

# **COMMONWEALTH OF VIRGINIA**



**Information Technology Resource Management (ITRM)**

## **PROJECT MANAGER SELECTION AND TRAINING STANDARD**

**Virginia Information Technologies Agency (VITA)**

## Reviews

- This publication was reviewed and approved by the Director of the Policy, Practice and Architecture Division.
- Online review was provided for agencies and other interested parties via the VITA Online Review and Comment Application (ORCA).

## Publication Version Control

Questions related to this publication should be directed to the Director of VITA's Policy, Practice, and Architecture (PPA) Division. PPA notifies Agency Information Technology Resources (AITRs) at all state agencies, institutions and other interested parties of proposed revisions to this document.

This following table contains a history of revisions to this publication.

<b>Version</b>	<b>Date</b>	<b>Revision Description</b>
ITRM Standard GOV 2003-02.3	09/26/2003	Publication of Base Document
ITRM Standard CPM 111-01	07/14/2009	First Revision. Align Standard with Commonwealth business needs.
ITRM Standard CPM 111-02	11/28/2011	Administrative changes. Align Standard with Commonwealth Project Management Standard.
ITRM Standard CPM 111-02.1	05/15/2015	Administrative changes. Replace entirety of Section 4 regarding new test descriptions and test procedures.
ITRM Standard CPM 111-03	12/21/2015	Major changes; added more qualification categories, expanded experience requirements; introduces concept that PM qualifications can become dormant through inactivity, and how to remain currently qualified.

## Identifying Changes in this Document

See the latest entry in the revision table above.

# Preface

## Publication Designation

ITRM Project Manager Selection and Training  
Standard CPM 111-03

## Subject

Project Manager Selection and Training

## Effective Date

December 21, 2015

## Supersedes

ITRM Project Manager Selection and Training  
Standard CPM 111-02.1, May 15, 2015

## Scheduled Review:

This standard shall be reviewed on an annual basis.

## Authority

*Code of Virginia*, §2.2-225 (Powers and duties of the Secretary of Technology (SoTech))

*Code of Virginia*, §2.2-2007 (Powers of the CIO)

Code of Virginia §2.2-2008 (Additional duties of the CIO relating to project management)

*Code of Virginia*, § 2.2-2010 (Additional powers of VITA)

## Scope

This standard is applicable to all Executive Branch state agencies and institutions of higher education (hereinafter collectively referred to as "agencies") that are responsible for the management, development, purchase and use of information technology resources in the Commonwealth of Virginia. This standard does not apply to research projects, research initiatives or instructional programs at public institutions of higher education.

## Purpose

This standard establishes direction and technical requirements which govern the acquisition, use and management of information technology resources by executive branch agencies.

## General Responsibilities

### ***Chief Information Officer of the Commonwealth (CIO)***

Develop, review and approve statewide technical and data policies, standards and guidelines for information technology and related systems.

### ***Virginia Information Technologies Agency (VITA)***

At the direction of the CIO, VITA leads efforts that draft, review and update technical and data policies, standards, and guidelines for information technology and related systems. VITA uses requirements in IT technical and data related policies and standards when establishing contracts; reviewing procurement requests, agency IT projects, budget requests and strategic plans; and when developing and managing IT related services

### ***Information Technology Advisory Council (ITAC)***

Advise the CIO on the development, adoption and update of statewide technical and data policies, standards and guidelines for information technology and related systems.

### ***Executive Branch Agencies***

Provide input and review during the development, adoption and update of statewide technical and data policies, standards and guidelines for information technology and related systems.

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# **1. INTRODUCTION**

## ***1.1 Purpose of the Standard***

The purpose of the Information Technology Resource Management Project Manager Selection and Training Standard (PMST Standard) is to:

- Describe the required skills, training and experience Commonwealth Project and Program Managers need to have in order to be considered qualified to manage Commonwealth IT projects.
- Provide a method for identifying Project and Program Managers qualified to manage Commonwealth IT projects and IT programs.
- Identify the steps a Project or Program Sponsor must take in selecting a qualified Project or Program Manager to manage a Commonwealth IT project or program.

Note: For the purposes of this Standard, the term Project Manager is generally understood to mean either Project Manager or Program Manager. However, there is a section of this Standard pertaining exclusively with Program Managers.

Qualification of a Project Manager is not synonymous with certification. For the purposes of this Standard, a Project Manager is considered qualified if through knowledge and training, formal education, and project experience the Project Manager fulfills conditions that indicate they have the capacity to effectively manage an IT project in the context of the Commonwealth 's IT investment management framework.

## ***1.2 Adherence to Commonwealth Standards of Conduct***

As representatives of state agencies with authority and responsibility to manage significant Commonwealth resources, Commonwealth IT Project Managers must conduct themselves in a manner deserving of public trust. Specifically, IT Project Managers qualified to manage Commonwealth IT projects are expected to adhere to the Employee Standards of Conduct outlined on pages 2 and 3 of the Commonwealth Standards of Conduct. The Commonwealth Standards of Conduct can be found on the Human Resources Policy section of the Department of Human Resource Management (DHRM) website at <http://www.dhrm.virginia.gov/>.

