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(UCI)

PROJECT MANAGEMENT PLAN FOR THE SUSTAINABLE PLANT NIGHT
EVENTS PROJECT IN SAN JOSE, COSTA RICA

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DEDICATION

To my partner and daughter, whose undeniable and unconditional support made all the difference in the world.

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ABBREVIATIONS AND ACRONYMS

- AC: Actual cost
- BAC: Budget at completion
- CV: Cost variance
- EAC: Estimate at completion
- EIRL: Individual limited liability company (for its acronym in Spanish)
- EV: Earned value
- EVA: Earned value analysis
- FGP: Final graduation project
- GD: Graphic designer
- H: Host
- ISO: International Organization for Standardization
- N/A: Not applicable
- PM: Project manager
- PMBOK: Project Management Body of Knowledge
- PMI: Project Management Institute
- PMP: Project management plan
- PS: Project sponsor
- PV: Planned value
- RACI: Responsible, accountable, consulted, informed
- RBS: Risk breakdown structure
- SV: Schedule variance
- VAC: Variance at completion
- WBS: Work breakdown structure

EXECUTIVE SUMMARY (ABSTRACT)

Project management planning plays an essential role in helping guide sponsors, stakeholders, team members, and the project manager through other project phases. Felmar Compañía EIRL is an individual limited liability company, created in 2018 with the purpose of providing an extra source of income for the project sponsor, through project execution. With the Plant Night Events Project, the company seeks to create community through social gatherings in a setting for people with similar interests. In alliance with local businesses, the events will offer a venue to socialize and to exercise artistic creativity by assembling potted plants and terrariums. The events will integrate environmental issues into planning in order to have a minimal adverse environmental impact.

Since the company's creation, there have been five different project initiatives that have failed to deliver the agreed upon service or product. Due to these past failures, it is important to produce a project management tool that will allow the project to have clear focus and objectives and a sustainable event management approach.

The purpose of this final graduation project (FGP) is to develop a project management plan that will define the basis for the Plant Night Events project execution through sustainable event management.

The general objective is to develop a project management plan, according to the standards of the Project Management Institute, to manage the Plant Night Events Project through sustainable event planning. The specific objectives are to create a project charter to formally authorize the existence of the project and provide the project manager with the authority to apply resources to project activities; to develop a scope management plan to ensure that the project includes all of the work required, and only the work required, to successfully complete the project; to develop a schedule management plan to manage the timely completion of the project; to create a cost management plan to ensure that the project is completed within the approved

budget; to create a quality management plan to identify the quality requirements for the project in order to ensure that these requirements are met in the project deliverables and work processes; to develop a resource management plan to identify, acquire, and manage the resources needed for the successful completion of the project; to create a risk management plan to identify, analyze, respond, and monitor risks on the project to increase the probability and/or impact of opportunities and decrease the probability and/or impact of risks, in order to optimize the chances of project success; to create a procurement management plan to identify the processes necessary to purchase or acquire products, services, or results needed from outside the project team that cause minimal adverse environmental impacts, necessary for the successful completion of the project; to develop a communication management plan to ensure that the information needs of the project and its stakeholders are met; and to create a stakeholder management plan to identify, analyze, and manage stakeholder expectations and impact on the project.

The methodology for this project was analytical. Key data were analyzed in order to make a critical evaluation of the available material, and the best strategies were identified for the creation of the project management plan.

The project management plan, developed using the PMBOK® Guide 6th Edition, provided the project team with a methodology to develop a more thorough plan for the project than the usual informal planning applied by Melfar. It allowed the team to apply several tools that proved to be very useful for the different PMP processes described in this plan, such as the stakeholder analysis, the WBS, and the risk register. This PMP generates an extra value for Melfar, as it is recommended that it be used as the basis for constructing a template for future projects, tailored to their unique and specific needs. In case that the current global situation caused by the COVID-19 pandemic should not allow the project to be performed by the established deadline, then it is recommended that Melfar and the project team review the alternatives listed in the risk register, such as offering the event online.

1 INTRODUCTION

1.1. Background

Felmar Compañía EIRL (by its acronym in Spanish), created in January of 2018, is an individual limited liability company, meaning it is a company that allows a person to initiate a company's activities individually.

Since the company's creation, there have been five different project initiatives that have not been successfully executed. All of the project initiatives have to do with a business idea created with the purpose of becoming an extra income for the project sponsor.

The Plant Night Events Project consists of designing and executing one event in a local business, which will serve as the venue. After the finalization of the project, the project management plan will be reviewed and corrected, and it will be the basis for future plant night events.

The events will consist of a guided workshop in which the attendees, for a fee, will have the materials to assemble potted plants and build terrariums. The events, guided by a host, will include a beverage provided by the venue. At the end of the event, each attendee will go home with a terrarium of their own creation. All materials and venues will incorporate socially and environmentally responsible decision making into the planning, organization, and implementation of the event.

1.2. Statement of the Problem

Felmar aims to provide an extra source of income for the project sponsor through the project execution. An extra income will provide a safety net in case the primary source of income is lost. It will also create more financial security, help pay down debts, and allow a space for creativity. Since its creation, in less than two years, it

has had five unsuccessful project initiatives. Due to these past failures, it is important to produce a management tool that will allow the project to have clear focus and objectives, a realistic schedule, the maximization of resources, risk and quality management and control, and a sustainable event management approach that will have a concern for environmental issues.

By the implementation of a project management plan, the Plant Night Events Project will have a clear definition of how the project will be executed, monitored, and controlled, enhancing its chances for success, and thus creating an extra income.

1.3. Purpose

Project failure can happen in any organization and to any project. According to Discenza and Forman, “inadequate planning is one of the major reasons why projects spin out of control.” (Discenza, R. & Forman, J. B., 2007). Past failure experiences in project execution for Felmar have created a need for a concrete management plan.

Plant Night Events is a project that aims to create community through social gatherings in a setting for people with similar interests. In alliance with local businesses, such as bars, restaurants, and coffee shops, the events will offer a venue to socialize and to exercise artistic creativity by assembling potted plants and terrariums with the guidance of an event hostess. The events will integrate environmental issues into planning in order to have a minimal adverse environmental impact.

In order to increase the chances of success of the Plant Night Events Project, the project manager will develop a project management plan that will define the basis for project execution through sustainable event management by prioritizing resources and ensuring their efficient use and set the scope, schedule, and budget accurately from the start. This project management plan will become the basis for

future project plans. The research proposal will use the Project Management Institute's (PMI) guide to effectively create the project management plan and all its specific deliverables, which include the project charter and the scope, schedule, cost, quality, resource, risk, procurement, communication, and stakeholder management plans.

1.4. General Objective

To develop a project management plan, according to the standards of the Project Management Institute, to manage the Plant Night Events Project through sustainable event planning

1.5. Specific Objectives

- To create a project charter to formally authorize the existence of the project and provide the project manager with the authority to apply resources to project activities
- To develop a scope management plan to ensure that the project includes all of the work required, and only the work required, to successfully complete the project
- To develop a schedule management plan to manage the timely completion of the project
- To create a cost management plan to ensure that the project is completed within the approved budget
- To create a quality management plan to identify the quality requirements for the project in order to ensure that these requirements are met in the project deliverables and work processes
- To develop a resource management plan to identify, acquire, and manage the resources needed for the successful completion of the project
- To create a risk management plan to identify, analyze, respond, and monitor risks on the project to increase the probability and/or impact of opportunities

and decrease the probability and/or impact of risks, in order to optimize the chances of project success

- To create a procurement management plan to identify the processes necessary to purchase or acquire products, services, or results needed from outside the project team that cause minimal adverse environmental impacts, necessary for the successful completion of the project
- To develop a communication management plan to ensure that the information needs of the project and its stakeholders are met
- To create a stakeholder management plan to identify, analyze, and manage stakeholder expectations and impact on the project

2 THEORETICAL FRAMEWORK

Company/Enterprise Framework

- **Company/Enterprise Background**

In January of 2017, the project sponsor was experimenting with raw honey infusions. She would buy the best quality raw honey she could find and create different infusion flavors with herbs and fruits. It started out as a simple experiment at home and would later become a business idea directed to local young adults, tourists, and people interested in homeopathy and natural products made in Costa Rica.

Once she had a draft for a business plan, she contacted her lawyer and decided that the next step would be to create an EIRL, which in Costa Rica is an individual limited liability company, meaning it is a company that allows a person to initiate a company's activities individually.

Felmar Compañía EIRL was created in January of 2018 with the purpose of developing project initiatives, such as the honey infusions, which have to do with a business idea, with the aim of becoming an extra income for the project sponsor.

The project sponsor had the business plan draft and the company and was starting with the sanitary permit procedures, which are required in Costa Rica in order to make and sell this type of product. However, the project fell through.

After taking classes in interior decorating and having heard of the paint night activities, which are activities that combine art lessons and alcohol at bars and restaurants in the United States, she came up with the idea of building terrariums in a similar setting. She has decided to start this new endeavor with a project management plan to avoid this project from falling through and to have the first successful project for Felmar.

- **Mission and Vision Statements**

MISSION: Felmar, the first of its kind in Costa Rica, aims to create community through weeknight social gatherings for friends, couples, and individuals. In alliance with local businesses, such as bars, restaurants, and coffee shops, the events offer a venue to socialize, have a drink, and get creative by assembling potted plants and terrariums in a group setting with the help an event host.

VISION: To be the event that people prefer when they want a casual and creative night out

The final graduation project seeks to create a project management plan that will assist in the creation of this project, taking the mission and vision into consideration while adding a sustainable point of view.

- **Organizational Structure**

At this moment, Felmar Compañía EIRL has only one member, which is the company creator and project sponsor for the Plant Night Events Project.

- **Products Offered**

As it was mentioned before, Felmar initiated with the purpose of developing a project that will become an extra income for the project sponsor. There are currently no successful projects in the history of the company, which is less than two years old. One of the main reasons for starting out the Plant Night Events Project with a concrete project management plan is to have its first successful project.

Project Management Concepts

- **Project**

According to A Guide to the Project Management Body of Knowledge (PMBOK) 6th Edition, “a project is a temporary endeavor undertaken to create a unique product, service, or result.” (Project Management Institute, 2017, p.4). For this final graduation project, the unique result is to create a project management plan for the Plant Night Events Project, which will later be used as a basis for future project initiatives.

Felmar focuses on supporting project initiatives; however, it did not follow a proper project structure for the first project it tried to develop.

- **Project Management**

According to the PMBOK 6th Edition, “Project management is the application of knowledge, skills, tools, and techniques to project activities to meet the project requirements.” (Project Management Institute, 2017, p.10). Through the development of the project management plan, this final graduation project seeks to serve as an important tool for Felmar, as it will enable it to execute the project effectively and efficiently.

Felmar has no previous experience in implementing any project management knowledge, skills, tools, or techniques on any of the project initiatives.

- **Project Life Cycle**

The PMBOK 6th Edition defines a project life cycle as “the series of phases that a project passes through from its start to its completion. It provides the basic framework for managing the project.” (Project Management Institute, 2017, p.19). Figure 1 shows the generic life cycle to which all projects can be mapped to.

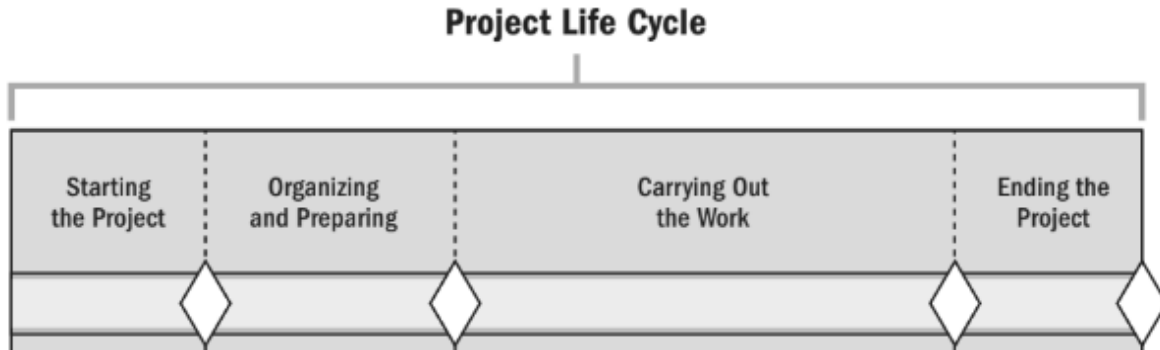


Figure 1. Generic Project Life Cycle Map. Reprinted from *A Guide to the Project Management Body of Knowledge* (p. 18), Project Management Institute, 2017. Project Management Institute. Copyright 2017 by Project Management Institute, Inc.

