BEACON HR/PAYROLL IMPLEMENTATION PROJECT QUALITY MANAGEMENT PLAN

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1. INTRODUCTION

This Quality Management Plan provides the Beacon HR/Payroll Implementation PMO with the vision, approach, resources, roles/responsibilities and timing for performing project quality management.

1.1. Plan Objectives/Purpose

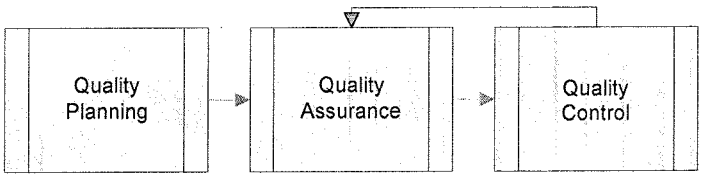
This Quality Management (QM) Plan defines objectives for performing the activities of the project at performance levels sufficient to create the project's products and services. It verifies that the Beacon HR/Payroll Implementation Project meets the agreed upon objectives as discussed in the Project System Integration Agreement. More specifically, this Plan provides:

- The quality lifecycle and corresponding activities
- The Beacon HR/Payroll Implementation Project's roles and responsibilities pertaining to quality management
- The quality management training requirements for the project members
- The integration of the quality management with other major management processes for the project.

It is not within the scope of this plan to define the testing and acceptance criteria for the system developed. These criteria are managed in the project's test planning documents.

1.2. Quality Management Lifecycle

Figure 1 - Quality Management Lifecycle



The Quality Management Lifecycle includes activities to:

- **Plan for Quality:** The State and BearingPoint define the quality approach, criteria, and baseline
- **Assure Quality:** The Project Management Team executes the quality activities, including continuous improvement, to make certain the project achieves the goals
- **Control Quality:** The Project Management Team examines specific project outcomes in order to determine achievement of the overall project goals.

1.2.1. ProvenCourse℠

BearingPoint's ProvenCourse delivery framework facilitates the integration of BearingPoint's solution implementations, methodologies, and delivery tools. ProvenCourse provides:

- A single delivery framework to address specific needs locally and around the world

- A single framework to enable integration of the BearingPoint solutions
- A set of repeatable delivery assets that will improve accuracy and accelerate delivery.

The framework defines five phases and eight work streams covering the full engagement life cycle and a single Manage work stream encompassing all aspects of engagement management. The Manage work stream defines activities, techniques, and deliverables that are consistent with management processes supported by the Project Management Institute (PMI) and other project management-based standards. Within the Manage work stream are the program management, project management, quality management, and change management sub-work streams on which this document bases its Quality Management practices.

1.2.2. Capability Maturity Model Integration (CMMI)

Principles based on SEI's Capability Maturity Model Integration (CMMI) are included in this Quality Management Plan. CMMI offers a framework of project controlling processes possessing recommended characteristics, allowing organizations to improve their project delivery performance. To support BearinPoint's adoption of CMMI® Level 3 and the use of these principles within BearingPoint projects, BearingPoint possesses a group of CMMI experts, including SEI-authorized lead appraisers, dedicated to internal process improvement.

1.2.3. Quality Management Lifecycle Activities

The Beacon HR/Payroll Implementation Project PMO will coordinate the execution of several key activities listed below in each lifecycle phase; refer to Section 3 for a more detailed description of the activities.

- **Quality Planning**
  - Establish the Quality Approach
  - Define Quality Management Processes
  - Create the Quality Metrics and Checklists
- **Quality Assurance**
  - Deliver Quality Training
  - Conduct Quality Audits and Evaluations
  - Conduct Continuous Improvement
- **Quality Control**
  - Perform Inspections

1.3. Success Criteria

Successful execution of Quality Management offers the following benefits:

- A clear and consistent quality process leading to less rework and fewer project issues
- Measurements for quality criteria and a quality baseline

- Favorable quality reviews, as well as successful closure of action items that result from the reviews
- High approval rate for deliverables by the State
- High level of overall client satisfaction.

1.4. References

The Beacon HR/Payroll Implementation Project Quality Management Plan references content or theory from, or makes reference to, the following sources:

- A Guide to the Project Management Body of Knowledge. Third ed. Newtown Square: Project Management Institute, 2004
- Chrissis, Mary Beth. CMMI - Guidelines for Process Integration and Product Improvement. Boston: Pearson Education, 2003.