## ***1.3 Commonwealth Project Management***

The Commonwealth Project Management (CPM) methodology defines the required agency processes and documentation for all Commonwealth IT projects as defined by the Commonwealth Project Management Standard. The use of CPM increases Commonwealth IT project success by promoting sound investment decisions, ensuring management commitment and oversight, implementing a best practice based project management methodology, and defining processes that measure and evaluate project value and success throughout the project lifecycle.

All Commonwealth IT Project Managers are required to follow the CPM methodology as established in the Commonwealth Project Management Standard (PM Standard.)

## **1.4 ITIM**

Information Technology Investment Management (ITIM) is a management process that provides for the pre-selection (identification), selection, control, and evaluation of business-need-driven IT investments across their lifecycles. ITIM uses structured processes to minimize risks, maximize return on investments, and support Commonwealth agency decisions to maintain, migrate, improve, retire, or obtain IT investments. ITIM is the basis for the Commonwealth's approach to technology management as described in the Commonwealth Technology Management Policy (CTM Policy).

All Commonwealth IT investments must successfully complete the ITIM Pre-select (Identification) and Select Phases before they are considered projects. A Project Manager is officially selected and assigned to the project during the CPM Project Initiation Phase.

## **1.5 Project Manager Selection and Training Stakeholders**

Project Manager Selection and Training stakeholders are the groups or individuals who have responsibility for Project Manager Selection or Project Manager Training activities, decisions, governance, or oversight. Each stakeholder has an important role in ensuring that Project Managers have the skill, training, and experience needed to effectively manage IT projects in the Commonwealth.

### **1.5.1 Secretary of Technology**

The Secretary of Technology (SoTech) designates specific projects as enterprise information technology projects, prioritizes the implementation of enterprise information technology projects, and establishes enterprise oversight committees to provide ongoing oversight for enterprise information technology projects.

### **1.5.2 Commonwealth Chief Information Officer (CIO)**

The Commonwealth Chief Information Officer (CIO), as established in the *Code of Virginia*, is an appointee of the Governor, and leads the Virginia Information Technologies Agency (VITA.) The CIO ensures that agency IT investments are developed and placed in operation using a disciplined, well-managed, and consistent process.

The role of the CIO in Project Manager Selection and Training is to direct the development of the Project Manager Selection and Training Standard, to review Project Manager qualifications, and approve the selection of IT Program Managers, and Project Managers assigned to Category 1, 2 and 3 IT Projects as defined in the Project Management Standard. The CIO may also grant a temporary waiver from the Project Manager qualification requirements if the project sponsor agrees that the Project Manager will meet the qualification requirements by a specific date.

### **1.5.3 Commonwealth Project Management Division (PMD)**

Under the direction of the CIO, the Project Management Division (PMD) implements an enterprise strategy for the effective and efficient management of information technology investments.

The role of PMD in Project Manager Selection and Training is to:

- Develop the Project Manager Selection and Training Standard for the CIO.
- Provide cost-effective Project Manager qualification training.

- Administer Project Manager qualification testing.
- Oversee the selection of Commonwealth IT Project Managers; and, when appropriate, recommend that the CIO grant a temporary waiver from the Project Manager qualification requirements if the Project Sponsor agrees to full compliance with the requirements by a specific date.

#### **1.5.4 Commonwealth Agencies**

Commonwealth agencies are the business owners of IT projects in the Commonwealth, and typically have supervisory responsibility over the IT Project Managers assigned to the projects that the agency sponsors.

The role of agencies in Project Manager Selection and Training is to select qualified IT Project Managers in compliance with the criteria identified in the Project Manager Selection and Training Standard. Supervisors of agency Project Manager candidates must validate the candidate's experience, training, and certification entries in the Project Manager Qualification Record.

#### **1.5.5 Commonwealth IT Project Managers**

Commonwealth IT Project Managers are individuals assigned by an agency to manage a temporary endeavor undertaken to create a unique IT product, service, or result. IT Project Managers are responsible and accountable for the performance of IT projects in the Commonwealth, and are evaluated based on their ability to use project resources to achieve project objectives.

The role of Commonwealth IT Project Managers in Project Manager Selection and Training is to be qualified to manage IT projects in the Commonwealth by meeting the minimum knowledge and training, formal education, and project experience requirements as identified in this Standard. Project Managers seeking to become qualified Commonwealth IT Project Managers must complete a Project Manager Qualification Record.

## 2. PROJECT MANAGER QUALIFICATION

### 2.1 Definition of Project Manager Qualification

Commonwealth Project Manager qualification is the assessment of a Project Manager's skill, training, and experience. Project Managers are qualified for specific projects based on the risk and complexity assessments of the specific project.

