>▪ Develop and implement a strategy to report the ongoing performance metrics—stated in financial terms—for the success of the facility function and service providers.</li> </ul>
<b>Assessment and Innovation</b>	<ul style="list-style-type: none"> <li>▪ Complete a detail with NPS' Social Science branch to gain insights and skills in developing, implementing, and analyzing customer surveys.</li> <li>▪ Develop a student intern project for a social scientist to measure staff and/or visitor satisfaction with services provided by the facility function.</li> <li>▪ Develop a list of services the facility function performs. For each, define the measures (what does success look like) and prioritize them. Select the top two, implement improvements, and develop a report for senior management.</li> <li>▪ Develop a list of metrics for performance of the facility function. Develop a proposal for how these measures should be tracked and reported in financial terms.</li> <li>▪ Research a list of laws and regulations the facility function must comply with. Flag those which are mandatory and develop a FMSS work order for each.</li> <li>▪ Develop a prioritized list of other audit activities, such as quality control; develop FMSS work orders; and establish systems to record and report results.</li> <li>▪ Join professional organizations, and network with local membership looking for best practices.</li> <li>▪ Attend maintenance advisory group or regional meetings to network with your peers. Share challenges and successes to identify a set of best practices to emulate.</li> <li>▪ Start a best practices discussion on InsideNPS' Shop Talk forum.</li> <li>▪ Subscribe to professional and technical journals, and encourage your peers and subordinates to do the same. Foster best practices discussions during facility function meetings.</li> </ul>
<b>Human Resource Management</b>	<ul style="list-style-type: none"> <li>▪ Review the facility function's organization chart. If one does not exist, create one, indicating lines of authority and areas of responsibility. Look for disconnects and ways to improve the organization. Prepare a report to your supervisor with recommendations.</li> <li>▪ Interview your servicing personnel officer, and obtain literature/guidance on position management. As the next vacancy occurs within the facility function, apply these principles and prepare a report for your supervisor detailing recommendations on this and future vacancies. Make sure to evaluate all options, including the hiring of non-traditional employees.</li> <li>▪ Prepare a staffing plan for the ultimate facility function in your park based on data from the FMSS. Highlight milestones, such as new facilities or activities that dictate change, and</li> </ul>

BUSINESS MANAGEMENT CHILD COMPETENCIES	POSSIBLE DEVELOPMENTAL ACTIVITIES
<p><b>Technology</b></p>	<p>analyze how function activities might be preformed without staffing increases.</p> <ul style="list-style-type: none"> <li>▪ Join professional organizations, and read technical journals to stay abreast of trends in facility management technologies.</li> <li>▪ Select one technology that is applicable to any aspect of the facility function. Evaluate its effectiveness at solving an existing facility management problem, and prepare a report for your supervisor and senior management.</li> <li>▪ Conduct an inventory of technology currently used to support the facility function's activities, looking for opportunities to increase efficiency.</li> <li>▪ For each existing technology in use, audit skills of users and the need for the development of best practices and procedures for implementation.</li> <li>▪ Develop a proposal for purchase and implementation of the FMSS Mobile in support of the facility function. Conduct base line study, document any changes in efficiency, and prepare a report for senior management detailing cost savings/benefits in justification of a wider deployment.</li> </ul>

## APPENDIX E-2

### BUSINESS MANAGEMENT SAMPLE COURSES

Competency	Course / Developmental Activity (in Alphabetical Order)	Vendor	Supervisor Approval?	Cost / Additional Information
<b>Plan and Organize the Facility Function</b>	Business Process Improvement for FM	IFMA		<b>Cost: Fee associated</b> Audio Course
	Choosing by Advantages, PDC2005	NPS	Yes	Classroom Course / Wkshop
	The Leadership and Management Competency Course	IFMA		<b>Cost: Members \$495; Nonmembers \$695</b> Classroom Course / Wkshop
	Organizational Behavior, BMGT211	CSCC		Web-Based Course
<b>Budget and Finance</b>	Budget and Accounting: Making the Connection	DOIU		Classroom Course / Wkshop
	Budget and Accounting for Non-Financial Managers	DOIU		Classroom Course / Wkshop
	Facility Condition Assessment Survey, MNT1002	NPS	Yes	Classroom Course / Wkshop
	Finance Competency Course	IFMA		<b>Cost: Members \$495; Nonmembers \$695</b> Classroom Course / Wkshop
	Fiscal Survival: Make Your Outsource Provider a Strategic Partner	IFMA		<b>Cost: Fee associated</b> Audio Course
	Fundamental Accounting Procedures in Federal Agencies	DOIU		Classroom Course / Wkshop
	Introduction to Park Program Management, ADM2010	NPS	Yes	Classroom Course / Wkshop
<b>Assessment and Innovation</b>	Scheduling and Cost Control	DOIU		Classroom Course / Wkshop
	Benchmarking: Tools for Measuring Operational Performance	BOMA		Web-Based Course
	Business Process Improvement for FM	IFMA		<b>Cost: Fee associated</b> Blended Learning Course, Audio Course
	Change, Chaos, Contrasts, and Compromise: Workplace of the Future	IFMA		<b>Cost: Fee associated</b> Audio Course