1.5. Assumptions to Quality Management

The Beacon HR/Payroll Implementation Project accepts the following assumptions as true without guarantee or demonstration:

- The State will collaborate with BearingPoint to meet the quality review criteria as stated in the Project System Integration Agreement. State resources will provide a review response within the time allowed by the project's Contract
- The State will allocate the necessary skilled personnel to participate in quality management activities. Moreover, the State involvement will include timely access to the State personnel at all levels of the State organization to the extent necessary
- The State and BearingPoint will participate in all QM training necessary to execute the defined quality management activities
- The State will provide the resources necessary to support BearingPoint in applying quality management principles based on CMMI® Maturity Level 3.

1.6. Constraints to Quality Management

The project team will be constrained in its ability to effectively manage quality if the following conditions exist:

- The State is unable to support CMMI® Maturity Level 3 as a basis for managing project quality
- The State and BearingPoint are unable to define the scope of deliverables in the detail needed to support the quality acceptance criteria for project deliverables.

1.7. Risks to Quality Management

Risks to managing project quality will be managed according to the Beacon HR/Payroll Implementation Project Risk Management Process. The following are potential risks to effective quality management and thus should be monitored throughout the course of the project:

- Late or incomplete implementation of quality management tools and other quality management infrastructure (such as lack of supporting personnel and other project management processes linked to quality management)
- Lack of or insufficient buy-in and ongoing support by Beacon HR/Payroll Implementation Project executive leadership
- Re-shifting of project resources away from quality management
- Lack of sufficient training of the project team on quality management techniques.

1.8. Document Control

As a living document, the PMO will review this Plan as new project-related events and issues present themselves, revising it to maintain its stated objectives as a basis for project quality.

This management plan shall be reviewed whenever there is a significant change in the project's scope, in the size of the team, funding availability, changes to supporting tools, and other changes of that nature. If any of these factors or situations arise, the PMO will enhance this document accordingly.

2. RESOURCE REQUIREMENTS

The following sections provide the roles and responsibilities as well as the training requirements for managing quality on the Beacon HR/Payroll Implementation Project.

2.1. Roles and Responsibilities

All members of the Project Management Team must support the project team's adherence to the processes and procedures established in the Quality Management Plan. Regardless of role or task objective, it is critical that all project members are aware of their effect on quality management to help ensure the successful implementation of the system. The Roles and Responsibilities section ensures there are people available, accountable, and with the necessary skills and expertise to perform the processes required by this project.

The following table summarizes the role types and corresponding responsibilities pertaining to the Beacon HR/Payroll Implementation Project Quality Management Plan.

Role	Description of Role/Responsibilities
State Executive Management	• Oversee the State's review and acceptance of quality management processes. • Support all members of the project team in performing the processes. • Ensure that business decisions resulting from quality reviews are timely.
Project Stakeholders and Customers	• Participate in quality reviews as requested. • Participate in pertinent solution development activities (requirements, design, testing) as required to achieve the project objectives.
State Program Director	• Review and accept the quality review criteria for approving project deliverables. • Facilitate the availability of State personnel to participate in quality reviews and document review / approvals.
BearingPoint Project Manager	• Oversee the inclusion of quality management activities within the project schedule as well as the execution of these activities. • Serve as an escalation point to resolve issues related to quality and support the escalation of quality related issues to higher levels, e.g., State Program Director and/or State Executive Management. • Oversee all quality reviews and participate in these reviews as required. • Provide oversight to the closure of corrective actions arising from quality reviews.
Project Quality Manager	• Provide overall leadership of quality management activities, including managing quality reviews, reporting the results of these reviews, and overseeing follow-on corrective activities. • Schedule evaluations of processes and deliverables / work products. • Review project processes. • Audit process artifacts. • Document deviations. • Track and elevate non-compliance issues to the BearingPoint Project Manager or other senior management (e.g., Program Director) as appropriate.

Role	Description of Role/Responsibilities
Team Leads	• Hold project members accountable for performing quality management activities that relate to their role.
Team Members	• Understand the quality standards, objectives, and processes that apply to their work. • Perform all necessary activities in support of overall quality management.
PMO	• Track documented deviations to completion. • Update the Quality Management Plan and maintain the processes and tools. • Plan for and track the execution of quality management activities under the guidance of the Project Quality Manager and BearingPoint Project Manager • Provide evidence of EVM process effectiveness and efficiency for input into Quality Reviews and respond to any issues related to EVM process improvement

2.2. Training Requirements

Adequate training provides a common base of quality management understanding across the project team. In the table below, the project member training matrix documents the quality training required to support the delivery of the Beacon HR/Payroll Implementation Project. The Beacon HR/Payroll Implementation Project Quality Manager is responsible for ensuring that each project member has training to sufficiently support the policies and objectives defined within this Quality Management Plan. In addition, the Quality Manager will maintain and update the matrix as needed.