### 2.2 Project Categories

For the purposes of governance and oversight, projects that have an estimated cost in excess of \$250,000 are considered Commonwealth-level projects and are categorized in one of four categories, based on their CPGA assessment of risk and complexity, as defined in the Project Management Standard.

<b>Project Categories 1 - 4</b>				
		<b>Complexity:</b>		
		High	Medium	Low
<b>Risk:</b>	High	<b>1</b>	<b>2</b>	<b>2</b>
	Medium	<b>2</b>	<b>3</b>	<b>3</b>
	Low	<b>3</b>	<b>4</b>	<b>4</b>

Projects that have an estimated cost less than \$250,000 are considered Agency-level projects.

PMD, on behalf of the CIO, verifies that the project sponsor has selected a qualified IT Project Manager for their IT project based on the categories listed above.

### 2.3 Keeping Project Manager Qualifications Current

One's familiarity with Commonwealth Project Management methodology, procedures and requirements can become stale and outdated if not recently put into practice; therefore, there is a time aspect to CPM qualification.

Essentially, a Commonwealth Project Manager qualification must remain Up-to-Date, or it becomes dormant; in which case the project manager must renew the PM Qualification prior to assignment to a project. The Project Manager qualification training and tests remain current for 3 years after completion of the Commonwealth Project Manager Overview Class, (prior to January 1, 2016) or passing PM Qualification Exam – Level One, or the closeout date of a Commonwealth-level (Category 4, 3, 2, or 1) IT project in which the candidate was the designated Project Manager. Summarized in the decision statement below:

Commonwealth IT PM Qualification becomes dormant 3 years after:

1. Completion of the Commonwealth Project Manager Overview Class prior to January 1, 2016.  
  
Or, if applicable,
2. Successfully passing PM Qualification Exam – Level One.

Or, if applicable,

3. The closeout date of a Commonwealth-level (Category 4, 3, 2, or 1) IT project in which the candidate was the designated PM.

The PM must renew PM Qualification prior to assignment if qualification has become dormant.

It is not difficult to stay CPM Qualified indefinitely. Maintain an Up-to-Date Commonwealth IT PM Qualification by:

1. Serving as the designated PM of a Commonwealth-level IT project within the past 36 months.

Or, if 36 months elapse since performing Commonwealth PM duties,

2. Completion of (attending) the Commonwealth Project Manager Overview Class.

*Note:* Passing the PM Qualification Exam – Level One is required for candidates pursuing their first-time CPM Qualification after January 1, 2016; You are not required to re-take and pass the PM Qualification Exam if your qualification lapses.

## **2.4 Qualifications for Agency-level IT Projects**

Agency-level Project Manager qualifications:

Knowledge & Training: The Project Sponsor will give preference to selecting Project Manager candidates who:

1. Complete the Commonwealth IT Project Manager Overview Training within the past 3 years.

Formal Education: The Project Sponsor will give preference to selecting Project Manager candidates who:

1. Have an Associates or higher level degree in a management or technology discipline related to the project.

*Note:* The College Degree preference may be substituted with passing the PM Qualification – Level One Exam within the past 3 years.

Project Experience: The candidate must:

1. Have exhibited team building and leadership potential.
2. Have at least 1,500 hours of project team experience, which includes any position on a project team.

The Project Sponsor will give preference to selecting Project Manager candidates who:

1. Have experience or special qualifications in a functional or technical field related to the project's scope.

## **2.5 Qualifications for Category 4 IT Projects**

Category 4 Project Manager qualifications:

Knowledge & Training: Unless the candidate is a currently qualified Category 4, 3, 2 or 1 Project Manager, the candidate must:

1. Complete the Commonwealth IT Project Manager Overview Training, within the past 3 years.
2. Pass the PM Qualification – Level One Exam, within the past 3 years.

The Project Sponsor will give preference to selecting Project Manager candidates who:

1. Are a certified Project Management Professional (PMP) or a Certified Associate Project Manager (CAPM).
2. Complete the Commonwealth Technology Portfolio for Project Managers Training.

Formal Education: The Project Sponsor will give preference to selecting Project Manager candidates who:

1. Have a Bachelors or higher level degree in a management or technology discipline related to the project. Note that:
  - a. The College Degree preference may be substituted with passing the PM Qualification – Level Two Exam, within the past 3 years, and...
  - b. The College Degree preference may be substituted with being a Current Commonwealth-Level Project Manager.
2. Have experience or special qualifications in an applicable functional or technical field.

Project Experience: The candidate must:

1. Have exhibited effective team building, leadership, and communication skills.
2. Have at least combined 2,000 hours of successful project management experience from any of the following sources:
  - a. Project Manager on an Agency-level IT Project;
  - b. A member of the management team on a Category 1-4 IT Project;
  - c. Serving in a position of authority, directly participating in the management of an IT operations and maintenance (O&M) project.