As it was stated before, Felmar has no previous project management knowledge application; therefore, this is the first time it will apply a project management tool for the development of a project. For the Plant Night Events Project, it will have a predictive life cycle, meaning that the project scope, time, and cost will be determined early in the project life cycle.

- **Project Management Processes**

A project management process is a series of project management activities that are executed to manage the project life cycle. According to PMBOK Guide 6th Edition, “Every project management process produces one or more outputs from one or more inputs by using appropriate project management tools and techniques” (Project Management Institute, 2017, p. 22). Figure 2 shows an example process.

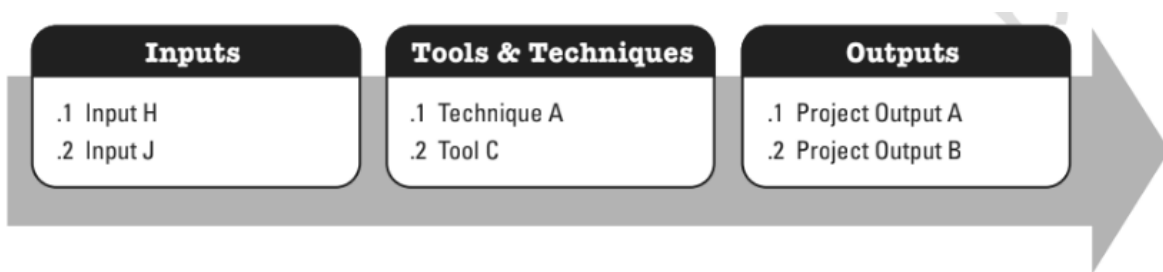


Figure 2. Example Process: Inputs, Tools & Techniques, and Outputs. Reprinted from *A Guide to the Project Management Body of Knowledge* (p. 18), Project Management Institute, 2017. Project Management Institute. Copyright 2017 by Project Management Institute, Inc.

The adequate application and integration of grouped project management processes allows for project management. The PMBOK Guide 6th Edition sorts processes into the following five different categories called process groups (Project Management Institute, 2017, p. 23):

- Initiating process group: It includes those processes performed to define a new project or a new phase of an existing project by obtaining authorization to start the project or phase.
- Planning process group: It includes those processes required to establish the scope of the project, refine the objectives, and define the course of action required to attain the objectives that the project was undertaken to achieve.
- Executing process group: It includes those processes performed to complete the work defined in the project management plan to satisfy the project requirements.
- Monitoring and controlling process group: It includes those processes required to track, review, and regulate the progress and performance of the project; identify any areas in which changes to the plan are required; and initiate the corresponding changes.
- Closing process group: It includes those processes performed to formally complete or close the project, phase, or contract.

For the purpose of this final graduation project, the project management plan will include only the initiating and planning process groups.

- **Project Management Knowledge Areas**

The PMI establishes ten (10) knowledge areas in project management. According to the PMBOK Guide 6th Edition, “A Knowledge Area is an identified area of project management defined by its knowledge requirements and described in terms of its component processes, practices, inputs, outputs, tools, and techniques” (Project Management Institute, 2017, p. 23).

The project management plan for the Plant Night Events Project will include all ten knowledge areas described by the PMBOK Guide 6th Edition, which are the following:

- Project integration management: It will include the processes and activities to identify, define, combine, unify, and coordinate the various processes and project management activities of the Plant Night Events project management process groups.
- Project scope management: It will include the processes required to ensure the Plant Night Events Project includes all of the work required, and only the work required, to complete the project successfully.
- Project schedule management: It will include the processes required to manage the timely completion of the Plant Night Events Project.
- Project cost management: It includes the processes required to ensure that the Plant Night Events Project is completed within the approved budget.
- Project quality management: It will include the processes for identifying the quality requirements for the Plant Night Events Project in order to ensure that these requirements are met in the project deliverables and work processes.
- Project resource management: It will include the processes to identify, acquire, and manage the resources needed for the successful completion of the Plant Night Events Project.
- Project risk management: It will include the processes to identify, analyze, respond, and monitor risks on the Plant Night Events Project to increase the probability and/or impact of opportunities and decrease the probability and/or impact of risks, in order to optimize the chances of project success.
- Project procurement management: It will include the processes necessary to purchase or acquire products, services, or results needed from outside the Plant Night Events project team that cause minimal adverse environmental impacts, necessary for the successful completion of the project.

- Project communication management: It will include the processes to ensure that the information needs of the Plant Night Events Project and its stakeholders are met.
- Project stakeholder management: It will include the processes necessary to identify, analyze, and manage stakeholder expectations and impact on the Plant Night Events Project.

Other Applicable Theory/Concepts Related to the Project Topic and Context

- **Sustainable Event Management**

Felmar's Plant Night Events Project consists of designing and executing one event in a local business, which will serve as the venue. The event will consist of a guided workshop in which the attendees, for a fee, will have the materials to assemble potted plants and build terrariums. At the end of the event, each attendee will go home with a terrarium of their own creation. All materials and venues will incorporate socially and environmentally responsible decision making into the planning, organization, and implementation of the event.

According to ISO 20121, "sustainability is about how an organization continues to run its activities in a commercially successful way whilst contributing towards a stronger and more just society and reducing its impact on the environment", and "sustainable event management is the process of integrating environmental and social responsibility issues into event planning" (McKinley, 2019). Events come in all shapes and sizes; they can be as big as a rock concert or the Olympic Games and as small as a bake sale to raise funds for the local school. No matter the size of the event, it is important to consider its aftermath. Getting together can "put a strain on local resources such as water and energy, and create significant waste, or tensions related to culture or sheer proximity with neighboring communities" (ISO, 2012).

The Plant Night Event Project will include sustainability in planning by creating a sustainability policy, which will provide a clear strategy so that the event efforts meet the outcomes desired by the organizers, sponsor, attendees, and other stakeholders. The policy will include the values, issues, goals & targets, and commitments of the Plant Night Events Project.

3 METHODOLOGICAL FRAMEWORK

Information Sources

According to Ashikuzzaman, “An Information Source is a source of information for somebody, i.e. anything that might inform a person about something or provide knowledge to somebody. Information sources may be observations, people speeches, documents, pictures, organizations etc.” (Ashikuzzaman, 2018).

- **Primary Sources**

Primary sources of information are “the first published records of original research and development or description of new application or new interpretation of an old theme or idea. There are original documents representing unfiltered original ideas.” (Ashikuzzaman, 2018).

For the development of the final graduation project, the primary sources of information will be personal interviews with the project sponsor and other stakeholders, such as local venue owners and sellers, and meeting minutes. See Chart 1.

- **Secondary Sources**

Secondary sources of information “are those which are either compiled from or refer to primary sources of information. The original information is, modified selected or

reorganized to serve a definite purpose for group of users. Such sources contain information arranged and organized based on some definite plan. These contain organized repackaged knowledge rather than new knowledge.” (Ashikuzzaman, 2018).

For the development of the final graduation project, secondary sources such as the PMBOK Guide, library databases, the PMI database, documentation related to sustainable event management, and ISO 20121 will be used. See Chart 1.

Chart 1. Information Sources (Source: author of the study)

Objectives	Information sources	
	Primary	Secondary
To create a project charter to formally authorize the existence of the project and provide the project manager with the authority to apply resources to project activities	Interviews with the project sponsor and meeting minutes	The PMBOK Guide 6 th Edition
To develop a scope management plan to ensure that the project includes all of the work required, and only the work required, to successfully complete the project	Interviews with the project sponsor and meeting minutes	The PMBOK Guide 6 th Edition “Requirements management – planning for success!: techniques to get it right when planning requirements” paper from the PMI Database MOSCOW prioritization document
To develop a schedule management plan to manage the timely completion of the project	Interviews with the project sponsor and meeting minutes	The PMBOK Guide 6 th Edition “Five keys to estimated” paper from the PMI database
To create a cost management plan to ensure that the project is completed within the approved budget	Interviews with the project sponsor and sellers and meeting minutes	The PMBOK Guide 6 th Edition

Continuation of Chart 1. Information Sources (Source: author of the study)

Objectives	Information sources	
	Primary	Secondary
To create a quality management plan to identify the quality requirements for the project in order to ensure that these requirements are met in the project deliverables and work processes	Interviews with the project sponsor and meeting minutes	The PMBOK Guide 6 th Edition, PMI database, documentation related to sustainable event management, and ISO 20121
To develop a resource management plan to identify, acquire, and manage the resources needed for the successful completion of the project	Interviews with the project sponsor, and meeting minutes	The PMBOK Guide 6 th Edition “The role of human resource management in project-oriented organizations” and “Conflicts in the project environment” papers from the PMI database
To create a risk management plan to identify, analyze, respond, and monitor risks on the project to increase the probability and/or impact of opportunities and decrease the probability and/or impact of risks, in order to optimize the chances of project success	Interviews with the project sponsor and meeting minutes	The PMBOK Guide 6 th Edition
To create a procurement management plan to identify the processes necessary to purchase or acquire products, services, or results needed from outside the project team that cause minimal adverse environmental impacts, necessary for the successful completion of the project	Interviews with the project sponsor, sellers, and local venue owners and meeting minutes	The PMBOK Guide 6 th Edition, PMI database, documentation related to sustainable event management, and ISO 20121
To develop a communication management plan to ensure that the information needs of the project and its stakeholders are met	Interviews with the project sponsor and meeting minutes	The PMBOK Guide 6 th Edition “How to Calculate communication channels in Project Communication” document
To create a stakeholder management plan to identify, analyze, and manage stakeholder expectations and impact on the project	Interviews with the project sponsor, sellers, and local venue owners and meeting minutes	The PMBOK Guide 6 th Edition

Research Methods

Research is “original contribution to the existing stock of knowledge making for its advancement. It is the pursuit of truth with the help of study, observation, comparison and experiment” and research methods are “all those methods/techniques that are used for conduction of research.” (Kothari, 2004).

The basic types of research are as follows (Kothari, 2004):

Descriptive method: This type of research includes surveys and fact-finding enquiries; its main purpose is to describe the state of the affairs as they exist at present.

Analytical method: In the analytical method, the researcher uses information and facts available and analyses them to evaluate the material.

Quantitative method: This type of research is based on the measurement of quantity or amount, applicable to phenomena that can be expressed in terms of quantity.

Qualitative method: Qualitative research is concerned with qualitative phenomena, relating to or involving quality or kind.

- **Analytical Method**

For the analytical method, “the researcher has to use facts or information already available, and analyze these to make a critical evaluation of the material.” (Kothari, 2004). The FGP will use the analytical method information from multiple sources to develop the deliverables found in Chart 2.