Facility Management Workforce Development Program

Competency	Course / Developmental Activity (in Alphabetical Order)	Vendor	Supervisor Approval?	Cost / Additional Information
	Conducting Effective Surveys	GMU		Classroom Course / Wkshop
	Excellence in Service: Fundamentals for Managers, NETg (44004)	OPM		Free Web-Based Course
	Keeping the Wolves From Your Door: Doing a Great FM Job, Measuring It, and Telling the People Who Need to Know	IFMA		<b>Cost: Fee associated</b> Audio Course
	Management Training for Supervisors, BMGT218	CSCC		Web-Based Course
	The Quality Assessment and Innovation Competency Course	IFMA		<b>Cost: Members \$495; Nonmembers \$695</b> Classroom Course / Wkshop
<b>Human Resource Management</b>	360-Degree Feedback: Experiencing 360-Degree Feedback, NETg (47201)	OPM	No	Free Web-Based Course
	Basic 40-Hour Supervision	DOIU		Classroom Course / Wkshop
	Building Trust and Rapport in the Workplace, UNC0049	NPS	Yes	Classroom Course / Wkshop
	Communicating to Enhance Productivity and Professionalism, SML3115	NPS	Yes	Classroom Course / Wkshop
	Communication Skills for Successful Management, SkillSoft (MGMT0122)	OPM		Free Web-Based Course
	Dealing with Misconduct, SML6210	NPS	No	TEL / Interactive
	Frontline Leadership: Knowledge in the Workplace, NETg (46102)	OPM		Free Web-Based Course
	Human Resource Management, HRM121	CSCC		Web-Based Course
	The Leadership and Management Competency Course	IFMA		<b>Cost: Members \$495; Nonmembers \$695</b> Classroom Course / Wkshop
	Management Skills for the Diverse Work Force, SkillSoft (HR0145)	OPM		Free Web-Based Course
	Management Training for Supervisors, BMGT218	CSCC		Web-Based Course
	Managing Interpersonal Skill I, BMGT102	CSCC		Web-Based Course
	Organization Communication, BMGT208	CSCC		Web-Based Course
	Organizational Behavior, BMGT211	CSCC		Web-Based Course

Facility Management Workforce Development Guide

Competency	Course / Developmental Activity (in Alphabetical Order)	Vendor	Supervisor Approval?	Cost / Additional Information
	Performance Management System	DOIU		Web-Based Course
	Sexual Harassment: Preventing Sexual Harassment Claims, NETg (47302)	OPM		Free Web-Based Course
	Sexual Harassment: Resolving Sexual Harassment Claims, NETg (47303)	OPM		Free Web-Based Course
<b>Technology</b>	Computer-Aided Facility Management, FMGT417	EMU		Classroom Course / Wkshop
	Operations and Maintenance: Plans and Preventive Maintenance, MNT1011	NPS	Yes	Web-Based Course
	Operations and Maintenance: Establishing a Preventive Maintenance Program, MNT2004	NPS	Yes	Web-Based Course
	Operations and Maintenance: Mobile FMSS, MNT2005	NPS	Yes	Web-Based Course
	Optimizing Your Existing FM Technology	IFMA		<b>Cost: Fee associated</b> Audio Course
	The Technology Competency Course	IFMA		<b>Cost: Members \$495;</b> <b>Nonmembers \$695</b> Classroom Course / Wkshop



## **Appendix F: Supervision and Leadership**

Appendix F-1: Developmental Activities

Appendix F-2: Sample Courses

## APPENDIX F-1

### SUPERVISION AND LEADERSHIP DEVELOPMENTAL ACTIVITIES

<b>SUPERVISION AND LEADERSHIP CHILD COMPETENCIES</b>	<b>POSSIBLE DEVELOPMENTAL ACTIVITIES</b>
<b>Leading Change</b>	<ul style="list-style-type: none"> <li>▪ Developmental activities and suggestions are available in NPS' Supervisory Development and Training Guidelines. Contact your park or regional training office for a copy.</li> </ul>
<b>Leading People</b>	
<b>Results Driven</b>	
<b>Business Acumen</b>	
<b>Building Coalitions and Communications</b>	