The Project Sponsor will give preference to selecting Project Manager candidates who:

1. Have successfully performed as the Project Manager for at least one Category 4 or higher IT Project, or \$250,000 other-than-Commonwealth project.

## **2.6 Qualifications for Category 1, 2 and 3 IT Projects**

Regarding Knowledge & Training, and Formal Education, the requirements for Category 1, 2 and 3 IT Projects are the same, while Project Experience requirements differ across the three categories.

Category 1, 2 and 3 Project Manager qualifications:

**Knowledge & Training:** Unless the candidate is a currently qualified Category 3, 2 or 1 Project Manager, the candidate must:

1. Complete the Commonwealth IT Project Manager Overview Training, within the past 3 years.
2. Pass the PM Qualification – Level One Exam, within the past 3 years.
3. Pass the PM Qualification – Level Two Exam, within the past 3 years.

The Project Sponsor will give preference to selecting Project Manager candidates who:

1. Are a certified Project Management Professional (PMP).

*Note:* A certified PMP does not have to take or pass the PM Qualification – Level Two Exam.

2. Complete the Commonwealth Technology Portfolio for Project Managers Training.

**Formal Education:** The Project Sponsor will give preference to selecting Project Manager candidates who:

1. Have a Bachelors or higher level degree in a management or technology discipline related to the project.

*Note:* The College Degree preference may be substituted with passing the PM Qualification – Level Two Exam, within the past 3 years, and...

The College Degree preference may be substituted with being a currently qualified Commonwealth-Level Project Manager.

2. Have completed advanced project management training on a subject, such as:
  - a. Advanced Risk Management;
  - b. Advanced Project Metrics and Statistical Analysis;
  - c. Systems Development; Enterprise Architecture;
  - d. Financial Management for Projects and Programs; Strategic Planning;
  - e. Organizational Dynamics and Organizational Change Management
3. Have experience or special qualifications in an applicable functional or technical field.

**Category 3 Project Experience:** The Category 3 candidate must:

1. Have exhibited effective team building, leadership, and communication skills.
2. Have at least 3,000 hours of successful project management experience as a Project Manager on at least one IT project with a budget of at least \$250,000.

The Project Sponsor will give preference to selecting Project Manager candidates who:

1. Have successfully performed as the Project Manager for at least one Category 1, 2 or 3 IT Project, or \$1M other-than-Commonwealth project.

**Category 2 Project Experience:** The Category 2 candidate must:

1. Have exhibited effective team building, leadership, and communication skills.
2. Have at least 4,500 hours of successful project management experience as a Project Manager on at least one Commonwealth-Level IT project, or \$1M other-than-Commonwealth project.

The Project Sponsor will give preference to selecting Project Manager candidates who:

1. Have successfully performed as the Project Manager for at least one Category 1 or 2 IT Project, or \$1M other-than-Commonwealth project.

Category 1 Project Experience: The Category 1 candidate must:

1. Have exhibited effective team building, leadership, and communication skills.
2. Have at least 4,500 hours of successful project management experience as a Project Manager on multiple Commonwealth-level IT projects, or multiple \$1M other-than-Commonwealth projects.

The Project Sponsor will give preference to selecting Project Manager candidates who:

1. Have successfully performed as the Project Manager for at least one Category 1 or 2 IT Project, or \$1M other-than-Commonwealth project.

## **2.7 Qualifications for IT Program Manager**

The size, scope, cost, complexity and risk of an IT Program varies greatly; accordingly, the qualifications for IT Program Manager provide latitude to accommodate a particular scenario at the discretion of the Program Sponsor and Commonwealth CIO.

IT Program Manager qualifications:

Knowledge & Training: Unless the candidate is a currently qualified Category 3, 2 or 1 Project Manager, the candidate must:

1. Complete the Commonwealth IT Project Manager Overview Training, within the past 3 years.
2. Pass the PM Qualification – Level One Exam, within the past 3 years.
3. Pass the PM Qualification – Level Two Exam, within the past 3 years.

The Program Sponsor will give preference to selecting IT Program Manager candidates who:

1. Are a certified Project Management Professional (PMP).
2. Are a certified Program Management Professional (PgMP).

*Note:* A certified PMP or PgMP does not have to take or pass the PM Qualification – Level Two Exam.

Formal Education: The IT Program Manager candidate must:

1. Review the Program Management Standard training materials and discuss the standard requirements with a PMD Consultant.
2. Discuss the guidance available from the Program Management Guideline with a Project Management Division Consultant.

The Project Sponsor will give preference to selecting Program Manager candidates who:

1. Have a Bachelors or higher level degree in a management or technology discipline related to the project.

*Note:* The College Degree preference may be substituted with passing the PM Qualification – Level Two Exam within the past 3 years, and...

The College Degree preference may be substituted with being a currently qualified Commonwealth-level Project Manager.