Chart 2. Research Methods (Source: author of the study)

Objectives	Research methods
	Analytical method
To create a project charter to formally authorize the existence of the project and provide the project manager with the authority to apply resources to project activities	The analytical method will be used on the information sources identified in Chart 1 to determine decisions when developing the project charter.
To develop a scope management plan to ensure that the project includes all of the work required, and only the work required, to successfully complete the project	The analytical method will be used on the information sources identified in Chart 1 to determine decisions when developing the scope management plan.
To develop a schedule management plan to manage the timely completion of the project	The analytical method will be used on the information sources identified in Chart 1 to determine decisions when developing the schedule management plan.
To create a cost management plan to ensure that the project is completed within the approved budget	The analytical method will be used on the information sources identified in Chart 1 to determine decisions when developing the cost management plan.
To create a quality management plan to identify the quality requirements for the project in order to ensure that these requirements are met in the project deliverables and work processes	The analytical method will be used on the information sources identified in Chart 1 to determine decisions when developing the quality management plan.
To develop a resource management plan to identify, acquire, and manage the resources needed for the successful completion of the project	The analytical method will be used on the information sources identified in Chart 1 to determine decisions when developing the resource management plan.
To create a risk management plan to identify, analyze, respond, and monitor risks on the project to increase the probability and/or impact of opportunities and decrease the probability and/or impact of risks, in order to optimize the chances of project success	The analytical method will be used on the information sources identified in Chart 1 to determine decisions when developing the risk management plan.

Continuation of Chart 2. Research Methods (Source: author of the study)

Objectives	Research methods
	Analytical method
To create a procurement management plan to identify the processes necessary to purchase or acquire products, services, or results needed from outside the project team that cause minimal adverse environmental impacts, necessary for the successful completion of the project	The analytical method will be used on the information sources identified in Chart 1 to determine decisions when developing the procurement management plan.
To develop a communication management plan to ensure that the information needs of the project and its stakeholders are met	The analytical method will be used on the information sources identified in Chart 1 to determine decisions when developing the communication management plan.
To create a stakeholder management plan to identify, analyze, and manage stakeholder expectations and impact on the project	The analytical method will be used on the information sources identified in Chart 1 to determine decisions when developing the stakeholder management plan.

Tools

According to The PMBOK Guide 6th Edition, a tool is “something tangible, such as a template or software program, used in performing an activity to produce a product or result” (Project Management Institute, 2017, p. 725).

Some examples of tools that will be used for the FGP are as follows:

Brainstorming: This is a data gathering technique “used to identify a list of ideas in a short period of time. It is conducted in a group environment and is led by a facilitator” (Project Management Institute, 2017, p. 80).

Interviews: “Interviews are used to obtain information on high-level requirements, assumptions or constraints, approval criteria, and other information from stakeholders by talking directly to them” (Project Management Institute, 2017, p. 80).

Expert judgement: This type of tool considers expertise "...from individuals or groups with specialized knowledge or training..." in the topics of interest (Project Management Institute, 2017, p. 281).

Alternative analysis: "A technique used to evaluate identified options in order to select the options or approaches to use to execute and perform the work of the project" (Project Management Institute, 2017, p. 699).

Data representation: "Graphic representations or other methods used to convey data and information" (Project Management Institute, 2017, p. 704). Some examples are hierarchical charts and the responsibility assignment matrix.

Data analysis: "...used to organize, assess, and evaluate data and information" (Project Management Institute, 2017, p. 704). Some examples are alternative analysis and cost of quality.

The tools used for the final graduation project are shown in Chart 3.

Chart 3. Tools (author of the study)

Objectives	Tools
To create a project charter to formally authorize the existence of the project and provide the project manager with the authority to apply resources to project activities	<p>Data gathering:</p> <ul style="list-style-type: none"> • Brainstorming • Interviews <p>Meetings:</p> <ul style="list-style-type: none"> • With stakeholders to identify the project objectives, success criteria, key deliverables, and high-level requirements
To develop a scope management plan to ensure that the project includes all of the work required, and only the work required, to successfully complete the project	<p>Expert judgement:</p> <ul style="list-style-type: none"> • Previous similar projects • Information in the industry <p>Meetings:</p> <ul style="list-style-type: none"> • With key members to develop the scope management plan
To develop a schedule management plan to manage the timely completion of the project	<p>Expert judgement:</p> <ul style="list-style-type: none"> • Scheduling software • Specific industry <p>Data analysis:</p> <ul style="list-style-type: none"> • Alternative analysis <p>Meetings:</p> <ul style="list-style-type: none"> • With key members to develop the schedule management plan
To create a quality management plan to identify the quality requirements for the project in order to ensure that these requirements are met in the project deliverables and work processes	<p>Expert judgement:</p> <ul style="list-style-type: none"> • Quality assurance <p>Data gathering:</p> <ul style="list-style-type: none"> • Brainstorming <p>Data analysis</p> <p>Meetings:</p> <ul style="list-style-type: none"> • With key members to develop the quality management plan

Continuation of Chart 3. Tools (author of the study)

Objectives	Tools
<p>To develop a resource management plan to identify, acquire, and manage the resources needed for the successful completion of the project</p>	<p>Expert judgement:</p> <ul style="list-style-type: none"> • Negotiation • Managing sellers and the logistics effort <p>Data representation:</p> <ul style="list-style-type: none"> • Hierarchical charts • Responsibility assignment matrix <p>Organizational theory:</p> <ul style="list-style-type: none"> • To shorten the amount of time, cost, and effort needed to create the resource management plan <p>Meetings:</p> <ul style="list-style-type: none"> • With key members to develop the resource management plan
<p>To create a procurement management plan to identify the processes necessary to purchase or acquire products, services, or results needed from outside the project team that cause minimal adverse environmental impacts, necessary for the successful completion of the project</p>	<p>Expert judgement:</p> <ul style="list-style-type: none"> • Procurement and purchasing • Regulations and compliance topics <p>Data gathering:</p> <ul style="list-style-type: none"> • Market research <p>Data analysis:</p> <ul style="list-style-type: none"> • Make-or-buy analysis <p>Source selection analysis:</p> <ul style="list-style-type: none"> • Quality and cost-based • Fixed budget <p>Meetings:</p> <p>With key members to develop the procurement management plan</p>

Continuation of Chart 3. Tools (author of the study)

Objectives	Tools
<p>To develop a communication management plan to ensure that the information needs of the project and its stakeholders are met</p>	<p>Expert judgement:</p> <ul style="list-style-type: none"> • Industry • Organizational communication technologies • Stakeholders <p>Communication requirement analysis Communication technology Communication methods:</p> <ul style="list-style-type: none"> • Interactive • Push • Pull <p>Interpersonal and team skills:</p> <ul style="list-style-type: none"> • Communication style assessment • Political awareness • Cultural awareness <p>Data representation:</p> <ul style="list-style-type: none"> • Stakeholder assessment matrix <p>Meetings: With key members to develop the communication management plan</p>
<p>To create a stakeholder management plan to identify, analyze, and manage stakeholder expectations and impact on the project</p>	<p>Expert judgement:</p> <ul style="list-style-type: none"> • Environment and culture of the industry • Communication means and strategies <p>Data gathering:</p> <ul style="list-style-type: none"> • Benchmarking <p>Data analysis:</p> <ul style="list-style-type: none"> • Assumption and constraint analysis • Root cause analysis <p>Data representation:</p> <ul style="list-style-type: none"> • Stakeholder engagement assessment matrix <p>Meetings: With key members to develop the stakeholder management plan</p>

Assumptions and Constraints

Assumptions are “factors that, for planning purposes, are considered to be true, real, or certain without proof or demonstration” and constraints are “restrictions or limitations, either internally or externally, to the project which will affect the performance of the project or a process” (Kinser, 2010).

The list of assumptions and constraints for the FGP are shown in Chart 4.

Chart 4. Assumptions and Constraints (Author of the study)

Objectives	Assumptions	Constraints
To create a project charter to formally authorize the existence of the project and provide the project manager with the authority to apply resources to project activities	<ul style="list-style-type: none"> All the information will be available on time. The project charter will be created before any other plan. 	<ul style="list-style-type: none"> Short time assigned for this objective
To develop a scope management plan to ensure that the project includes all of the work required, and only the work required, to successfully complete the project	<ul style="list-style-type: none"> All of the information will be available on time. The scope management plan will have all and only the work required. 	<ul style="list-style-type: none"> The project sponsor will be travelling during the execution of this objective.
To develop a schedule management plan to manage the timely completion of the project	<ul style="list-style-type: none"> The scheduling software will be functional and available. 	<ul style="list-style-type: none"> The project sponsor has never used a scheduling software.
To create a cost management plan to ensure that the project is completed within the approved budget	<ul style="list-style-type: none"> The cost management plan will include all costs needed for the successful execution of the project. 	<ul style="list-style-type: none"> This is a self-funded project.

Continuation of Chart 4. Assumptions and Constraints (Author of the study)

Objectives	Assumptions	Constraints
To develop a resource management plan to identify, acquire, and manage the resources needed for the successful completion of the project	<ul style="list-style-type: none"> Resources will be available and under budget. 	<ul style="list-style-type: none"> Resources need to have a sustainable development perspective.
To create a risk management plan to identify, analyze, respond, and monitor risks on the project to increase the probability and/or impact of opportunities and decrease the probability and/or impact of risks, in order to optimize the chances of project success	<ul style="list-style-type: none"> There is enough information to identify all project risks. 	<ul style="list-style-type: none"> All of the project risks need to be identified as early as possible.
To create a procurement management plan to identify the processes necessary to purchase or acquire products, services, or results needed from outside the project team that cause minimal adverse environmental impacts, necessary for the successful completion of the project	<ul style="list-style-type: none"> The project sponsor has identified all products and services needed for the execution of the project. 	<ul style="list-style-type: none"> Products, services, and results need to have a sustainable development perspective.
To develop a communication management plan to ensure that the information needs of the project and its stakeholders are met	<ul style="list-style-type: none"> Felmar has the technology required for the effective communication with stakeholders. 	<ul style="list-style-type: none"> The availability of Internet services and electricity is sometimes unreliable in Costa Rica.
To create a stakeholder management plan to identify, analyze, and manage stakeholder expectations and impact on the project	<ul style="list-style-type: none"> All key stakeholders will be identified. 	<ul style="list-style-type: none"> Local business owners and providers have not been identified yet.

Deliverables

According to The PMBOK Guide 6th Edition, a deliverable is “any unique and verifiable product, result, or capability to perform a service that is required to be produced to complete a process, phase, or project” (Project Management Institute, 2017, p. 301).

The deliverables for the final graduation project are shown in Chart 5.

Chart 5. Deliverables (Source: author of the study)

Objectives	Deliverables
To create a project charter to formally authorize the existence of the project and provide the project manager with the authority to apply resources to project activities	Project charter
To develop a scope management plan to ensure that the project includes all of the work required, and only the work required, to successfully complete the project	Scope management plan
To develop a schedule management plan to manage the timely completion of the project	Schedule management plan
To create a cost management plan to ensure that the project is completed within the approved budget	Cost management plan
To create a quality management plan to identify the quality requirements for the project in order to ensure that these requirements are met in the project deliverables and work processes	Quality management plan
To develop a resource management plan to identify, acquire, and manage the resources needed for the successful completion of the project	Resource management plan
To create a risk management plan to identify, analyze, respond, and monitor risks on the project to increase the probability and/or impact of opportunities and decrease the probability and/or impact of risks, in order to optimize the chances of project success	Risk management plan
To create a procurement management plan to identify the processes necessary to purchase or acquire products, services, or results needed from outside the project team that cause minimal adverse environmental impacts, necessary for the successful completion of the project	Procurement management plan
To develop a communication management plan to ensure that the information needs of the project and its stakeholders are met	Communication management plan
To create a stakeholder management plan to identify, analyze, and manage stakeholder expectations and impact on the project	Stakeholder management plan

4 RESULTS

4.1. Project Charter

The development of the project charter for the Plant Night Events Project formally authorizes the existence of the project and will provide the project manager with the authority to apply organizational resources to project activities.

According to A Guide to the Project Management Body of Knowledge (PMBOK) 6th Edition (PMI, 2017), the following inputs and tools and techniques are required to develop the project charter. See Figure 3 below.