## APPENDIX F-2

### SUPERVISION AND LEADERSHIP SAMPLE COURSES

Competency	Course / Developmental Activity (in Alphabetical Order)	Vendor	Supervisor Approval?	Cost / Additional Information
<b>Leading Change</b>	Change Management: Managing Change, NETg (41003)	NETg / OPM		Free Web-Based Course
	Implementing Organizational Change	DOIU		Classroom Course / Wkshop
	Leadership Fundamentals, BMGT220	CSCC		Web-Based Course
	Project Leadership, Management and Communications	DOIU		Classroom Course / Wkshop
<b>Leading People</b>	Basic 40-Hour Supervision	DOIU		Classroom Course / Wkshop
	Building Trust and Rapport in the Workplace, UNC0049	NPS		Classroom Course / Wkshop
	Communicating to Enhance Productivity and Professionalism, SML3115	NPS		Classroom Course / Wkshop
	Effective Mentoring, SkillSoft (MGMT0251)	OPM		Free Web-Based Course
	Emotional Intelligence in The Workplace	DOIU		Classroom Course / Wkshop
	Interaction Management	DOIU		Classroom Course / Wkshop
	Managing Interpersonal Skill I, BMGT102	CSCC		Web-Based Course
	Organization Communication, BMGT208	CSCC		Web-Based Course
	Organizational Behavior, BMGT211	CSCC		Web-Based Course
	Workplace Diversity, SkillSoft (HR0141)	OPM	No	Free Web-Based Course
<b>Results Driven</b>	Emotional Intelligence in The Workplace	DOIU		Classroom Course / Wkshop
	Quality for Project Managers	DOIU		Classroom Course / Wkshop
	Excellence in Service: Fundamentals for Managers, NETg (44004)	OPM		Free Web-Based Course
	Transitioning To A Supervisory Role: Leadership Skills Development	DOIU		Classroom Course / Wkshop

Facility Management Workforce Development Program

Competency	Course / Developmental Activity (in Alphabetical Order)	Vendor	Supervisor Approval?	Cost / Additional Information
<b>Business Acumen</b>	Creating a Business Execution Culture, SkillSoft LEAD0152	OPM		Free Web-Based Course
	Scheduling and Cost Control	DOIU		Classroom Course / Wkshop
	The Transparency Edge: How Credibility Can Make or Break You in Business	IFMA		<b>Cost: Fee associated</b> Audio Course
<b>Building Coalitions and Communications</b>	Communicating to Enhance Productivity and Professionalism, SML3115	NPS	Yes	Classroom Course / Wkshop
	The Communication Competency Course	IFMA		<b>Cost: Members \$495; Nonmembers \$695</b> Classroom Course / Wkshop
	Conquering Conflict through Communication, SkillSoft (TEAM0214)	OPM		Free Web-Based Course
	Effective Negotiation Techniques, UNC0036	NPS	Yes	Classroom Course / Wkshop
	Effective Presentations	DOIU		Classroom Course / Wkshop
	Interaction Management	DOIU		Classroom Course / Wkshop
	Mastering Intercultural Communications	DOIU		Classroom Course / Wkshop
	Negotiating: The Negotiation Process, NETg (41082)	OPM		Free Web-Based Course
	Organization Communication, BMGT208	CSCC		Web-Based Course
	Organizational Behavior, BMGT211	CSCC		Web-Based Course
	Writing Foundations I: Basics of Grammar, Punctuation, & Word Usage	DOIU		Classroom Course / Wkshop
	Writing Performance Standards	DOIU		Classroom Course / Wkshop

## **Appendix G: Training Provider and Higher Education Information**

Facility Management Learning Opportunity Resources

Supplementary Funding Sources

Colleges and Universities: Undergraduate, Graduate, and Continuing Education Resources

## APPENDIX G

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### TRAINING PROVIDER AND HIGHER EDUCATION INFORMATION

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#### **Facility Management Learning Opportunity Resources**

The expertise required for a facility manager in the NPS displays certain unique qualities compared to those who practice facility management in a non-NPS environment. The culture within the NPS breeds highly independent, motivated individuals, who are committed to the preservation and conservation of their assets. NPS facility managers focus on life-cycle asset management, making long-term plans for the stewardship of an asset, in addition to disposals and acquisitions. The assets themselves are also distinctive and vary widely from park to park. In addition to these unique NPS asset management issues, limited government funding provides a further test of today's NPS facility manager.