2. Have completed advanced project management training on a subject, such as:
  - a. Program Management
  - b. Advanced Risk Management;
  - c. Advanced Project Metrics and Statistical Analysis;
  - d. Systems Development; Enterprise Architecture;
  - e. Financial Management for Projects and Programs; Strategic Planning;
  - f. Organizational Dynamics and Organizational Change Management
3. Have experience or special qualifications in an applicable functional or technical field.

Project and/or Program Experience: The Program Manager candidate must:

1. Have exhibited effective team building, leadership, and communication skills.
2. Have at least 4,500 hours of successful project management experience as a Project Manager on multiple Commonwealth-Level IT projects, or multiple \$1M other-than-Commonwealth projects.

The Project Sponsor will give preference to selecting Program Manager candidates who:

1. Have successfully performed as the Project Manager for at least one Category 1 or 2 IT Project, or \$1M other-than-Commonwealth project.
2. Have successfully performed as the Program Manager for at least one relevant IT Program.

**Qualification Comparison... at a Glance**

	Agency Level	Category 4	Category 3	Category 2	Category 1	IT Program
Team building, communication & leadership skills	<b>Must</b> show potential	<b>Must</b> have exhibited these skills				
Knowledge & Training	<b>Preferred:</b> Complete CPM Orientat'n	<b>Must</b> Complete CPM Orientation				
		<b>Must</b> Pass Level One Exam	<b>Must</b> Pass Level One Exam <b>Must</b> Pass Level Two Exam* <i>*(PMP does not need to pass Level Two Exam)</i>			
Formal Education (No Requirements, only Preferences)	<b>Preferred:</b> Assoc. Degree or Equivalent	<b>Preferred:</b> Bachelors Degree or Equivalent Experience				
		<b>Preferred:</b> Have experience or special qualifications in an applicable field				
Project Management Experience	<b>Must:</b> 1500 hrs, any project position	<b>Must:</b> 2000 hrs, various leader roles in a project	<b>Must:</b> 3000 PM hrs, any \$250K project	<b>Must:</b> 4500 PM hrs, CoVa project or >\$1M non-Cova	<b>Must:</b> 4500 PM hrs, multi-CoVa, or >\$1M non-Cova	<b>Must:</b> 4500 PM hrs, multi-CoVa, or >\$1M non-Cova

**2.8 Special Circumstance Regarding Project Manager Qualification**

In the scenario where a Project Manager is qualified for a certain category of project, but the project category is reassigned to a higher category for which the Project Manager does not hold the necessary qualification (for example, a Project Manager is qualified for, and assigned to, a Category 3 project, but sometime after project initiation the project is re-categorized as a Category 2 project, for which the Project Manager is not qualified): The Project Sponsor and Commonwealth CIO must assess the situation to determine if the current Project Manager seems capable of successfully managing the re-categorized project, mostly based on the historical performance of the Project Manager to date. The Project Sponsor and Commonwealth CIO retain the discretion to replace the Project Manager or to allow the current Project Manager to continue to serve in that capacity, citing an acceptable amount of additional risk to the project. Such a decision should be documented in a Change Control Request document, and archived in the Commonwealth Technology Portfolio (CTP).

**2.9 Project Manager Qualification Record**

The Project Manager Qualification Record (PMQR) presents a cumulative and concise summary of basic events in the IT Project Manager's career. The PMQR provides a means for the IT Project Manager to document their experience, training, and certification for

meeting Commonwealth qualification requirements, and for the IT Project Manager's supervisor to validate the entries. The PMQR also serves as the basis for reporting information on the qualification of an IT Project Manager to run Commonwealth IT Projects, and provides Project Sponsors with background information to assist them in Project Manager selection. IT Project Managers should update their PMQR annually, and a Project Manager candidate will not be considered qualified for assignment unless the PMQR has been reviewed and updated by the candidate within one year of being considered for assignment.

IT Project Managers, their supervisors, and upon request Project Sponsors can access PMQRs through the Project Manager Development Program section of the PMD website at <http://www.vita.virginia.gov/oversight/projects/>.

## **2.10 Steps to Project Manager Qualification**

Sequentially, the Project Manager candidate must complete the following procedure:

1. Create a PMDP-enabled VIM account:  
<http://vita2.virginia.gov/itTrain/pmDev/pmdpPegasus.cfm>
2. Complete Project Manager Qualification Record (PMQR)  
<http://www.vita.virginia.gov/oversight/projects/default.aspx?id=587>
3. PM candidate must have the supervisor validate PMQR.
4. Update PMQR information within the year leading up to being assigned as Project Manager for a project.
5. Complete the Commonwealth IT Project Manager Overview Training within the past 3 years.
6. Pass the PM Qualification – Level One Exam within the past 3 years.
7. Complete the Commonwealth Technology Portfolio for Project Managers Training once assigned to a project (optional for IT PgM).