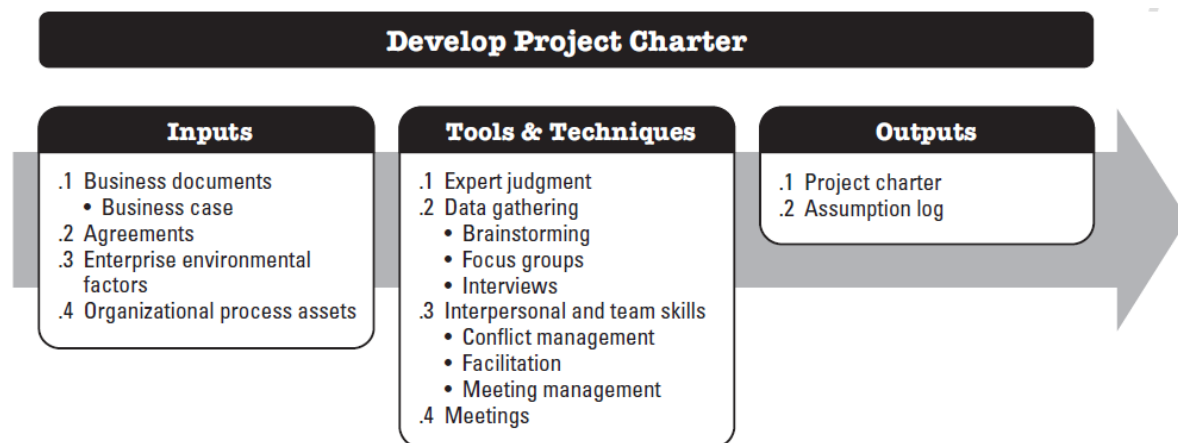


Figure 3. Develop Project Charter: Inputs, Tools & Techniques, and Outputs. Reprinted from A Guide to the Project Management Body of Knowledge (PMBOK) 6th Edition (p. 75), Project Management Institute, 2017. Project Management Institute. Copyright 2017 by Project Management Institute, Inc.

Since Felmar Compañía EIRL does not have a developed project management approach, none of the business documents, agreements, or any other inputs required to deliver the project charter existed. The project manager and the project sponsor conducted a meeting (see Appendix 4) in order to gather the necessary information to develop the project charter below.

Plant Night Events Project Charter

Revision status: version 1.0

Document author: Elky Mug

Document owner: Felmar Compañía EIRL

Project: Sustainable Plant Night Events

Project manager: Elky Mug

Document approver(s): All approvers are required. Records of each approver must be maintained.

Approver name	Role
Michelle Felser	Project sponsor

NOTE: All reviewers in the list are considered required unless explicitly listed as optional.

Summary of Changes:

To request a change to this document, contact the document author or owner.

Changes to this document are summarized in the following table:

Revision	Date	Created by	Short description of the changes
[0.0]	[12/14/2019]	Project manager	<i>Initial version of the document</i>
[0.1]	[05/22/2020]	Project manager	<i>Continuation of document sections</i>
[1.0]	[06/04/2020]	Project manager	<i>Completion of version 1.0</i>
[1.1]	[07/18/2020]	Project manager	<i>Budget update</i>

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- 4.1.10. Project Approval Requirements
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4.1.1. Introduction

Purpose

The purpose of this document is to formally authorize the existence of the Sustainable Plant Night Events Project and provide the project manager with the authority to apply Felmar Compañía EIRL resources to project activities. This document will provide an understanding of the reasons behind the development of the project and the objectives and create a formal record of the project.

Project Overview

Project title: Sustainable Plant Night Events

Description: The Sustainable Plant Night Events Project consists of designing and executing one event in a local business, which will serve as the venue. After the finalization of the project, the project management plan will be reviewed and corrected, and it will be the basis for future sustainable plant night events.

The event will consist of a guided workshop in which the attendees, for a fee, will have the materials to assemble potted plants and build terrariums. The event, guided by a host, will include a beverage provided by the venue. At the end of the event, each attendee will go home with a terrarium of their own creation. All materials and venues will incorporate socially and environmentally responsible decision making into the planning, organization, and implementation of the event.

Project Purpose

The Sustainable Plant Night Events Project aims to create community through social gatherings in a setting for people with similar interests. In alliance with local businesses, such as bars, restaurants, and coffee shops, the events will offer a venue to socialize and to exercise artistic creativity by assembling potted plants and terrariums with the guidance of an event host. The events will integrate environmental issues into planning in order to have minimal adverse environmental impact. The project will consist of the development of one event in which the attendees will socialize and assemble potted plants and terrariums. The event will be held at a local venue. It will include a beverage, the materials, the guidance of a host, and the final product to take home.

The intended audience of the Sustainable Plant Night Events Project is any adult with interest in gardening, potted plants, and terrariums.

4.1.2. Project Objectives and Success Criteria

Objectives

The objectives of the Sustainable Plant Night Event Project are the following:

- To develop a sustainable event consisting of a guided workshop for assembling potted plants and building terrariums

- To develop a partnership with local venues such as bars, restaurants, and coffee shops

- To provide a social and creative outlet for the event attendees

- To provide an extra income for the project sponsor

Success Criteria

The following chart summarizes the details of each of the project's main constraints, which are the conditions to be met in order to declare that the project is successful. This will be decided and signed off by the project sponsor.

Chart 6. Project Constraints (Source: author of the study)

Concept	Objectives
Scope	To host one sustainable plant night event with at least ten and a maximum of 15 attendees with an 80% good review on social media
Schedule	To perform the sustainable plant night event on the established date and time and within the workshop time frame
Cost	To perform the entire project with a budget of \$403
Quality	To plan the project according to the indicated requirements by the project sponsor

4.1.3. High-Level Requirements

The high-level requirements of the Plant Night Events Project are shown in the following chart:

Chart 7. Project High Level Requirements (Source: author of the study)

Deliverable	Requirement	Description
Project management	To ensure that all plan components are consolidated into an integrated project management plan	Plan components must be developed according to A Guide to the Project Management Body of Knowledge (PMBOK) 6th Edition.
Craft	To select a type of craft for the event	A craft amongst potted plants and/or terrariums will be selected for the event.
Venue	To ensure an appropriate venue	It must have a private spot with an 11 to 16 people capacity. It must have a liquor license. The space layout must be according to the event's needs. Clean and classy facilities

Continuation of Chart 7. Project High Level Requirements (Source: author of the study)

Deliverable	Requirement	Description
Marketing	To create a social media marketing strategy	Create awareness. Build community around the project. Provide social customer service. Make reservations for the event.
Materials	To ensure an ethical supply chain	Sustainable craft materials, such as recycled glass bowls, healthy plants, and high quality potting mix. Recycled material for the printed poster and vegetable-based ink. High quality refreshments, with no plastic, that reduce waste during production
Event	To ensure a quality evening for the attendees and a good relationship with the venue owner	Good enjoyable music High quality refreshments Good venue service A great host that can connect with the attendees

4.1.4. Risks, Assumptions, and Constraints

For the Sustainable Plant Night Events Project, the identified risks are presented in the following chart:

Chart 8. Project Identified Risks (Source: author of the study)

Risk category	Risk
Operational	<p>Constant changes in national social gathering and service venue policies due to the current COVID-19 pandemic might cause an increase in project cost, delays, and even sudden event cancellation.</p> <p>Inadequate procedures might cause delays at the start of the event and unsatisfied attendees that would eventually develop into bad reviews regarding the event and result in fewer attendees at future events.</p>
Environmental	<p>Risk of contagion for Norovirus would eventually develop into bad reviews regarding the event and result in fewer attendees at future events.</p> <p>Social gathering in our current context implies a risk of contagion for COVID-19.</p> <p>Costa Rica is a country vulnerable to many natural events, such as floods and earthquakes that might cause an event cancellation before the start date or a safety risk to attendees and staff if one occurs during the event.</p>
Execution	<p>Project delays, scope changes, cost changes, material availability and staff safety, and host unavailability due to a disease or something else.</p>
Market	<p>Either inaccurate revenue projections can lead to the project not being able to meet customer demand or it can lead to an oversupply of inventory.</p> <p>The venue running out of business</p>

For the Sustainable Plant Night Events Project, the identified assumptions and constraints are presented in the following chart:

Chart 9. Project Assumptions and Constraints (Source: author of the study)

Assumption	Constraint
The event will take place on schedule.	The event has a 2 hour timeframe.
The selected venue will sustain the event without problems.	The venue requires a liquor license and a health ministry operations permit.
The cost of the project will not exceed the estimated budget.	The budget is \$403.
The project will offer a service of great quality as a result, according to what is requested by the project sponsor.	Law regulation in Costa Rica establishes that the event must be held in a location with the mandatory emergency exits and emergency fire plan.
All necessary services and equipment will be available when needed.	The event location must have availability for at least 15 attendees and 1 host, and it must be located in the great metropolitan area of Costa Rica.
All attendees and the host will arrive on time.	The event location must have accessible bathrooms for restricted mobility.
The attendees will enjoy the available drinks and music.	There are approximately 7 weeks to deliver the project.

4.1.5. Summary Milestone Schedule

The preliminary schedule is to be approved by the project sponsor. The proposed schedule will take into account the amount of time it will take to complete each deliverable; however, exact dates will not be presented until the Government of Costa Rica lifts restrictions for social gathering events. The proposed schedule is shown in the following chart:

Chart 10. Project Proposed Schedule (Source: author of the study)

Date	Deliverable	Milestone
October 12, 2020	Project management	Complete project management plan
1 day	Craft	Selection
		Required material list and requirements
		Steps for building
1 week	Venue	Selection
		Reservation – establish date
		Space layout
30 days	Marketing	Social media design and announcements
		Brochure printout
		Word of mouth
		Attendee confirmation
1 week	Materials	Craft material procurement
		Marketing material procurement
		Refreshment procurement
1 hour for setup plus a 2 hour workshop	Event	Perform event

4.1.6. Preapproved Financial Resources

The approved budget for the event is \$403.

4.1.7. Business Case

The Plant Night Events Project is being developed as part of a number of new projects designed by Felmar Compañía EIRL with the purpose of creating an extra income for the project sponsor as well as providing a social and creative outlet for the community. The expectations are to increase the economic income for Felmar and to develop new projects with an established project management approach.

4.1.8. Preassigned Resources

For the Sustainable Plant Night Events Project, there will be a need for human and physical resources for its execution. The needed resources are listed in the chart below:

Chart 11. Project Preassigned Resources (Source: author of the study)

Resource type	Preassigned resource
Human resource	Project manager
	Event host
Physical resource	Venue
	Beverages
	Craft materials
	Craft tools
	Tables for crafting

4.1.9. Project Key Stakeholders

The following chart shows the project key stakeholder scale level:

Chart 12. Project Key Stakeholder Scale Level (Source: author of the study)

Scale level					
Name	Very low	Low	Mid	High	Very high
Number	0	1	3	4	5
Description	Not at all important	Slightly important	Moderately important	Very important	Extremely important

The following chart enlists the project key stakeholder and determines their responsibility, level of power and level of influence:

Chart 13. Project Key Stakeholders (Source: author of the study)

Type	Stakeholder	Name	Responsibility	Level of power (ability to influence)	Level of interest (how much is being influenced)
Primary / Internal	Project manager	Elky Mug	<p>The project manager is authorized by the sponsor to perform all necessary logistics required for the execution of the project.</p> <p>She reports the progress and risks to the sponsor.</p> <p>She coordinates all deliverables and negotiates with vendors.</p> <p>She is responsible of the overall project completion based on the sponsor's initial requirements and on the specified time and budget.</p>	5	5
	Sponsor	Michelle Felser	<p>The sponsor is responsible for the overall success and vision of the project.</p> <p>She provides payment.</p> <p>She approves the agreement negotiation with vendors and providers.</p> <p>Approval of the project charter</p> <p>She provides general requirements and expectations.</p>	5	5

	Host	N/A	<p>She is responsible for hosting the event.</p> <p>The host guides the attendees through the workshop systematically.</p> <p>She ensures that attendees enjoy themselves.</p> <p>She ensures the event stays within schedule.</p>	4	3
	Vendors and providers	N/A	<p>They provide craft, marketing and refreshment materials that abide to the specified requirements (sustainable and good quality).</p> <p>They negotiate prices and agreements.</p>	2	3
	Venue owner	N/A	<p>The venue owner provides a space that abides to the specified requirements.</p> <p>He negotiates prices and agreements.</p>	3	4
Secondary / External	Venue staff	N/A	<p>They provide high quality service to the event attendees and host the night of the event.</p>	3	3
	Attendees	N/A	<p>They confirm attendance.</p> <p>They attend the event.</p> <p>They provide payment.</p>	3	4

	Other venue customers	N/A	They provide feedback, if any.	2	2
	Costa Rican health ministry	Staff	It provides up-to-date information regarding social gathering regulations.	5	5

4.1.10. Project Approval Requirements

The project approval will be decided and signed off by the project sponsor, and the approval requirement is the completion of the project charter.