Though the NPS mission, culture, and practices set it apart from private sector organizations, there is a core of facility management business skills common to both. As such, NPS facility managers often must find creative ways to supplement a degree or certificate program designed to meet the needs of a public sector facility manager. College and university courses in strategic planning for parks, recreation, and public land agencies, for example, may be very valuable to today's NPS facility manager. Because standard facility management curricula would not include such courses, NPS facility managers must seek out such valuable coursework on their own. If you are interested in pursuing coursework in Facility Management through a college or university, you may contact the Maintenance Training Manager, Training and Development for more information.

Please Note: The following table provides a list of different organizations and training providers you can access to help you find learning opportunities that might meet your facility management competency needs. It is important to note that the listed training providers and the learning opportunities they offer have *not* been extensively reviewed or validated by the NPS. Additionally, this list is not all-encompassing; many other high-quality training providers exist that may not be included here. This list is meant to serve as a reference and starting point from which to begin seeking out learning opportunities.

## Facility Management Workforce Development Guide

TRAINING PROVIDER / VENDOR	WEBSITE	COMMENTS
American Public Works Association (APWA)	<a href="http://www.apwa.net/Education/">http://www.apwa.net/Education/</a>	Click, Listen, & Learn courses; online courses; live workshops; educational videos and CD-ROMs; Public Works Institutes; and conferences.
American Traffic Safety Services Association (ATSSA)	<a href="http://www.atssa.com/">http://www.atssa.com/</a>	Work Zone Inspection courses, web-based seminars, Traffic Control courses, and various guides and certifications.
The Association of Energy Engineers (AEE)	<a href="http://www.aeecenter.org/">http://www.aeecenter.org/</a>	Indoor Air Quality Professional and Certified Energy Manager certifications; live, online, self-paced, and in-house seminars; and a “24-7” online university.
Association for Facilities Engineering (AFE)	<a href="http://afe.org/">http://afe.org/</a>	Plant Maintenance Manager (CPMM) and Plant Engineer (CPE) certifications, computer-based training, seminars, live online chats, and web-based seminars.
Association of Higher Education Facilities Officers (APFA)	<a href="http://www.apfa.org/">http://www.apfa.org/</a>	Institute for Facilities Management, the Leadership Academy, Educational Facilities Leadership Forum, and Supervisor’s Toolkit.
Association of State Dam Safety Officials (ASDSO)	<a href="http://www.damsafety.org">http://www.damsafety.org</a>	CD-ROM courses, such as Training for Rehabilitation of Aging Watershed Dams; national and regional conferences; technical seminars; and links to other learning opportunities.
Building Owners & Managers Association International (BOMA) and Building Owners and Managers Institute International (BOMI)	<a href="http://www.boma.org/TrainingAndEducation/">http://www.boma.org/TrainingAndEducation/</a> <a href="http://www.bomi-edu.org/">http://www.bomi-edu.org/</a>	Master Facility Executive certification; Real Property Administrator® (RPA); Facilities Management Administrator® (FMA); Systems Maintenance Technician® (SMT); Systems Maintenance Administrator® (SMA); online seminars; and residential courses.
Campbell Center for Historic Preservation Studies	<a href="http://www.campbellcenter.org/">http://www.campbellcenter.org/</a>	Residential courses and workshops including historic preservation, collections care, and conservation refreshers; course examples include Preservation of Historic Cemeteries, Historic Masonry Restoration, and Stabilization & Maintenance of Historic Structures.