## **3. PROJECT MANAGER TRAINING**

Project Manager training is the structured education of Commonwealth IT Project Managers in the processes, tools, and terminology used in managing projects. Commonwealth Project Managers are required to maintain accurate documentation of all their project management related training in their individual Qualification Record.

In general, there are two types of training, mandatory training and optional training. Mandatory training is required for all Project Managers and is directed toward Commonwealth specific information. Optional training is taken as necessary to acquire knowledge or develop skills that the Project Manager candidate needs to pass the knowledge test or to manage a unique project.

### ***3.1 Mandatory Commonwealth IT Project Manager Orientation Training***

Mandatory Commonwealth IT Project Manager Orientation Training class is designed to acquaint the Project Manager with the Commonwealth Project Management (CPM) methodology, the context in which Commonwealth IT projects are governed, the specific processes and procedures associated with IT project governance and oversight, and the Project Manager qualification requirements administered under the Commonwealth IT Project Manager Development Program (PMDP).

The Mandatory Commonwealth IT Project Manager Orientation Training class is a requirement for all Commonwealth-level IT Project Managers and IT Program Managers, and is a preference criteria for agency-level IT Project Managers. It covers the following subjects:

- IT Governance and Oversight
- IT Policies, Standards and Guidelines (PSGs)
- Project Manager Selection and Training
- Commonwealth Project Management (CPM) Methodology

The objectives set for Project Managers taking the mandatory Commonwealth IT Project Manager Orientation Training class include :

- Understand the value of the Commonwealth's IT governance and oversight model and recognize governance and oversight roles.
- Distinguish and apply PSGs that apply to the conduct of IT projects in the Commonwealth.
- Apply the Project Manager Selection and Training Standard and PMDP tools to individual project management development and qualification.
- Use the Commonwealth Project Management Standard to properly document a project through close out and post implementation review.

### ***3.2 Mandatory Commonwealth Technology Portfolio Training***

Mandatory Commonwealth Technology Portfolio (CTP) Training class is designed to instruct Project Managers on the IT Investment Management (ITIM) Process that the CTP supports, the steps for gaining access to the CTP, and the use of CTP navigation and forms during

each phase of the CPM methodology. The class is intended for all Project Managers who want to qualify to manage Commonwealth-Level IT projects.

The Mandatory CTP Training is typically completed once a Project Manager is assigned to a project, however it can be completed prior to project assignment. The class covers the following subjects:

- Overview of the ITIM Process
- Obtain a CTP Account
- CTP Organization, Navigation, and Basic Functionality
- Relation of CTP to the ITIM Phases
- Review of CTP Forms related to the CPM Methodology

The objectives set for Project Managers taking the Mandatory CTP Training class are to:

- Understand the process required to obtain a CTP account.
- Identify and review the ITIM and CPM information compiled on the project prior to Project Manager assignment.
- Use the CTP to manage a project through each of the CPM Phases.

## **4. PROJECT MANAGER QUALIFICATION TESTING**

The COV ITRM Project Manager Selection and Training Standard for Project Managers requires the candidate to successfully pass two qualification exams – Level One and Two. Project Management Professional (PMP) certification supersedes the requirement to pass Level Two, however all project managers who are not currently qualified must pass Level One within the past 3 years.

The Commonwealth Project Manager Qualification Level One Exam is required for all Project Managers who manage Commonwealth IT projects from Category 1 – 4. The quizzes are based on the Commonwealth methodology outlined in the COV ITRM Project Management Standard CPM 112-03.2 and COV ITRM Project Manager Selection and Training Standard CPM 111-02. The candidate must successfully complete Level One before taking the Level Two Exam.

The exams are provided over the Internet using a secure Learning Management System (LMS). The quizzes are open book and timed. Each exam is broken down into sections called quizzes. Each quiz has 16 multiple choice questions pulled randomly from a question pool. Project Manager candidates must achieve a passing score of at least 75% for each quiz, and then also achieve an overall exam passing score of at least 75% to meet the qualification standard.

Level One Exam includes 5 separate quizzes:

1. Project Manager Qualification and Selection
2. Project Initiation
3. Project Planning
4. Project Execution and Control
5. Project Closeout

The Commonwealth Project Manager Qualification Level Two Exam is required for Project Managers who manage Commonwealth IT projects from Category 1 – 3, and who do not possess a current PMP certification. The quizzes are based on A Guide to the Project Management Body of Knowledge (PMBOK Guide) 5th Edition and practical experience. The candidate must successfully complete Level One Exam before taking the Level Two Exam.

The exam is provided over the Internet using a secure Learning Management System (LMS). The quizzes are open book and timed. Each exam is broken down into sections called quizzes. Each quiz has 16 multiple choice questions pulled randomly from a question pool. Project Manager candidates must achieve a passing score of at least 75% for each quiz, and then also achieve an overall exam passing score of at least 75% to meet the qualification standard.