4.1.11. Project Exit Criteria

The conditions to be met in order to close or to cancel the project are the following:

The project objectives cannot be met, and the continuation of the project will not necessarily create financial benefits.

The project's assumptions have changed enough that it may not be the right project to work on.

The project can be completed, but it will not create sustainable value for the company.

Market and political conditions have changed to a degree that the sale expectations will not be met and the possibility to host social gatherings will lower due to the current pandemic risks.

Costs have risen on the project, and the schedule has slipped significantly.

There has been a significant change in the company's interest and strategy.

4.2. Scope Management Plan

The development of the scope management plan for the Plant Night Events Project documents how the project and the product scope will be defined, validated, and controlled.

According to A Guide to the Project Management Body of Knowledge (PMBOK) 6th Edition (PMI, 2017), the following inputs and tools and techniques are required to develop the scope management plan. See Figure 4 below.

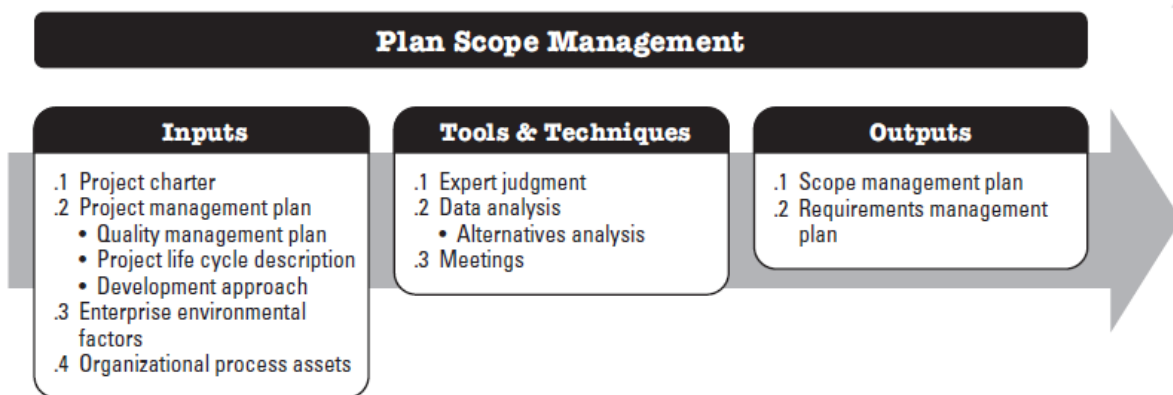


Figure 4. Plan Scope Management: Inputs, Tools & Techniques, and Outputs. Reprinted from A Guide to the Project Management Body of Knowledge (PMBOK) 6th Edition (p. 75), Project Management Institute, 2017. Project Management Institute. Copyright 2017 by Project Management Institute, Inc.

The scope management plan includes how the scope will be defined, developed, monitored, controlled, and validated. According to A Guide to the Project Management Body of Knowledge (PMBOK) 6th Edition (PMI, 2017), the components of a scope management plan include the following:

A process for preparing a project scope statement

A process that enables the creation of the WBS from the detailed project scope statement

A process that establishes how the scope baseline will be approved and maintained

A process that specifies how the formal acceptance of the completed project deliverables will be obtained

The scope management plan for the Plant Night Events Project will also include the work breakdown structure (WBS), WBS dictionary, scope verification, and scope control measures. In addition to the scope management plan, the requirement management plan was created as the second output of the plan scope management process.

Plant Night Events Project Scope Management Plan

Revision status: version 1.0

Document author: Elky Mug

Document owner: Felmar Compañía EIRL

Project: Sustainable Plant Night Events

Project manager: Elky Mug

Document approver(s): All approvers are required. Records of each approver must be maintained.

Approver name	Role
Michelle Felser	Project sponsor

NOTE: All reviewers in the list are considered required unless explicitly listed as optional.

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Revision	Date	Created by	Short description of the changes
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- 4.2.8. Work Breakdown Structure (WBS)
- 4.2.9. WBS Dictionary
- 4.2.10. Project Exclusions
- 4.2.11. Scope Validation
- 4.2.12. Scope Control

4.2.1. Introduction

Purpose

The purpose of this document is to describe how the scope for the Sustainable Plant Night Events Project will be defined, developed, monitored, controlled, and validated. This document will also include the work breakdown structure (WBS) and WBS dictionary.

4.2.2. Scope Management Approach

The creation of the project scope management plan is the starting point for all project scope management practices. The process of developing the scope management plan started with the analysis of the information contained in the project charter. For the Sustainable Plant Night Events Project, scope management will be the responsibility of the project manager. The scope of this project is defined by the scope statement, work breakdown structure (WBS), and WBS dictionary. Further roles and responsibilities for the project are defined in the following section.

4.2.3. Roles and Responsibilities

Key roles in managing the scope of this project are the responsibility of the project manager, sponsor, and team. The following chart defines the roles and responsibilities for scope management:

Chart 14. Scope Management Roles and Responsibilities (Source: author of the study)

Roles	Responsibilities
Project manager	To determine and document the project scope To measure and verify the project scope To oversee change control and facilitate the impact assessment of scope change requests To organize change control meetings To communicate and document the outcomes of change requests To update project documents upon approval of all scope changes and maintain version control
Project sponsor	Formal acceptance of the project scope statement and baseline Formal acceptance of project deliverables
Project team	To recommend the scope baseline and specifications To measure and verify the project scope To participate in impact assessments of scope change requests
Stakeholders	To contribute to the scope statement To contribute to the scope change

4.2.4. Tools and Techniques

The following tools and techniques were used to develop this section:

- Expert judgement
- Data analysis
- Meetings

4.2.5. Scope Definition

The step of the scope definition for the Sustainable Plant Night Events Project involved the development of a detailed project scope statement. This will become the foundation for future project decisions. The scope for this project was defined by detailing the requirements for each deliverable, by revising with the event host all requirements that were needed to develop a workshop for potted plants and

terrariums, and by a thorough revision of descriptions of similar workshops carried out in different venues.

Scope Statement

The project scope statement for the Sustainable Plant Night Events Project is the description of project objectives, product scope description, project deliverables, product acceptance criteria, project constraints, project assumptions, work breakdown structure (WBS), and WBS dictionary. Additionally, the scope statement includes the work that will not be performed in order to eliminate any implied but unnecessary work, which falls outside the project's scope.

Project Objectives

- To develop a sustainable event consisting of a guided workshop for assembling potted plants and building terrariums

- To develop a partnership with local venues such as bars, restaurants, and coffee shops

- To provide a social and creative outlet for the event attendees

- To provide an extra income for the project sponsor

Product Scope Description

The project includes the development of one event (the product) consisting of a guided workshop. The deliverables are described below.

4.2.6 Project Deliverables and Acceptance Criteria

The following chart describes the project deliverables and acceptance criteria:

Chart 15. Project Deliverables and Acceptance Criteria (Source: author of the study)

Deliverables	Description	Acceptance criteria
Project management	All plan components must be consolidated into an integrated project management plan.	Plan components must be developed according to A Guide to the Project Management Body of Knowledge (PMBOK) 6 th Edition.
Craft	The type of craft will be selected amongst potted plants and/or terrariums.	<p>A specific craft must be selected.</p> <p>A specific list of needed materials for the selected craft will be elaborated.</p> <p>Steps for building the selected craft will be developed.</p>
Venue	The venue can be a restaurant or a bar, and it should be appropriate to host the event.	<p>The venue must have a private spot with a capacity of at least 16 people with a minimum of a 2-meter separation between attendees. See Figure 5.</p> <p>The venue must have a valid liquor license.</p> <p>The venue must have clean facilities and be elegant.</p> <p>The venue must have the equipment to play music during the event or allow the host to set up equipment for music.</p>

Continuation of Chart 15. Project Deliverables and Acceptance Criteria

(Source: author of the study)

Deliverables	Description	Acceptance criteria
Marketing	The purpose of marketing will be to gather attendees and followers through a social media strategy.	<p>To create awareness of the event in order to gather at least 10 and up to 15 attendees on the night of the event.</p> <p>To build a community of at least 100 followers on social media in order to enhance community among individuals with a common interest in gardening, potted plants, terrariums, and sustainable gardening methods.</p> <p>To provide customer service to attendees through social media, with a minimum 1 hour response time from Monday through Sunday, from 9 am to 9pm.</p> <p>To provide reservation through social media: in order to make the reservation, the attendees must pay 100% of the cost and confirm their assistance at least 24 hours before the event.</p>
Materials	<p>This includes the materials needed for crafting and refreshments on the night of the event and any materials needed for marketing.</p> <p>The project will ensure an ethical supply chain in order to achieve the objective of developing a sustainable event.</p>	<p>Recycled or recyclable glass bowls</p> <p>Healthy plants: firm leaves, well-formed flowers, and well-developed root systems grown from compost and the usage of organic weed and pest control methods for maintenance (non-usage of chemical herbicides and toxic pesticides)</p> <p>High quality potting mix: 100% sustainable premium organic potting mix</p> <p>Printed poster: use of recycled material for paper and vegetable-based ink.</p> <p>High quality refreshments, with no plastic, that reduce waste during production.</p>

Continuation of Chart 15. Project Deliverables and Acceptance Criteria
(Source: author of the study)

Deliverables	Description	Acceptance criteria
Event	In order for the event to be a success, attendees must have an enjoyable time crafting and socializing. It is also important to create a good relationship with the venue owner in order to have the possibility to host future events.	<p>The music must be enjoyable to the majority of the attendees. Some music examples can be jazz, soft rock, classics, acoustic classics, or soft reggae roots.</p> <p>Refreshments must be prepared with care and by professional bartenders, with high quality ingredients.</p> <p>The customer service from the venue must be good; employees from the venue should always smile, greet attendees warmly when they arrive, and pay attention to their needs.</p> <p>The host must be able to connect with the attendees and make sure they have a great experience. The host must also be friendly, calm, well-spoken, and confident.</p>

The following figure shows the required 2-meter separation between attendees at the venue.

Table Layout 2-Meter Separation Requirement

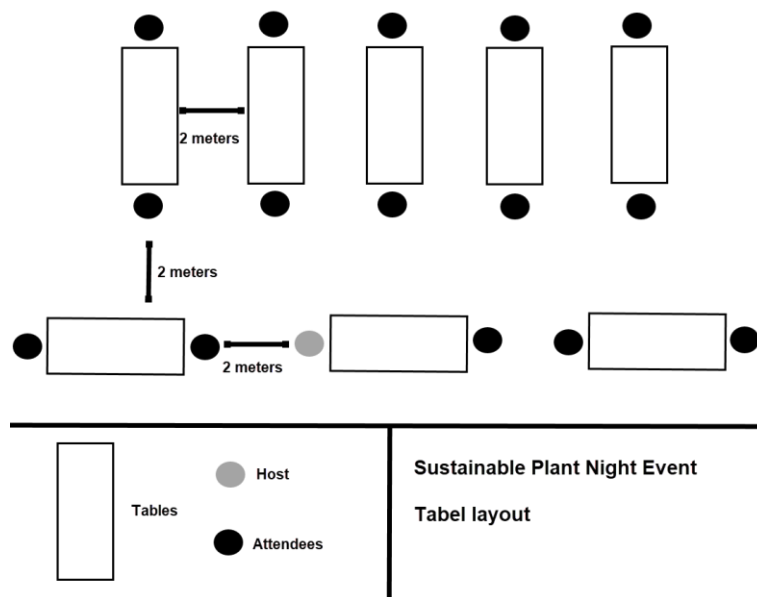


Figure 5. Project Table Layout (Source: author of the study).