Role	Required Skills	Required Training
State Program Director **State Deputy Program Director**	• Understand and participate in quality planning, quality assurance, quality control, and continuous improvement	• Beacon HR/Payroll Implementation Project Quality Management Processes and Procedures
BearingPoint Project Manager **PMO Lead and Staff** **Team Leads** **Team Members**	• Understand quality planning, assurance, and control as well as continuous improvement	• On-line CMMI coursework (e.g. CMMI 101), or equivalent for subcontractors, as necessary to comply with CMMI® requirements that support specific key process areas and responsibilities • Internal project management tool training – Microsoft EPM Solution • Document Management.

2.3. Other Contributing Groups

2.3.1. BearingPoint Senior Quality Assurance Team

BearingPoint's Beacon HR/Payroll Implementation Project Managing Director along with a designated Managing Director for Quality from BearingPoint's State, Local Government and Higher Education Practice comprise the BearingPoint Senior Quality Assurance Team. These two executives will provide their expertise and years of experience working in state and local government projects. Their role is to evaluate overall project performance on a regular basis to provide confidence to all stakeholders that the project achieves relevant BearingPoint quality standards and expectations. This team is not formally involved in the day-to-day activities of the project, but acts in an advisory capacity to achieving project objectives.

2.3.2. BearingPoint Risk and Quality Management Team (RQM)

The RQM Managing Directors, together with Corporate RQM professionals, conduct project reviews to support the project management team in identifying issues before they can adversely affect project cost or schedule. These reviews focus on mainly on client satisfaction and the project's financial performance. They also help the team with quality risk mitigation plan development. RQM reviews support BearingPoint's corporate RQM objectives, which are similar to the Quality Management Plan for the Beacon HR/Payroll Implementation Project. Additional information on these reviews is provided in Section 3.2.2.3 that follows.

2.3.3. Engineering Process Group (EPG)

The EPG includes experienced process improvement Program Managers and SEI-authorized lead appraisers. The EPG will serve as a resource to the project team supporting the planning for and execution of quality management practices based on SEI CMMI Level 3.

3. QUALITY MANAGEMENT APPROACH

The following sections describe the approach for providing quality planning, assurance, and control throughout the project.

3.1. Quality Planning

3.1.1. Establish the Quality Approach

The Quality Manager will obtain any existing State quality policies, the Request For Proposal, any additional project requirements, and the active WBS to assist in finalizing development of this Beacon HR/Payroll Implementation Project Quality Management Plan. To the extent appropriate, its quality policies will include the team's quality assurance (e.g. type and frequency of audits, etc.) and control (e.g. measurement tools to utilize) activities during the project, as well as expected quality performance measures.

The Project Management Team shall consider any Office of the State CIO quality requirements affecting the deliverables when creating the quality approach and criteria for establishing any project baseline.

After gaining State agreement on the Quality Management approach and criteria for baselines, the Project Management Team will incorporate the quality management activities and milestones into the project schedule, so that project members can accommodate for any additional labor, expense, time, etc. necessary to achieve the defined quality objectives. In addition, the BearingPoint Project Manager will incorporate any updates to the Quality Management Plan as needed.

3.1.2. Create the Quality Metrics and Checklists

Once the Project Management Team has defined the quality performance objectives, they create the quality metrics and checklists necessary to measure the compliance of project product and services against the Project System Integration Agreement. For instance, a Project Management Team may create a 'Go-Live and Support Preparation Checklist" to increase the probability of a successful product rollout and cutover. Quality metrics should possess specificity to the item for adequate measurement.

3.1.3. Perform Process Improvement Planning

The Quality Management Plan describes how the Project Management Team will review the various project processes in order to derive improvement to the project management processes.

3.2. Quality Assurance

3.2.1. Perform Quality Training

Per the Quality Training Plan, created from the quality planning activities, the Quality Manager ensures the delivery of all necessary quality training.

3.2.2. Weekly Status Meetings

As part of the Weekly Status Meeting, the BearingPoint Project Manager will review adherence to quality standards and will discuss any quality issues discovered by the project's Quality Manager. The quality topics at these meetings can include:

- Review of the meeting agenda and the minutes from the previous week, to promote addressing all open action items from previous meeting's agenda
- Review of the issue and risk reports to check the corresponding responsible party is addressing resolution in a timely manner
- Discussion of status of deliverable reviews initiated since the previous meeting.