Facility Management Workforce Development Program

TRAINING PROVIDER / VENDOR	WEBSITE	COMMENTS
Department of the Interior University (DOI)	<a href="http://www.doiu.nbc.gov/">http://www.doiu.nbc.gov/</a>	Classroom and online courses, leadership programs, intern programs, customized training, forums and special projects, and DOI library.
The Disney Institute	<a href="http://www.disneyinstitute.com/index.asp">http://www.disneyinstitute.com/index.asp</a>	Coursework and seminars in leadership excellence, loyalty, quality service, and organizational creativity.
Emergency Management Institute (EMI), Federal Emergency Management Agency (FEMA)	<a href="http://www.training.fema.gov/EMIWeb/EMICourses/EMICatalog.asp">http://www.training.fema.gov/EMIWeb/EMICourses/EMICatalog.asp</a>	Residential, field, independent study, and online courses offered, which relate to emergency management with the possibility of achieving CEU's and college credit.
Federal Energy Management Program (FEMP)	<a href="http://www.eere.energy.gov/femp/newsevents/fempfocus_filter.cfm/catid=36">http://www.eere.energy.gov/femp/newsevents/fempfocus_filter.cfm/catid=36</a>	Classroom-based, teleconference, and online courses available free of charge. Topics include sustainable design, life-cycle cost analysis, utility management, new technologies, and lighting and health.
Federal Fleet Policy Council, FedFleet Manager Workshop	<a href="http://www.fedfleet.org/">http://www.fedfleet.org/</a>	GSA's annual workshop and seminars for fleet managers. Topics include basic fleet management, hazardous waste, fleet safety and accident prevention, alternative fuels, and data analysis.
Historic Windsor, Inc. and the Preservation Education Institute	<a href="http://www.preservationworks.org/">http://www.preservationworks.org/</a>	Certificate in Preservation Skills and Technology, courses, and workshops.
Human Factors and Ergonomics Society (HFES)	<a href="http://www.hfes.org/web/Default.aspx">http://www.hfes.org/web/Default.aspx</a>	Directory of colleges, certification programs, and conferences relating to ergonomics and design.
Indian Health Service, Environmental Health Support Center (EHSC)	<a href="http://www.opheng.ihs.gov/">http://www.opheng.ihs.gov/</a>	Catalog offering courses and workshops on code, infrastructure construction, and maintenance. Contact Steve Hastings ( <a href="mailto:steve_hastings@nps.gov">steve_hastings@nps.gov</a> ) for information on tuition and registration.
International Code Council	<a href="http://www.iccsafe.org/training/">http://www.iccsafe.org/training/</a> <a href="http://www.icccampus.org/">http://www.icccampus.org/</a>	Professional certification, basic and advanced seminars, special events, teleconference courses, training materials, and an academic opportunity center focusing on safety and performance of the built environment. The ICC Online Campus offers technical courses and certifications that can be completed online at any time.

Facility Management Workforce Development Guide

TRAINING PROVIDER / VENDOR	WEBSITE	COMMENTS
International Facility Management Association (IFMA)	<a href="http://www.ifma.org/learning/online/index.cfm">http://www.ifma.org/learning/online/index.cfm</a>	Certified Facility Manager (CFM) program and Facility Management Professional (FMP) designation, online courses, classroom-based courses, audio seminars, and conference and special events for non-members.
National Academy of Sciences, Federal Facilities Council	<a href="http://www7.nationalacademies.org/ffc/">http://www7.nationalacademies.org/ffc/</a>	Workshop and seminars (free to DOI ); publications available online or download at <a href="http://www.nap.edu">www.nap.edu</a> including <u>Committing to the Cost of Ownership</u> , <u>Stewardship of Federal Facilities</u> , <u>Investments in Federal Facilities Asset Management Strategies for the 21st Century</u> , and others.
National Center on Accessibility (NCA)	<a href="http://www.ncaonline.org/training/">http://www.ncaonline.org/training/</a>	Online, distance learning, and classroom-based courses relating to accessibility in recreation, parks, and tourism.
National Center for Construction Education and Research (NCCER)	<a href="http://www.nccer.org/academies/academies.asp">http://www.nccer.org/academies/academies.asp</a>	Academies in Project Supervision, Project Management, and Safety Management; CD-ROM courses; e-learning opportunities; National Construction Career Tests; and downloadable curriculum and manuals.
National Center for Preservation Technology & Training (NCPTT)	<a href="http://www.ncptt.nps.gov/">http://www.ncptt.nps.gov/</a>	Architecture and Engineering summer institute, Cemetery Preservation training, research publications and guides, Heritage Education online, and Heritage Education mini-grants.
National Enforcement Training Institute (NETI), Environmental Protection Agency (EPA)	<a href="http://www.epa.gov/compliance/training/index.html">http://www.epa.gov/compliance/training/index.html</a>	Classroom-based, online, and CD-ROM courses for facility compliance inspectors. All NETI courses are free of charge.
National Environmental Training Center for Small Communities (NETCSC), National Environmental Services Center	<a href="http://www.nesc.wvu.edu/netcsc/netcsc_index.htm">http://www.nesc.wvu.edu/netcsc/netcsc_index.htm</a>	Courses, resources, and self study materials relating to asset management, wastewater management, and self-assessment tools for small community systems.
National Fire Academy, U.S. Fire Administration	<a href="http://www.usfa.fema.gov/training/nfa/coffee-break/">http://www.usfa.fema.gov/training/nfa/coffee-break/</a>	Classroom courses, distance learning events, Executive Fire Officer Program, Coffee Break training email updates, independent study guidelines, virtual training, and links to other learning resources relating to structural fire code and safety.