4.2.7. Project Constraints and Assumptions

All project constraints and assumptions are listed in chart 16.

Chart 16. Project Assumptions and Constraints (Source: author of the study)

Assumption	Constraint
The event will take place on schedule.	The event has a 2 hour timeframe.
The selected venue will sustain the event without problems.	The venue requires a liquor license and a health ministry operations permit.
The cost of the project will not exceed the estimated budget.	The budget is \$350.
The project will offer a service of great quality as a result, according to what is requested by the project sponsor.	Law regulation in Costa Rica establishes that the event must be held in a location with the mandatory emergency exits and emergency fire plan.
All necessary services and equipment will be available when needed.	The event location must have availability for at least 15 attendees and 1 host, and it must be located in the great metropolitan area of Costa Rica.
All attendees and the host will arrive on time.	The event location must have accessible bathrooms for restricted mobility.
The attendees will enjoy the available drinks and music.	There are approximately 7 weeks to deliver the project.

4.2.8. WBS

The following figure shows the work breakdown structure for the Sustainable Plant Night Event Project.

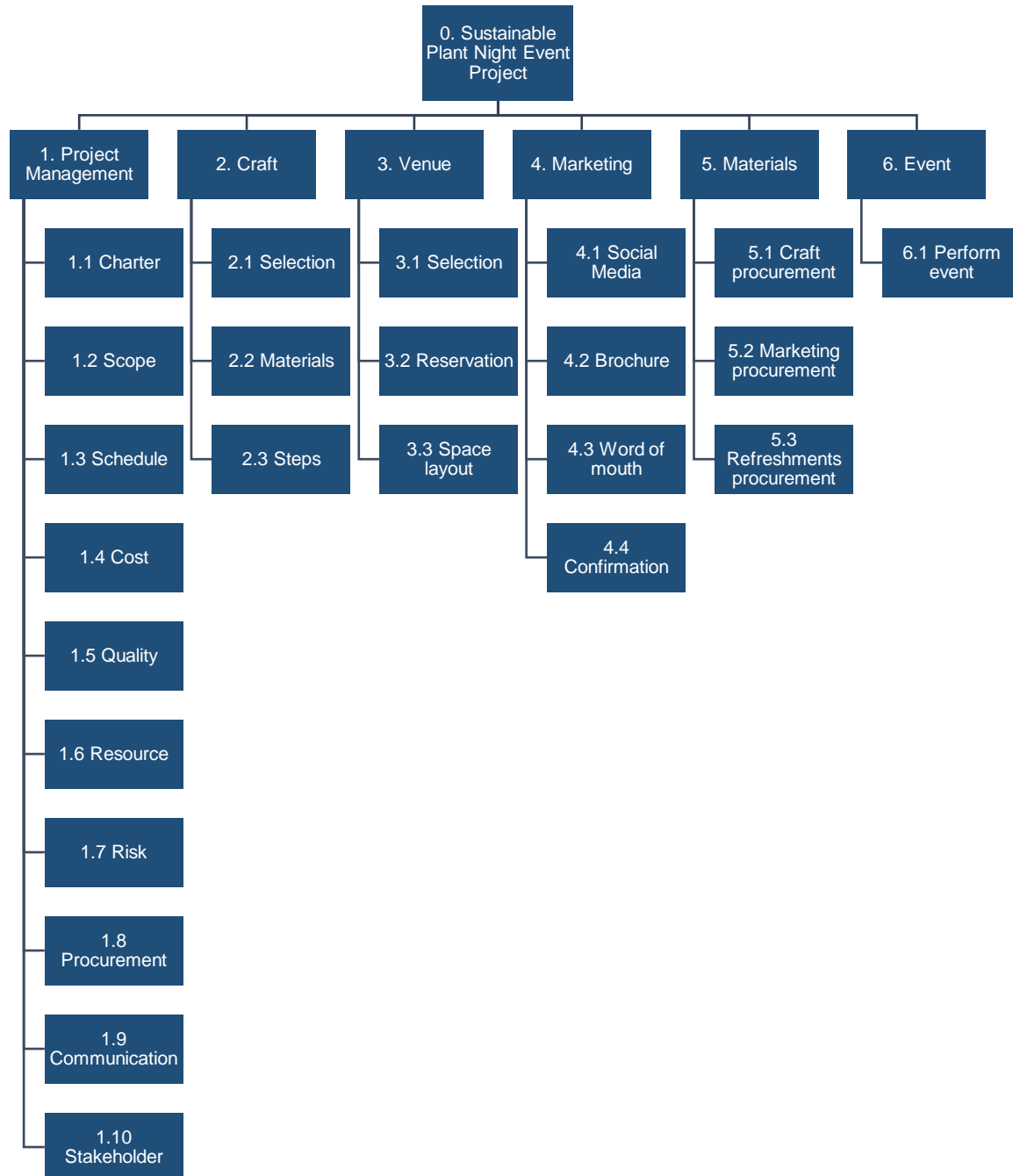


Figure 6. Project WBS (Source: author of the study).

4.2.9. WBS Dictionary

The following chart enlists the WBS Dictionary for the Sustainable Plant Night Event Project.

Chart 17. WBS Dictionary (Source: author of the study)

Level	WBS code	Element name	Description of work	Deliverables	Budget	Resources
1	1	Project management	Plan that defines the basis for project execution through sustainable event management		N/A	A laptop Relevant literature Online resources
2	1.1	Charter	Document that formally authorizes the existence of the project	Project charter	N/A	A laptop Relevant literature Online resources
2	1.2	Scope	Plan that ensures that the project includes all of the work required, and only the work required	Scope management plan Requirement management plan	N/A	A laptop Relevant literature Online resources
2	1.3	Schedule	Plan to manage the timely completion of the project	Schedule management plan	N/A	A laptop Relevant literature Online resources
2	1.4	Cost	Plan to ensure that the project is completed within the approved budget	Cost management plan	N/A	A laptop Relevant literature Online resources
2	1.5	Quality	Plan to identify the quality requirements so they are met	Quality management plan	N/A	A laptop Relevant literature Online resources
2	1.6	Resource	Plan to identify, acquire, and manage resources	Resource management plan	N/A	A laptop Relevant literature Online resources.

Continuation of Chart 17. WBS Dictionary (Source: author of the study)

Level	WBS code	Element name	Description of work	Deliverables	Budget	Resources
2	1.7	Risk	Plan to identify, analyze, respond, and monitor risks on the project	Risk management plan	N/A	A laptop Relevant literature Online resources
2	1.8	Procurement	Plan to identify the processes necessary to purchase or acquire needed products, services, or results	Procurement management plan	N/A	A laptop Relevant literature Online resources
2	1.9	Communication	Plan to ensure that the information needs of the project and its stakeholders are met	Communication management plan	N/A	A laptop Relevant literature Online resources
2	1.10	Stakeholders	Plan to identify, analyze, and manage stakeholder expectations and impact	Stakeholder management plan	N/A	A laptop Relevant literature Online resources
1	2	Craft	Define the type of craft for the event.		N/A	Expert judgement from the host
2	2.1	Selection	A selection between potted plants and/or terrariums	A decision	N/A	Expert judgement from the host
2	2.2	Materials	To create a list based on the selection	A detailed list of materials needed for the selected craft with a draft of possible vendors	N/A	A laptop Expert judgement from the host
2	2.3	Steps	To describe the steps needed for the craft on the night of the event	Detailed instructions to create the selected craft	N/A	A laptop Expert judgement from the host

Continuation of Chart 17. WBS Dictionary (Source: author of the study)

Level	WBS code	Element name	Description of work	Deliverables	Budget	Resources
1	3	Venue	A venue to host the Plant Night Events Project		N/A	A laptop Telephone Online resources
2	3.1	Selection	To select a venue, among possible venues, that fulfills the requirements	A decision An agreement	N/A	A laptop Telephone Online resources
2	3.2	Reservation	To reserve the night for the event	A date selection A reservation	N/A	A laptop Telephone Online resources
2	3.3	Space layout	To create a space layout for the event	A drawing	N/A	A laptop Sketching app Online resources
1	4	Marketing	Process of interesting potential attendees in the event		\$100	A laptop Online resources
2	4.1	Social media	Process of using social media as a marketing tool	A social media strategy		A laptop Online resources
2	4.2	Brochure	To design a brochure for the night of the event	A design for the brochure		A laptop Sketching app
2	4.3	Word of mouth	Action taken to motivate people to talk about the event	Word of mouth marketing strategy		A laptop Online resources
2	4.4	Confirmation	To confirm attendees and receive payment	A list of confirmed attendees Payment for the confirmed attendees		A laptop Telephone A bank account Online resources

Continuation of Chart 17. WBS Dictionary (Source: author of the study)

Level	WBS code	Element name	Description of work	Deliverables	Budget	Resources
1	5	Materials	Materials needed for the event		\$200	
2	5.1	Craft material procurement	To procure all materials needed for the craft	Materials needed for the number of attendees		A laptop Telephone Transportation
2	5.2	Marketing material procurement	To procure all materials needed for marketing	A printed brochure		A laptop Telephone Transportation
2	5.3	Refreshment procurement	To procure all materials needed for the refreshments	Materials for the refreshments		A laptop Telephone Transportation
1	6	Event	Event night		\$50	
2	6.1	Perform event	Development of one event in which attendees will socialize and assemble the craft	Event night		The host Venue Music

4.2.10. Project Exclusions

The items to be excluded are a sample craft and packaging.

4.2.11. Scope Validation

The scope validation process will be performed in order to formally accept the completed project deliverables. It will be performed periodically throughout the project after each deliverable is completed and has undergone the control quality process.

After each deliverable has been validated, they will be formally signed off by the project sponsor, using the template shown in the chart below:

Chart 18. Deliverable Acceptance Form (Source: author of the study)

Project title: Sustainable Plant Night Events

Date: _____

WBS code	Deliverable	Validation method	Requirement	Acceptance criteria	Status (accepted or not)	Sign off (sponsor signature)
1	Project management	Read document.	All plan components are consolidated into an integrated project management plan.			
2	Craft	Check documents.	A type of craft was selected.			
3	Venue	Check-list	An appropriate venue was selected.			
4	Marketing	Check-list	A social media marketing strategy was created.			
5	Materials	Check-list	An ethical supply chain was ensured.			
6	Event	Check-list Check social media for reviews.	A quality evening for the attendees and a good relationship with the venue owner were ensured.			

4.2.12. Scope Control

The scope control process will be performed in order to monitor the status of the project scope and manage changes to the scope baseline. Scope control will be performed throughout the project by reviewing all change requests; approving changes and managing changes to deliverables, project documents, and the project management plan; and communicating the decisions. All change requests and the resolution will be formally signed off by the project sponsor, using the template shown below:

Change Request Resolution

Project title: Sustainable Plant Night Events Date: _____

WBS ID: _____

Request:

Fill in the following chart:

Chart 19. Change Request (Source: author of the study)

New requirements	Risks/Opportunities	Changes to the schedule baseline	Changes to the cost baseline

Resolution (approved or denied): _____

Sign off (project sponsor signature): _____

Plant Night Events Project Requirement Management Plan

Revision status: version 1.0

Document author: Elky Mug

Document owner: Felmar Compañía EIRL

Project: Sustainable Plant Night Events

Project manager: Elky Mug

Document approver(s): All approvers are required. Records of each approver must be maintained.

Approver name	Role
Michelle Felser	Project sponsor

NOTE: All reviewers in the list are considered required unless explicitly listed as optional.

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4.2.2.4 Requirement Traceability Matrix

4.2.2.5 Roles and Responsibilities

4.2.2.6 Change Control

4.2.2. Requirement Management Plan

4.2.2.1. Introduction

Purpose

The purpose of this document is to describe how the Sustainable Plant Night Events project requirements will be analyzed, documented, and managed.

