**Project Resource Management, PMBOK 6th Edition**

Michael D. Harper, Ph.D.

*“Project resource management includes processes to identify, acquire and manage resources needed for the successful completion of the project.”*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Project Resource Management** | **Process Groups** | | | | |
|  | **Major Processes** | Initiating | Planning | Executing | Monitoring &  Controlling | Closing |
| 🡪 | 1. Plan Resource Management |  | 1 |  |  |  |
|  | 2. Estimate Activity Resources |  | 2 |  |  |  |
| 🡪 | 3. Acquire Resources |  |  | 3 |  |  |
| 🡪 | 4. Develop Team |  |  | 4 |  |  |
| 🡪 | 5. Manage Team |  |  | 5 |  |  |
|  | 6. Control Resources |  |  |  | 6 |  |

|  |  |
| --- | --- |
| **Background** | * Virtual Teams * Agile Teams |

|  |  |
| --- | --- |
| **Plan Resource Management** | * Organizational Breakdown Structure (OBS) * Resource Breakdown Structure (RBS) * Responsibility Assignment Matrix (RAM) |

|  |  |
| --- | --- |
| **Acquire Resources** | * Project Team |

|  |  |
| --- | --- |
| **Develop Team** | * Tuckman model * Myers-Briggs Type Indicator * Wilson Learning Social Styles Profile |

|  |  |
| --- | --- |
| **Manage Team** | * Conflict Resolution |

**Plan Resource Management**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Organizational Breakdown Structure (OBS)  Responsibility Assignment Matrix (RAM)  Staffing Management Plan (SMP) | | | | | | | | | | | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | OBS |  | RBS | |  | WBS | | | | |  | 🡨 | RBS: Resource Breakdown Structure |
|  |  |  |  | WBS: Work Breakdown Structure |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | RAM  (RACI) | |  |  | |  | 🡨 | HR Plan |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | |  |  | |  |  |  |

.

Consider the WBS for Responding to RFP:

1.0 Evaluation

1.1 Organize RFP requirements

1.2 Identify internal constraints and capabilities

2.0 Development

2.1 Introduction (Background, justification, and approach)

2.2 SOW (Statement of Work)

2.3 Satisfy regulation compliance

3.0 Closeout

3.1 Prepare document

3.2 Obtain approvals

**Organizational Breakdown Structure (OBS).**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **WBS Management Responsibilities** | | | |
| **Organizational Chart.** | **1.0** | **2.0** | **3.0** | **---** |
| **A. Division 1** |  |  |  |  |
| **1. Department 1.1** | P | S | S |  |
| **2. Department 1.2** | S | P | S |  |
| **3. Department 1.3** | S |  | P |  |
| **B. Division 2** |  |  |  |  |
| **1. Department 2.1** | S |  | S |  |
| **2. Department 2.2** |  | S |  |  |
| **3. Department 2.3** |  | S | S |  |
| **C. Division 3** |  |  |  |  |
| **1. Department 3.1** | S |  | S |  |
| **2. Department 3.2** |  | S |  |  |
| **3. Department 3.3** | S |  | S |  |
| **---** |  |  |  |  |
| P=Primary Responsibility |  |  |  |  |
| S=Support Function |  |  |  |  |

**Responsibility Assignment Matrix (RAM).**

Consider the RAM that assigns a portion of the WBS work items:

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **WBS work packages**   |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **OBS units** | **1.1** | **1.2** | **2.1** | **2.2** | **2.3** | **3.1** | **3.2** | **---** | | **System Engineering** | R | R P |  |  |  |  | R |  | | **Software Development** |  |  | R P |  |  |  |  |  | | **Hardware Development** |  |  |  | R P |  |  |  |  | | **Test Engineering** | P |  |  |  |  | R | P |  | | **Quality Assurance** |  |  |  |  | R P | P |  |  | | **---** |  |  |  |  |  |  |  |  |   R=Responsible organizational unit  P=Performing organizational unit |

Consider the RAMs that define responsibilities of stakeholders and team members:

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Stakeholders**   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **WBS** | **A** | **B** | **C** | **D** | **E** | | **1.0** | S | A | I | I | R | | **2.0** | S | P | A | I | R | | **3.0** | S | P | I | A | R |   A=Accountability  P=Participant  R=Review Required  I=Input Required  S=Sign-off Required | **RACI Chart**   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | |  | **Team Members** | | | | | | **WBS** | **Al** | **Ben** | **Cy** | **Doug** | **Elaine** | | **1.0** | R | I | A | I | C | | **2.0** | A | C | I | R | C | | **3.0** | I | RA | C | C | I |   R=Responsible (Does Work)  A=Accountable (Final Authority)  C=Consult (Supports Work)  I=Inform (Follows Work) |

**Acquire Resources**

Project Team Directory

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Organization: | *Representation* |  |  |  |  |
|  | Project: | *Manage* |  |  |  |
|  |  | Team Member 🡪  (*motivation*) | Duties  (*performance*) |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

Dimensions of Acquisition Factors:

\*Project Internal Needs (*Performance & Motivation*)

\*Project Expertise & Domain Expertise (*Manage*)

\*Project External Needs (*Representation*)

\*Face teams & Virtual teams

**Develop Team**

> Training & Team Building

>Tuckman model: Forming, Storming, Norming, Performing, Adjourning

* Forming – Business-like, formal, guarded. “Leader Directing”
* Storming – Confrontational, argumentative. “Leader Coaching”
* Norming – Compromising, conforming. “Leader Facilitating”
* Performing – Productive, decisive. “Leader Delegating”
* Adjourning – Closure, motivated. “Leader Celebrating”

>Myers-Briggs Type Indicator (E/I,S/N,T/F,J/P)

|  |  |  |  |
| --- | --- | --- | --- |
| Indicator | (Title) | [Description] | {Examples} |
| E/I | (Extrovert/Introvert) | [draws energy] | {external/internal} |
| S/N | (Sensation/Intuition) | [gathers information] | {literal/conceptual} |
| T/F | (Thinking/Feeling) | [makes decisions ] | {logical/subjective} |
| J/P | (Judgment/Perception) | [works in structure ] | {rules/loose} |

>Wilson Learning Social Styles Profile

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |
|  |  | Reactive🡪 | Proactive🡪 |  |  |  |
|  | Task-oriented🡪 | Analytical | Driver |  |  |  |
|  | People-oriented🡪 | Amiable | Expressive |  |  |  |
|  |  |  |  | Critical thinkers | Action oriented |  |
|  |  |  |  | Followers | Future thinkers |  |
|  |  |  |  |  |  |  |

>Project Manager must be sensitive to team members

* Dynamic nature of characteristics within team members
* Interaction of characteristics between team members
* Expression of characteristics from team members

>>“Apply to team members and stakeholders”

**Manage Team**

>Evaluation of the Importance of the Conflict:

\*Source of conflict – team member/stakeholder/supplier

\*Type of conflict – technical (project related)/personal (team related)

\*Basis of conflict – legitimate (needs, requirements)/cosmetic (opinion, emotional)

\*Level of conflict – high/low (Intensity. Project implications or team emotions)

\*Solution of conflict – well-defined solution/ill-defined solution

**\*\*\*Project Driven Conflict Resolution\*\*\***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Mode** | **Indicated** | **Not Indicated** | **Not Done**  **If Indicated** | **Done**  **If Not Indicated** |
| **Collaborating** |  |  |  |  |
| **Compromising** |  |  |  |  |
| **Smoothing** |  |  |  |  |
| **Forcing** |  |  |  |  |
| **Withdrawal** |  |  |  |  |

NOTE:

Collaborating: detail, task, well-defined

Compromising: opinion, ill-defined

Smoothing: emotions, personality

Forcing: high importance, detail, no solution, must choose

Withdrawal: low importance, no solution, emotional

|  |
| --- |
| Consideration: When is it appropriate for the resolution of conflict to be “Transferred” or “Delegated”? |