Facility Management Workforce Development Program

TRAINING PROVIDER / VENDOR	WEBSITE	COMMENTS
National Highway Institute (NHI) Training Programs	<a href="http://www.nhi.fhwa.dot.gov/training.asp">http://www.nhi.fhwa.dot.gov/training.asp</a>	Courses, seminars, and workshops for highway engineers, preventive maintenance, and general facility management, as well as listing of other training resources and organizations.
National Park Service (NPS), The Learning Place	<a href="http://www.nps.gov/training">http://www.nps.gov/training</a>	Access to competencies, classroom-based and online courses, and learning resources for all NPS employees. Catalog includes listing of current courses available to facility management personnel.
NPS WASO-PFMD Environmental Management Program	<a href="http://inside.nps.gov/waso/waso.cfm?prg=613&amp;lv=4">http://inside.nps.gov/waso/waso.cfm?prg=613&amp;lv=4</a>	Courses including Hazardous Waste Operations and Emergency Response, Hazard Communication Train-the-Trainer Program, and various resources and guides.
NPS WASO-PFMD Facility Management	<a href="http://inside.nps.gov/waso/custommenu.cfm?lv=4&amp;prg=193&amp;id=1072">http://inside.nps.gov/waso/custommenu.cfm?lv=4&amp;prg=193&amp;id=1072</a>	Links to different facility management e-courses. NPS classes are posted in My Learning Manager.
National Preservation Institute	<a href="http://www.npi.org/">http://www.npi.org/</a>	Professional training seminars and on-site courses relating to historic preservation and cultural resource management.
National Trails Training Partnership (NTTP)	<a href="http://www.americantrails.org/nttp/default.htm">http://www.americantrails.org/nttp/default.htm</a>	Online training database of current and upcoming training courses, workshops, and conferences relating to trail management and design.
Office of Environmental Policy and Compliance (OEPC), Department of the Interior (DOI)	<a href="http://www.doi.gov/oepec/nrmtraining.html">http://www.doi.gov/oepec/nrmtraining.html</a>	Links to Compendium of NEPA Training and other training resources.
Office of Personnel Management (OPM)	<a href="http://www.usalearning.gov/USALearning/">http://www.usalearning.gov/USALearning/</a>	Online and classroom-based courses including communication, customer service , human resources, leadership, management, PC and business applications, personal development, problem solving and decision making, project management, and team building.
Project Management Institute (PMI)	<a href="http://www.pmi.org/info/default.asp">http://www.pmi.org/info/default.asp</a>	Project Management Professional (PMP) Certification and the Certified Associate in Project Management (CAPM); online courses; web-based self-study; classroom-based courses; and web-based seminars.

TRAINING PROVIDER / VENDOR	WEBSITE	COMMENTS
US Bureau of Reclamation	<a href="http://www.usbr.gov/ssle/dam_safety/trn_domestic.html">http://www.usbr.gov/ssle/dam_safety/trn_domestic.html</a> <a href="http://www.usbr.gov/ssle/dam_safety/traininglinks.html">http://www.usbr.gov/ssle/dam_safety/traininglinks.html</a>	Seminar On Safety Evaluation of Existing Dams and other resources for dam management.
US Green Building Council	<a href="http://www.usgbc.org/DisplayPage.aspx?CategoryID=127">http://www.usgbc.org/DisplayPage.aspx?CategoryID=127</a>	Leadership in Energy Efficiency Design (LEED) Professional Accreditation, workshops, web-based learning, conferences, and an online emerging green builders forum.
USDA Graduate School, Leadership Programs	<a href="http://www.grad.usda.gov/cgi-bin/sb/nav.cgi?nav=100389">http://www.grad.usda.gov/cgi-bin/sb/nav.cgi?nav=100389</a>	Leadership academies and courses for government employees at all levels.
Whole Building Design Guide (WBDG)	<a href="http://www.wbdg.org/newsevents/index.php">http://www.wbdg.org/newsevents/index.php</a>	Courses and training events from a wide variety of facility management and design organizations.
World Green Building Council	<a href="http://www.worldgbc.org/">http://www.worldgbc.org/</a>	CD-ROMS, books, manuals, newsletters, and other publications relating to global green building standards.

### Supplementary Funding Sources

If you would like to participate in a learning opportunity that requires a fee and need funding assistance, visit the Learning Place's Developmental Programs at: <http://www.nps.gov/training/develop.htm>. This page includes valuable programs, such as the Albright-Wirth Grant Program, that provide financial assistance to NPS employees for their professional development.

### Colleges and Universities:

#### Undergraduate, Graduate, and Continuing Education Resources

Community colleges and universities across the country provide a wealth of learning opportunities to help you meet your professional development goals. Coursework might include traditional classroom courses, distance learning opportunities, seminars, and a variety of other learning events to meet your particular needs.

In addition to facility and park management courses, most colleges and universities offer a wide variety of classes that address different facility manager competencies, including communication skills, leadership, managing change, business acumen, and many more.