Level Two includes 8 separate quizzes:

1. Project Scope Management
2. Project Time Management
3. Project Cost Management
4. Project Quality Management
5. Project Communication Management
6. Project Risk Management

7. Project Procurement Management
8. Project Stakeholder Management

The following is a list of the recommended study material for Project Manager candidates:

Level One Exam:

COV ITRM Project Manager Selection and Training Standard CPM 111-02

COV ITRM Project Management Standard CPM 112-03.2

Level Two Exam:

A Guide to the Project Management Body of Knowledge (PMBOK Guide) 5th Edition

## ***Registration and Testing Process***

The Community College Workforce Alliance at Reynolds Community College is responsible for registration, maintenance and administration of the Level One and Two exams. The exams are provided over the Internet using a secure Learning Management System (LMS) at the Virginia Community College System. The tester is required to read and agree to an honor code before taking the exams. The process is as follows:

1. Candidate registers for the exam through the Community College Workforce Development Office. You will be charged a \$90.00 testing fee.
2. Candidates will receive a confirmation email with instruction language. The instruction language will include login information and link to testing site.
3. Candidate takes exam – quizzes for Level One/Two – score is immediately available to the tester on the final page.
4. Candidates that meet the minimum requirement on every quiz of 75% can print a certificate after completing the exam.
5. Candidates that are not successful need to contact CCWA to register for the quiz or quizzes retake. You will be charged a \$45.00 retake fee.
6. Final scores will be submitted to the Commonwealth Project Management Division for entry into your PM qualification record.

### ***4.1 Project Manager Qualification Exam Level One***

Level One objectives cover project activities that must be performed in the same sequence on most projects, and may be repeated several times during the project. The Level One Knowledge Standards identify the minimum competencies that should be possessed by all Commonwealth Project Managers concerning these activities. Five related competencies are presented under the following headings:

#### **4.1.1 Project Manager Qualification and Selection**

The project manager candidate will be able to apply the:

- Commonwealth methodology for Project Manager qualifications.
- Roles and responsibilities of the designated PM as defined in the standard.

### **4.1.2 Project Initiation**

The Project Manager candidate will be able to apply the:

- Commonwealth methodology for initiation of projects.
- Research and formalization of the CTP forms required for project initiation.

### **4.1.3 Project Planning**

The Project Manager candidate will be able to apply the:

- Commonwealth methodology for detail planning of projects.
- Requirements for CTP forms and project document related to detail planning.

### **4.1.4 Project Execution and Control**

The Project Manager candidate will be able to apply the:

- Responsibilities of a Project Manager during project execution.
- Key control issues and the techniques employed to manage them.
- Use of the typical measurements and calculations to evaluate project progress.
- Frequency of status reporting (CTP) based on project category identified in the standard.

### **4.1.5 Project Closeout**

The Project Manager candidate will be able to apply the:

- Tasks associated with project closeout.
- Schedule and plans that support project closeout.
- Collection and documentation of lessons learned.
- Formalization of the project closeout report and the post implementation review.

## ***4.2 Project Manager Qualification Exam Level Two***

Level Two objectives cover project activities that are performed intermittently throughout the project to support the Level One processes, depending on the nature of the project.

The eight Level Two related competencies are presented under the following headings:

### **4.2.1 Project Scope Management**

The Project Manager candidate will be able to:

- Convey the relationship between scope and project failure.
- Communicate how projects are initiated and selected.
- Outline activities, inputs, and outputs of scope initiation, planning, definition, verification.
- Formulate a project charter and work breakdown structure (WBS).

### **4.2.2 Project Time Management**

The Project Manager candidate will be able to:

- Establish the policies, procedures, and documentation for planning, developing, managing, executing, and controlling the project schedule.
- Provide guidance and direction on how the project schedule will be managed.
- Examine the different types of cost estimates and methods for preparing them.
- Calculate earned value as it applies to time management.

### **4.2.3 Project Cost Management**

The Project Manager candidate will be able to:

- Convey the importance of project cost management.
- Apply basic project cost management principles, concepts, and terms.
- Examine the different types of cost estimates and methods for preparing them.
- Calculate earned value as it applies to cost management.

### **4.2.4 Project Quality Management**

The Project Manager candidate will be able to:

- List and explain common principles of quality management (QM).
- List, distinguish between, and describe the processes and tools of Quality Planning, Assurance, and Control.
- Apply QM principles to Project Management.

### **4.2.5 Project Communication Management**

The Project Manager candidate will be able to:

- List and describe project communication processes, inputs, outputs, and tools.
- List and apply project communication skills and methods.
- Compare methods of information distribution.
- Explain the purposes of administrative closure.

### **4.2.6 Project Risk Management**

The Project Manager candidate will be able to:

- List and describe risk management planning, identification, analysis, response planning and monitoring and control on a project .
- Apply best practices to increase the probability and impact of positive events and decrease the probability and impact of negative events .