4.2.2.2 Requirement Gathering Process and Traceability

The requirement gathering process describes how requirements will be collected, analyzed, and documented (Coventry, 2015). The following steps, described in chart 20, will be used in order to gather requirements.

Chart 20. Gathering Requirement Steps (Source: author of the study)

Step	Name	Description	Tools and techniques	Documents
1	Collect requirements	Process of determining, documenting, and managing stakeholder requirements	Expert judgement Data gathering through interviews and meetings	Requirement document, see Chart 21. Requirement traceability matrix, see Chart 22.
2	Define scope	Process of developing a detailed description of the project	Expert judgement Decision making	Project scope statement, see Section 4.2.5 of the scope management plan
3	Create WBS	Process of subdividing project deliverables into smaller, more manageable components	Expert judgement Decomposition	WBS, see section 4.2.8 of the scope management plan
4	Validate scope	Process of formalizing the acceptance of the completed project deliverables	Inspection Decision making	Deliverable acceptance form, see Chart 18.
5	Control scope	Process of monitoring the status of the project scope and managing changes to the scope baseline	Documentation	Change request resolution, see Chart 19.

4.2.2.3 Requirement Prioritization Process

The purpose of the requirement prioritization process is to manage requirements and resources for the Sustainable Plant Night Events Project. In order to prioritize, an initial meeting will be held using the MoSCoW technique, which is “for helping to understand and manage priorities” (Messenger, 2014).

MoSCoW stands for the following:

Must have: They represent requirements that are non-negotiable for the project.

Should have: They represent requirements that are just one step below “Must have”. They are important but not vital; if left out, the project still functions.

Could have: They represent requirements that are not core for the function of the product but would be nice to have.

Would have: They represent requirements that will not be included in the project at this moment.

The prioritization level will be documented in the requirement documentation (see Chart 21), and it will be updated as needed.

Chart 21. Requirement Documentation (Source: author of the study)

Project title: Sustainable Plant Night Events

Date: _____

WBS ID	Deliverable	Requirement description	Stakeholder	Prioritization level*

Prioritization levels may be the following:

M: Must have

S: Should have

C: Could have

W: Will not have (this time)

4.2.2.4 Requirement Traceability Matrix

According to A Guide to the Project Management Body of Knowledge (PMBOK), 6th Edition (PMI, 2017), “The requirements traceability matrix is a grid that links product requirements from their origin to the deliverables that satisfy them. The implementation of a requirements traceability matrix helps ensure that each requirement adds business value by linking it to the business and project objectives”.

The requirement traceability matrix will be documented in the traceability matrix document (see Chart 22), and it will be updated as needed.

Chart 22. Requirement Traceability Matrix (Source: author of the study)

Project title: Sustainable Plant Night Events

Date: _____

WBS ID	Deliverable	Requirement description	Business needs, opportunities, goals, and objectives	Acceptance criteria	Owner	Status*

The status* may be the following:

To do

In progress

Done

Cancelled

4.2.2.5 Roles and Responsibilities

Key roles in managing the requirements of this project are the responsibility of the project manager, sponsor, and team. The following chart defines the roles and responsibilities for requirement management:

Chart 23. Key Roles and Responsibilities (Source: author of the study)

Name	Roles	Responsibilities
Elky Mug	Project manager	To determine and document requirements To measure and verify requirements To oversee change control and facilitate the impact assessment of scope change requests To organize change control meetings To communicate and document the outcomes of change requests To update project documents upon approval of all scope changes and maintain version control
Michelle Felser	Project sponsor	Formal acceptance of the project scope statement and baseline Formal acceptance of project deliverables
Team members	Project team	To recommend the scope baseline and specifications To measure and verify the project scope To participate in impact assessments of scope change requests
Vendors and providers	Stakeholders	To contribute to the scope statement To contribute to scope change

4.2.2.6 Change Control

“...any change that has the potential to impact expectations should follow a formalized change request, approval, and communication process” (Millhollan, 2008). Change control will be performed throughout the project by reviewing all change requests; approving changes and managing changes to deliverables, project documents, and the project management plan; and communicating the decisions to the relevant stakeholders. All change requests and the resolution will be formally signed off by the project sponsor, using the template shown in Chart 19.

4.3. Schedule Management Plan

The development of the schedule management plan for the Sustainable Plant Night Events Project includes the processes required to manage the timely completion of the project.

According to A Guide to the Project Management Body of Knowledge (PMBOK), 6th Edition (PMI, 2017), the following inputs and tools and techniques are required to develop the schedule management plan. See Figure 7 below.

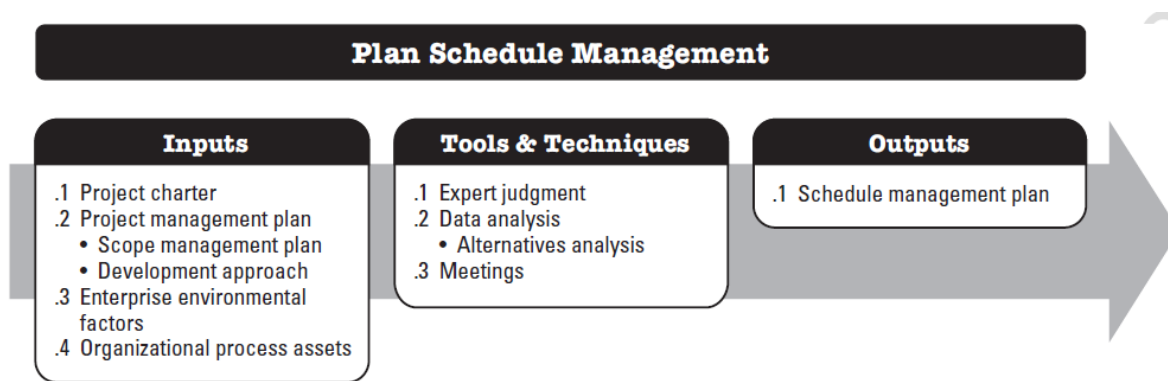


Figure 7. Plan Schedule Management: Inputs, Tools & Techniques, and Outputs. Reprinted from *A Guide to the Project Management Body of Knowledge (PMBOK) 6th Edition* (p. 75), Project Management Institute, 2017. Project Management Institute. Copyright 2017 by Project Management Institute, Inc.

The schedule management plan includes the process of establishing the policies, procedures, and documentation for planning, developing, managing, executing, and controlling the project schedule. The project schedule defines the activities required to produce the project deliverable, the resources necessary to achieve the deliverables, the sequence of the activities, and the duration of the activities.

Plant Night Events Project Schedule Management Plan

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Project: Sustainable Plant Night Events

Project manager: Elky Mug

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Approver name	Role
Michelle Felser	Project sponsor

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- 4.3.2. Schedule Management Approach
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- 4.3.4. Tools and Techniques
- 4.3.5. Activity List and Sequencing
- 4.3.6. Duration Estimates
- 4.3.7. Project Schedule and Critical Path
- 4.3.8. Schedule Control Procedure

4.3.1 Introduction

Purpose

The purpose of this document is to describe how the schedule for the Sustainable Plant Night Events Project will be planned, developed, managed, executed, and controlled.

4.3.2 Schedule Management Approach

The project manager will be responsible for ensuring the development and execution of the schedule management.

4.3.3 Roles and Responsibilities

The roles and responsibilities for schedule management are enlisted in the following table:

Chart 24. Schedule Management Roles and Responsibilities (Source: author of the study)

Role	Responsibility
Project sponsor	To provide the necessary resources in support of the project manager to carry out schedule management activities
Project manager	Overall responsibility for carrying out our successful schedule management
Project team	To support the project manager on schedule management activities

4.3.3 Tools and Techniques

The tools and techniques that will be used for this project will include the following:

Precedence diagramming method: This tool will be used to establish the logical relationship of each activity sequence in relation to the other.

Meetings: Meetings will be held with the project team to discuss the activities of the project and to determine the timelines for each activity. Meetings will also be held with people from whom information will be gathered to determine the amount of time they will have to contribute to the process.

4.3.4. Activity List and Sequencing

The following activity list identifies the actions required to produce each project deliverable for Project Management:

Chart 25. Project Management Activities (Source: author of the study)

Level	WBS code	Work package	Activity code	Activities	Predecessor	Successor	Activity duration
2	1.1	Charter	1.1.a	To develop the project charter	None	1.2.a	4 hours
2	1.2	Scope	1.2.a	To develop the scope management plan	1.1.a	1.2.b	4 hours
2	1.2	Scope	1.2.b	To develop the requirement management plan	1.2.a	1.3.a	4 hours
2	1.3	Schedule	1.3.a	To develop the schedule management plan	1.2.a and 1.2.b	1.4.a	4 hours
2	1.4	Cost	1.4.a	To develop the cost management plan	1.3.a	1.5.a	4 hours
2	1.5	Quality	1.5.a	To develop the quality management plan	1.4.a	1.6.a	4 hours
2	1.6	Resource	1.6.a	To develop the resource management plan	1.5.a	1.7.a	4 hours
2	1.7	Risk	1.7.a	To develop the risk management plan	1.6.a	1.8.a	4 hours
2	1.8	Procurement	1.8.a	To develop the procurement management plan	1.7.a	1.9.a	4 hours
2	1.9	Communication	1.9.a	To develop the communication management plan	1.8.a	1.10.a	4 hours
2	1.10	Stakeholders	1.10.a	To develop the stakeholder management plan	1.9.a	2.1.a	4 hours

The following activity list identifies the actions required to produce each project deliverable for Craft:

Chart 26. Craft Activities (Source: author of the study)

Level	WBS code	Work package	Activity code	Activities	Predecessor	Successor	Activity duration
2	2.1	Selection	2.1.a	To select between potted plants and/or terrariums for the plant night event	1.10.a	2.2.a	0.5 hours
2	2.2	Materials	2.2.a	To create a detailed list of materials needed for the selected craft with a draft of possible vendors	2.1.a	2.3.a	0.5 hours
2	2.3	Steps	2.3.a	To develop detailed instructions to create the selected craft	2.2.a	3.1.a	2 hours

The following activity list identifies the actions required to produce each project deliverable for Venue:

Chart 27. Venue Activities (Source: author of the study)

Level	WBS Code	Work Package	Activity Code	Activities	Predecessor	Successor	Activity Duration
2	3.1	Selection	3.1.a	To select a venue, among possible venues, that fulfills the requirements	2.3.a	3.1.b	4 hours
2	3.1	Selection	3.1.b	To negotiate an agreement	3.1.a	3.1.c	2 days
2	3.1	Selection	3.1.c	To sign the agreement	3.1.b	3.2.a	0.5 hours
2	3.2	Reservation	3.2.a	To select a date for the event	3.1.c	3.2.b	4 hours
2	3.2	Reservation	3.2.b	To reserve the venue	3.2.a	3.3.a	0.5 hours
2	3.3	Space layout	3.3.a	To design a space layout	3.2.b	4.1.a	8 hours

The following activity list identifies the actions required to produce each project deliverable for Marketing:

Chart 28. Marketing Activities (Source: author of the study)

Level	WBS code	Work package	Activity code	Activities	Predecessor	Successor	Activity duration
2	4.1	Social media	4.1.a	To create a social media strategy	3.3.a	4.1.b	1 week
2	4.1	Social media	4.1.b	To apply the social media strategy	4.1.a	4.2.a	28 days
2	4.2	Brochure	4.2.a	To design a brochure for the event	4.1.b	4.3.a	4 hours
2	4.3	Word of mouth	4.3.a	To create a word of mouth marketing strategy	3.3.a	4.3.b	1 day
2	4.3	Word of mouth	4.3.b	To apply the word of mouth marketing strategy	4.3.a	4.4.a	28 days
2	4.4	Confirmation	4.4.a	To receive payment for the confirmed attendees	4.1.a, 4.3.a	4.4.b	28 days
2	4.4	Confirmation	4.4.b	To confirm attendance	4.4.a	5.1.a	1 day

The following activity list identifies the actions required to produce each project deliverable for Material:

Chart 29. Material Activities (Source: author of the study)

Level	WBS code	Work package	Activity code	Activities	Predecessor	Successor	Activity duration
2	5.1	Craft material procurement	5.1.a	To procure all materials needed for the craft	4.4.b	6.1.a	2 days
2	5.2	Marketing material procurement	5.2.a	To print out the brochure	4.2.a	6.1.a	1 hour
2	5.3	Refreshment procurement	5.3.a	To procure all materials needed for the refreshments	4.4.b	6.1.a	2 days

The following activity list identifies the actions required to produce each project deliverable for Event:

Chart 30. Event Activities (Source: author of the study)

Level	WBS code	Work package	Activity code	Activities	Predecessor	Successor	Activity duration
2	6.1	Perform the event.	6.1.a	To set up the space	5.1.a, 5.2.a, 5.3.a	6.1.b	1 hour
2	6.1	Perform the event.	6.1.b	To develop one event in which attendees will socialize and assemble the craft	6.1.a	6.1.c	2 hours
2	6.1	Perform the event.	6.1.c	To close the event	6.1.b	None	1 hour

4.3.5 Duration Estimates

The WBS was used in the process of estimating activity durations, as “the process of producing accurate estimates, we should recognize that one important purpose of a WBS is to organize the work-effort of a project in such a way that it aids in estimating the total resources required by a project.” (Stenbeck, 2008). This process established the amount of time needed to complete each individual activity for the project with consideration for the estimated resources for the activities. Both the number of resources and the skill level of those resources may affect the activities’ durations. The following activity list, in chart 31, identifies the milestones and required resources per activity for Project Management.