Contacting a college or university

Contacting a college in your area to learn more about opportunities available to you initially may be an overwhelming task. However, colleges and universities employ numerous individuals whose jobs are to assist you in finding the right coursework or programs to meet your goals.

To contact a college in your area:

- 1.) Visit the college or university's website. Most will have a course catalog available online that you can explore to find courses of interest.
- 2.) Call the main college or university information line and explain that you are interested in Professional Development courses, Continuing Education, or non-degree courses. Ask to be connected to a department or career counselor in one of these areas.
- 3.) Once you have been connected to a Lifelong Learning, Professional Development, or Continuing Education department, explain that you are interested in taking a course in an area that you identified in your Individual Development Plan.
- 4.) After explaining what your learning objectives are, the adviser should be able to discuss different course options and direct you to course catalog and registration information. The college adviser is there to help you find the courses that will best meet your personal goals. You can also ask him or her for information on how to sign up for a course; whether or not there are night, weekend, or distance learning courses; and which courses are for credit and which are not for credit.
- 5.) Remember, don't be afraid to ask questions throughout this process. If you wish, make an appointment to sit down and discuss your options with an adviser or career counselor.

## **Appendix H: A Bibliography of Current Facility Management Textbooks**

## APPENDIX H

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### A BIBLIOGRAPHY OF CURRENT FACILITY MANAGEMENT TEXTBOOKS

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Please Note: The following list of facility management textbooks may become useful references in your independent study of current facility management practices. It is important to note that these textbooks have *not* been extensively reviewed or validated by the NPS. Additionally, this list is not all-encompassing; many other high-quality textbooks may not be included here. This list is meant to serve as a reference and starting point to begin seeking out learning opportunities.

Alexander, Keith. *Facilities Management: Theory and Practice*. Spon Press: 1996.

This book provides an overview of the interdisciplinary nature of facilities management. It discusses the framework within which facility managers should operate and the key requirements of their task. Topics include FM skills, organization, building, environment, information systems, and project management.

Barrett, Peter, David Baldry. *Facilities Management: Towards Best Practice*. 2<sup>nd</sup> edition. Blackwell Publishing: 2003.

This book takes models and ideas from a wide range of sources and links them to extensive case study material drawn from practicing facility managers. The text is divided into three parts: 1) current practice, with a second chapter that looks at the enhancement of services, 2) the consideration of key facilities management issues: user needs evaluation, outsourcing, and computer-based information systems, 3) the provision of extensive advice on managing people through change and on decision making.

Campbell, Nancy J. *Writing Effective Policies and Procedures: A Step-by-Step Resource for Clear Communication*. American Management Association: January 1998.

This resource is a step-by-step guide to clear communication. It is written in an informal style and loaded with pragmatic tools that make it easy to create the policy or procedure you need.

Committee on Advanced Maintenance Concepts for Buildings, Building Research Board, National Research Council. *Committing to the Cost of Ownership: Maintenance and Repair of Public Buildings*. National Academies Press: 1990.

The National Academy Press publishes the reports issued by the National Academy of Sciences, the National Academy of Engineering, the Institute of Medicine, and the National Research Council, all operating under a charter granted by the Congress of the United States.

Committee to Assess Techniques for Developing Maintenance and Repair, National Research Council. *Stewardship of Federal Facilities: A Proactive Strategy for Managing the Nation's Public Assets*. National Academies Press: 1998.  
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The National Academy Press publishes the reports issued by the National Academy of Sciences, the National Academy of Engineering, the Institute of Medicine, and the National Research Council, all operating under a charter granted by the Congress of the United States.

Cotts, David G. *The Facility Management Handbook*. 2<sup>nd</sup> edition. American Management Association: 1998.  
When a company's facilities are intelligently, cohesively managed—rather than just haphazardly operated—the results go straight to the bottom line. And given the high costs associated with facilities, the savings that good management brings are significant. Now completely revised and updated, this bestseller covers the entire facility management arena, including: strategic facility business planning, leadership, managing the design process, managing facility finances, operations, maintenance, and repair.

Cotts, David G, Ed Rondeau. *The Facility Manager's Guide to Finance and Budgeting*. American Management Association: 2002.  
The book explains how to understand the essential concepts of facility work programs and programmatic planning and budgeting; develop and manage an annual expense budget, then evaluate the results; make financially sound "go/no go" decisions on projects that require capital funding; pinpoint significant cost-savings and cost-containment areas; use unit-cost indicators to benchmark facility management initiatives; and create an information system and database that ties directly into the budget.