### **4.2.7 Project Procurement Management**

The Project Manager candidate will be able to:

- List and describe activities, inputs, outputs, and tools of the 5 procurement management processes.
- Describe and contrast the types of contracts.
- Define and describe: statement of work (SOW), request for quote (RFQ), request for proposal (RFP).
- List potential mistakes in managing procurement contracts and list guidelines for preventing them.

#### **4.2.8. Project Stakeholder Management**

The Project Manager candidate will be able to:

- Identify the people, groups, or organizations that could impact or be impacted by the project.
- Analyze stakeholder expectations and their impact on the project.
- Develop appropriate management strategies for effectively engaging stakeholders in project decision and execution.

## **5. PROJECT MANAGER SELECTION**

Selecting a Project Manager well-suited to manage an IT project is one of the most important actions a Project Sponsor can take to ensure the IT project's success. In some cases, the Project Sponsor will temporarily assign a Project Manager to an IT project prior to the beginning of the Project Initiation Phase. The temporary Project Manager may subsequently manage the entire project; however, a Project Manager is not officially selected for an IT project until the Project Manager selection steps outlined below are complete.

Qualification and selection of a Project Manager is required prior to the submission of the Project Charter and supporting documents seeking Project Initiation Approval (PIA). The Project Manager must be either an employee of the Commonwealth or a consultant employed by the Commonwealth and qualified in accordance with the Project Manager Selection and Training Standard. The level of that qualification will vary by project category.

The following steps may be used in the Project Manager selection process, and are advisory in nature, not requirements:

### ***5.1 Identify Project Manager Capabilities Needed for a Successful Project***

Based on the information gathered in the Investment Business Case (IBC) and the CPGA Pre-Select Investment Analysis, the Project Sponsor documents the behavior, skills, training, and experience that will be needed to successfully manage the project in a job description.

### ***5.2 Form a Project Manager Candidate Pool***

The Project Sponsor takes the following steps to form a pool of Project Manager candidates from which the Project Manager will be selected.

1. Collect Candidates—The Project Sponsor collects a list of qualified Project Manager candidates whose behavior, skill, training, and experience potentially meet or exceed the requirements documented in the job description. The Project Sponsor may list only agency Project Managers if those Project Managers are considered qualified candidates. Candidate qualification and references must be checked.
2. Form Candidate Pool—The Project Sponsor reduces the number of Project Manager candidates to only those qualified Project Managers who give the project an excellent opportunity for success. The Project Sponsor may form the Project Manager Candidate Pool using only agency Project Managers who are considered qualified candidates.

If a Project Manager is temporarily assigned to the project, and is in the Project Manager candidate pool, the temporary Project Manager may not manage this step.

### ***5.3 Interview Project Manager Candidates***

The Project Sponsor will interview the candidates in the Project Manager Candidate Pool. The interview questions should be designed to identify which candidate gives the project its best opportunity for success. If confidential procurement information must be shared with

the candidate in order to conduct an effective interview, the candidate must sign a non-disclosure agreement.

All key project stakeholders should have an opportunity to participate in the interview process. The PMD Project Management Specialist assigned to the agency must be notified of any interview with a Project Manager who will be assigned to a Category 1, 2 or 3 IT Project. The PMD Project Management Specialist assigned to the agency has the option to participate in candidate interviews in order to confirm the Project Manager's qualifications, and to better support the Project Manager once they are selected.

If a Project Manager is temporarily assigned to the project, and is in the Project Manager Candidate Pool, the temporary Project Manager may not manage the interview process.

#### ***5.4 Select a Project Manager***

Based on the behavior, skill, training, and experience of the interviewed candidates, the quality of the candidates' references, and the results from the candidate interviews, the Project Sponsor selects the qualified Project Manager that gives the project the best opportunity for success. For Category 1, 2 or 3 IT Projects, the CIO must approve the selection of the Project Manager.

If a Project Manager is temporarily assigned to the project, and is in the Project Manager candidate pool, the temporary Project Manager may not manage the selection process.

#### ***5.5 Receive Project Manager Selection Approval***

The Project Manager is appointed by the Project Sponsor and approved by the Chief Information Officer, who approves that selection as part of Project Initiation Approval.

Once the Project Manager selection is approved, the Project Sponsor ends the Project Manager Selection process and facilitates the transition of the Project Manager into the assigned project management role.

#### ***5.6 PMD Steps to Assigning a Project Manager***

Sequentially, the Project Manager candidate must complete the following procedure:

1. Verify that PMQR has been updated by the PM candidate within the past year.
2. Check for the end date (project completion date) of the candidate's most recent Commonwealth-level IT Project.
3. If project completion date is within 3 years, CPM qualification is Up-to-Date / Current; then...
4. Check PM experience to ensure it satisfies requirements for the project category in question.
5. If PM candidate is NOT currently qualified, follow "Steps to Project Manager Qualification" in section 2.10 of this standard; then, once the candidate has completed all qualification steps...
6. Check PM experience to ensure it satisfies requirements for the project category in question.