3.2.3. Perform Quality Reviews and Audits

The project receives several types of periodic quality audits throughout the life of the project. The goal of a quality audit is to provide an objective review of the work performed in order to ensure meeting the project's quality objectives. In addition, all reviews should include activities for recommending and correcting deficiencies that are outside tolerances of the defined acceptance criteria.

The following sections list the quality audits or reviews that the Project Management Team will perform.

3.2.3.1.1. Project Launch Review

Project Quality Manager will conduct a Project Launch Review within 60 days from the start of the HR/Payroll Implementation Project. By identifying project risks early in the engagement, the BearingPoint Project Management Team will work with the State to mitigate them to minimize, or eliminate their effects on the project. The primary objectives of the Launch Review are:

- Assist engagement management by clearly defining scope and deliverables, which reduce the need for time-consuming clarifying meetings and scoping sessions
- Support a quick and productive start to the engagement by confirming the appropriate processes are in place for reporting and communications, planning, controlling, resolving issues and monitoring changes
- Help the engagement management team to identify issues before they can adversely affect project cost or schedule.

3.2.3.2. Phase Reviews

The BearingPoint Quality Manager will also conduct Phase Reviews at the end of the Blueprint, Realization, Final Prep and Go-Live & Support Phases, to see that the deliverables passed quality control assessments and that project members executed all quality processes. As part of the Phase Reviews, the Quality Manager will:

- Review selected project files and deliverables
- Confirm the appropriate responsible person recorded and resolved all related issues and risks
- Review the project plans and interview corresponding project members as needed.

Once the review is complete, the Quality Manager develops a Phase Review report and conducts a briefing to the BearingPoint and HR/Payroll Implementation Project Management Team. The report consists of the scope and objectives of the review, the review approach and participants, the review findings, and the review recommendations. These reviews will be conducted in conjunction with the Deliverables Verification and Signoff activity that occurs at the end of each phase.

The Project Management Team will then execute the improvement actions to project processes.

3.2.3.3. Quality Assurance Program (QAP) Reviews

Discussed previously in Section 2.3.2, the QAP Reviews conducted by BearingPoint's RQM Group are internal BearingPoint reviews that support engagement teams by identifying project performance and engagement issues that could negatively affect BearingPoint's success. As stated previously, a BearingPoint Managing Director, within BearingPoint's RQM Department, performs the QAP reviews. They will be conducted at the end of the Business Blueprint and Final Prep Phases of the project.

It is beneficial that the State participate in the QAP review process, as they will directly benefit from any quality improvement activities that result from the reviews. However, the BearingPoint Managing Director will communicate the results directly to the BearingPoint Project Management Team. In the QAP review, the BearingPoint Managing Director will:

- Solicit input directly from HR/Payroll Implementation Project leadership on the effectiveness of BearingPoint's work on the project
- Review key reports, such as status reports, issue and risk logs, key communications, and engagement contract
- Produce a QAP report with findings and recommendations.

From a functional standpoint, these reviews focus on the following four key areas:

- Contract Management
- Financial Performance
- Engagement Management
- Technical Performance.

The output from the QAP Reviews is an internal BearingPoint report and not provided to the State. However, the project team will record the completion of the Reviews in the weekly status report and in the Project Schedule.

3.2.3.4. SAP Reviews

At the request of the State, SAP may request reviews from SAP. These reviews will provide an independent and objective overview of the implementation project, identify risks to the project goals and recommend appropriate corrective action. The scope of the SAP reviews will be to investigate the application, technical and project management, IT infrastructure, organizational change management, sustained support and benefits achievement areas of the implementation.

3.2.3.5. CMMI® Process Reviews

The BearingPoint Software Engineering Process Group will conduct at least one CMMI® Process Review of all project processes and resulting artifacts against of CMMI Maturity Level 3 goals. The Quality Manager will share results from this review with the BearingPoint Project Management Team.

The BearingPoint CMMI Process Review is not a formal *SEI appraisal* for achieving CMMI compliance. The purpose of the review is to help BearingPoint achieve CMMI Level 3 compliance of all of its Public Services projects in accordance with its strategy for quality improvement. There is a possibility, however, that the Beacon HR/Payroll Implementation Project could be selected for a formal SEI appraisal to support the compliance of BearingPoint's Public Services practice with CMMI Level 3.

3.2.3.6. Deliverables Review Process

The State and BearingPoint Project Management Team will use the deliverable acceptance criteria detailed in Attachment A of the Project System Integration Agreement used to determine when each major deliverable is complete and correct. The Quality Manager will oversee the execution of a review process to evaluate the deliverables against these criteria before the State formally approves the deliverable.