Friday, Stormy. *Organization Development for Facility Managers: Tracing the DNA of FM Organizations*. American Management Association: 2003.  
This book is the first to show facility management professionals how to develop, achieve, and sustain organizational effectiveness. In addition to demonstrating the importance of organization development in FM, the book accelerates real-world implementation with a variety of charts, graphs, and case examples, plus entire sections on structuring facility management organizations; understanding and influencing group

behavior; assessing, motivating, and rewarding FM staff; and preparing FM organizations for challenge and change.

Gross, John M. *Fundamentals of Preventive Maintenance*. American Management Association: 2002.

This resource provides readers with an easy-to-follow, economically sensible maintenance and work order management program. This results-driven guidebook outlines a 7-step process for designing and implementing the program, describing both what needs to be done and why. Designed to transform an often unwieldy program into one that can be effectively managed, it provides hands-on techniques for establishing critical scheduling protocols, managing the daily work order schedule, developing and issuing preventive maintenance work orders, and monitoring/improving the program.

Lewis, Bernard T. *Facility Manager's Operation and Maintenance Handbook*. McGraw Hill: 1999.

This practical handbook takes you through each step in the planning, design, and execution of maintenance and operation procedures for structures, equipment, and systems. It features special emphasis on emergency and energy equipment used in facilities—and explores all essential support functions and duties. This handbook provides you with a complete picture of facility operation and maintenance, from technical checklists, to cost control, to computer applications.

Lewis, Bernard T, Richard P. Payant. *The Facility Manager's Emergency Preparedness Handbook*. Lightning Source Inc: September 2005.

Facility managers have to be ready for anything: bomb threats, flooding, labor strikes, workplace violence—the list goes on and on. Since 9/11, efforts toward emergency preparedness have increased substantially, making this definitive reference a very timely in addition to potentially lifesaving book.

Liska, Roger W, Judith Morrison Liska. *Building Maintenance: Forms, Checklists, and Procedures*. Prentice Hall: 2001.

In this book, hundreds of companies of all sizes and types have shared their ideas, needs, and the actual maintenance forms in use in their companies today. Carefully constructed to meet the needs of all types of managers, this book will not only aid those who have a need of a workable system of documentation, but also those who would like to design their own system.

Nutt, Bev, McLennan, Peter. *Facility Management: Risks and Opportunities*. Blackwell Publishing Company: 2000.

This book covers four identifiable trails that lead to improved facility management. These include the business, people, property, and knowledge trails. Topics covered include asset management, FM ethics, accountability, and workplace support.

Richman, Larry. *Improving Your Project Management Skills*. American Management Association: 2006.

This resource covers management fundamentals; leading and directing project teams; workload breakdown; work estimation; and creating, monitoring, and controlling project plans.

R.S. Means Co. Inc. *Cost Planning & Estimating for Facilities Maintenance*. R.S. Means.

This book provides techniques for planning and budgeting - for all major building types in the private and public sector. Includes the maintenance and repair needs for all major building components, understanding funding opportunities, using Means Cost Data and more.

R.S. Means Co. Inc. *Preventive Maintenance for Higher Education Facilities*. R.S. Means: 2002.

This resource explains the importance of Preventive Maintenance for maintaining building components, and it also describes the implementation of PM plans. Topics covered include using building models and PM Standards/Checklists for structures such as boilers, fire protection equipment, valves, etc.

Rondeau, Edmond, Robert Kevin Brown, Paul D. Lapidés. *Facility Management*. John Wiley & Sons, Inc: 1995.

This resource follows the nine core responsibilities identified by the International Facility Management Association and guides the reader through critical planning and decision-making steps in strategic planning, financial forecasting, real estate acquisition and disposition, architectural and engineering design, interior programming and space planning, project management, renovation projects, maintenance, operations, and administrative services. Interwoven among the fundamentals are approaches to today's most challenging issues: changing technology, indoor environments, energy conservation, ergonomics, health and safety, inventory, and security.

Teicholz, Eric. *Facility Design and Management Handbook*. McGraw Hill: 2001.

This guide gives you access to the productivity tools, technologies, and strategies that have revolutionized the field in the last five years, helping you to find the best, most cost-effective solutions for issues, from greenness and sustainability to disaster recovery and technology integration. Other topics include using new tools for space and asset allocation, project management, process coordination, systems integration, financial forecasting, and budgeting.

Westerkamp, Thomas A. *Maintenance Manager's Standard Manual*. 2<sup>nd</sup> edition.

This reference manual provides practical answers to the most perplexing problems facing those who practice or teach maintenance management. This manual contains practical procedures for organizing, planning, scheduling, assigning, and documenting all types of maintenance work.