3.2.4. Implement Continuous Improvement

The BearingPoint Quality Manager will examine the project's processes and deliverables to isolate possible problem sources and locate opportunities for improvement. Potential corrective actions to reduce deviations from quality criteria and remove non-compliance issues could include:

- Rework of deliverables
- Review of standards or guidelines in order to revise portions of it is inadequate for the work being performed
- Changes in resource allocation
- Providing additional training for team or individual members
- Clarification of ambiguous tasks
- Schedule change
- Requirements change.

The BearingPoint Quality Manager will review all corrective actions with regard to their potential impact to schedule, budget, groups, and affected individuals. Assignment of corrective action ownership will vary depending on the issue / work stream as governed by the issue management process. However, the Quality Manager is ultimately responsible for tracking and managing deviation and non-compliance issues.

If such a review identifies that a Quality criterion for a process is not achievable under the limits of the project's defined scope then the criterion should be changed, a Change Request will be issued to revise the Project System Integration Agreement.

3.3. Quality Control

3.3.1. Perform Quality Control

Metrics provide the quantitative means to analyze project data, turning it into information useable for managing project progress. As mentioned in the Quality Planning activities, the Project Management Team defines the metrics used to measure the quality of the project's processes and deliverables. Once project execution begins, the Project Management Team is responsible for gathering the quality measures needed to verify that deliverables are of acceptable quality and that they meet the completeness and correctness criteria. Please note the BearingPoint Quality Manager is ultimately responsible for collecting the defined quality measures.

4. PROCESS INTEGRATIONS

This section defines how the performance of other project management processes relies on, or is influenced by, the managerial objectives, activities, and deliverables defined in this Quality Management plan. The Project Manager must analyze and consider the effects created on other process areas before making changes to the Quality Management Plan.

4.1. Scope Management

Quality Management focuses on scope verification within the scope management process. While the scope validation processes performed as an inherent part of quality management focus on the *correctness* of deliverables, scope verification is concerned with deliverable *acceptance*.

Attachment A of the System Integration Agreement defines the acceptance criteria for each deliverable. The project's Quality Management approach should ensure that the project's processes are sufficient to achieve the production of these deliverables to meet the criteria.

As mentioned earlier in the Quality Planning section, the Project Management Team will need to update the project schedule with quality management activities after finalizing the quality approach.

4.2. Change Control

Quality reviews may reveal issues that require changes to project scope. Moreover, these issues could involve the need for additional project management rigor or an addition, modification, or elimination of a product's system function. In such cases, project members must follow change processes prescribed in the *Scope Change Control Process*.

4.3. Schedule Management

One must expect that at times the quality reviews will highlight deviations from established quality standards, accompanied by the need to implement corrective change. Project management discipline requires that applying project resources to implement corrective change, whether it is directed toward a project deliverable or a management process, possibly require adjusting the project schedule and reallocating resources within the context of the project schedule. Such schedule management would allow the Project Management Team to assess the impact of the additional work on the overall schedule.

4.4. Risk Management

The Beacon HR/Payroll Implementation Risk Management Plan defines the processes and tools for managing project risk. Quality reviews also assess the project team's effectiveness at managing project risk. Quality reviews may reveal new project risks. Opportunities could also arise through quality assurance execution to improve upon the Project Risk Management processes. In any of these cases, the Project Management Team would need to update the Project Risk Management Plan and communicate the changes to the affected project members.

4.5. Communications Management

In order to ensure effective quality management, successful communication is critical. Any project member participating in quality management activities must completely familiarize themselves with the Project

Communications Plan regarding the manner in which project standards for communication impact quality activities. Key communication activities that occur as part of quality management include:

- Communication planning and execution help drive effective quality review sessions
- Communication of quality review results and the effects of actions taken
- Identification of the document management processes which is key to storing, updating, and making accessible quality management documents.

Opportunities could also arise, as a result of quality assurance process execution, to improve upon Communications Management. In such cases, the Project Management Team would need to update the Project Communications Plan and relay the changes to the affected project members.

4.6. Financial Management

Assessing the effectiveness of the financial management processes for the Beacon HR/Payroll Implementation Project will be an integral part of quality management. In addition, as with project schedules, the Project Management Team will need to update financial plans to reflect additional work that results from quality and deliverable reviews. Strict adherence to processes defined in the project financial management processes will be required to achieve cost performance expectations.

As with the other plans, opportunities could also arise as a result of quality assurance process execution to improve upon Financial Management. In such cases, the Project Management Team would need to update the project financial management processes and tools and relay the changes to the affected project members.