Chart 31. Project Management Required Resources (Source: author of the study)

Milestone: To create the project management plan

Activity code	Activities	Predecessor	Successor	Required resources
1.1.a	To develop the project charter	None	1.2.a	4 hours, PM time
1.2.a	To develop the scope management plan	1.1.a	1.2.b	4 hours, PM time
1.2.b	To develop the requirement management plan	1.2.a	1.3.a	4 hours, PM time
1.3.a	To develop the schedule management plan	1.2.a and 1.2.b	1.4.a	4 hours, PM time
1.4.a	To develop the cost management plan	1.3.a	1.5.a	4 hours, PM time
1.5.a	To develop the quality management plan	1.4.a	1.6.a	4 hours, PM time
1.6.a	To develop the resource management plan	1.5.a	1.7.a	4 hours, PM time
1.7.a	To develop the risk management plan	1.6.a	1.8.a	4 hours, PM time
1.8.a	To develop the procurement management plan	1.7.a	1.9.a	4 hours, PM time
1.9.a	To develop the communication management plan	1.8.a	1.10.a	4 hours, PM time
1.10.a	To develop the stakeholder management plan	1.9.a	2.1.a	4 hours, PM time

The following activity list, in chart 32, identifies the milestones and required resources per activity for Craft.

Chart 32. Craft Required Resources (Source: author of the study)

Milestone: To select a type of craft for the event

Activity code	Activities	Predecessor	Successor	Required resources
2.1.a	To select between potted plants and/or terrariums for the plant night event	1.10.a	2.2.a	0.5 hours Host time
2.2.a	To create a detailed list of materials needed for the selected craft with a draft of possible vendors	2.1.a	2.3.a	0.5 hours Host time
2.3.a	To develop detailed instructions to create the selected craft	2.2.a	4.1.a	2 hours Host time

The following activity list, in chart 33, identifies the milestones and required resources per activity for Venue.

Chart 33. Venue Required Resources (Source: author of the study)

Milestone: To ensure a proper venue

Activity code	Activities	Predecessor	Successor	Activity duration
3.1.a	To select a venue, among possible venues, that fulfills the requirements	1.10.a	3.1.b	4 hours PM and sponsor time
3.1.b	To negotiate an agreement	3.1.a	3.1.c	2 days Sponsor time
3.1.c	To sign the agreement	3.1.b	3.2.a	0.5 hours Sponsor time
3.2.a	To select a date for the event	3.1.c	3.2.b	1 hour PM and sponsor time
3.2.b	To reserve the venue	3.2.a	3.3.a	0.5 hours Sponsor time
3.3.a	To design a space layout	3.2.b	4.1.a	8 hours PM and host time

The following activity list, in chart 34, identifies the milestones and required resources per activity for Marketing.

Chart 34. Marketing Required Resources (Source: author of the study)

Milestone: To create a social media marketing strategy

Activity code	Activities	Predecessor	Successor	Activity duration
4.1.a	To create a social media strategy	2.3.a, 3.3.a	4.1.b	1 week Sponsor and host time
4.1.b	To apply the social media strategy	4.1.a	4.2.a	28 days Sponsor and host time
4.2.a	To design a brochure for the event	4.1.b	4.3.a	4 hours Sponsor and designer
4.3.a	To create a word of mouth marketing strategy	3.3.a	4.3.b	1 day Sponsor and host time
4.3.b	To apply the word of mouth marketing strategy	4.3.a	4.4.a	28 days Sponsor and host time
4.4.a	To receive payment for the confirmed attendees	4.1.a, 4.3.a	4.4.b	28 days Sponsor time
4.4.b	To confirm attendance	4.4.a	5.1.a, 6.1.a	1 day PM time

The following activity list, in chart 35, identifies the milestones and required resources per activity for Material.

Chart 35. Required Material Resources (Source: author of the study)

Milestone: To procure materials

Activity code	Activities	Predecessor	Successor	Activity duration
5.1.a	To procure all materials needed for the craft	4.4.b	6.1.a	2 days Sponsor time
5.2.a	To print out the brochure	4.2.a	6.1.a	1 hour Sponsor time
5.3.a	To procure all materials needed for the refreshments	4.4.b	6.1.a	2 days Sponsor time

The following activity list, in chart 36, identifies the milestones and required resources per activity for Event.

Chart 36. Event Required Resources (Source: author of the study)

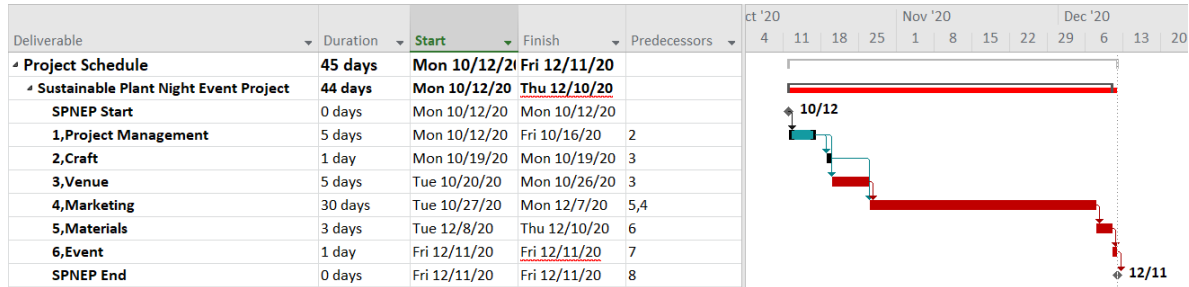
Milestone: To ensure a quality event for the attendees

Activity code	Activities	Predecessor	Successor	Activity duration
6.1.a	To set up the space	5.1.a, 5.2.a, 5.3.a	6.1.b	1 hour Host time
6.1.b	To develop one event in which attendees will socialize and assemble the craft	6.1.a	6.1.c	2 hours Host time
6.1.c	To close the event	6.1.b	None	1 hour Host time

4.3.6 Project Schedule and Critical Path

The table below is a depiction of the project schedule in a table format.

Chart 37. Project Schedule (Source: author of the study)



The critical path (shown in red in the above table), which is a “continuous string of critical activities” (Kramer, 2006), is the following:

Venue ----> Marketing ----> Materials ----> Event

4.3.7 Schedule Control Procedure

The process of monitoring the status of the project to update the project schedule and managing changes to the schedule baseline will be done by reviewing the schedule regularly and continuing to develop it as the project progresses. Any change request to the scope baseline will be analyzed to see how it affects the schedule (see Chart 19).

4.4. Cost Management Plan

The development of the cost management plan for the Sustainable Plant Night Events Project includes the processes of defining how the project costs will be estimated, budgeted, managed, monitored, and controlled.

According to A Guide to the Project Management Body of Knowledge (PMBOK), 6th Edition (PMI, 2017), the following inputs and tools and techniques are required to develop the cost management plan. See Figure 8 below.

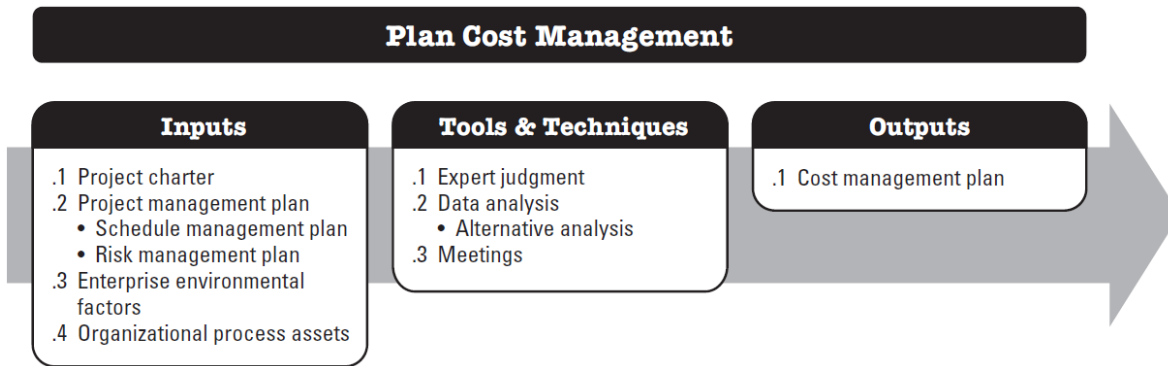


Figure 8. Plan Cost Management: Inputs, Tools & Techniques, and Outputs. Reprinted from *A Guide to the Project Management Body of Knowledge (PMBOK) 6th Edition* (p. 75), Project Management Institute, 2017. Project Management Institute. Copyright 2017 by Project Management Institute, Inc.

The cost management will also include the activity cost estimates and the project budget.

Plant Night Events Project Cost Management Plan

Revision status: version 1.0

Document author: Elky Mug

Document owner: Felmar Compañía EIRL

Project: Sustainable Plant Night Events

Project manager: Elky Mug

Document approver(s): All approvers are required. Records of each approver must be maintained.

Approver name	Role
Michelle Felser	Project sponsor

NOTE: All reviewers in the list are considered required unless explicitly listed as optional.

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[0.0]	[07/18/2020]	Project manager	<i>Initial version of the document</i>

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- 4.4.1. Introduction
- 4.4.2. Cost Management Approach
- 4.4.3. Roles and Responsibilities
- 4.4.4. Tools and Techniques
- 4.4.5. Cost Estimates
- 4.4.6. Project Budget
- 4.4.7. Cost Control Procedure

4.4.1. Introduction

Purpose

The purpose of this document is to describe how the cost for the Sustainable Plant Night Events Project will be planned, developed, managed, executed, and controlled.

4.4.2. Cost Management Approach

This project cost management plan will outline the details of costs associated with the Sustainable Plant Night Events Project. This plan will establish the estimates for each project activity, the project budget, and the cost control procedures for the project. Cost management is important to all stakeholders involved in the project because it sets the baseline for what the project is expected to cost and takes actions to ensure the project is on budget.

4.4.3. Roles and Responsibilities

The following chart enlists the roles and responsibilities for cost management:

Chart 38. Cost Management Roles and Responsibilities (Source: author of the study)

Role	Responsibility
Project sponsor	To provide the necessary resources in support of the project manager to carry out cost management activities
Project manager	Overall responsibility for carrying out our successful cost management
Project team	To support the project manager on cost management activities

4.4.4 Tools and Techniques

The following tools and techniques will be used:

Bottom up estimating: It is a method of estimating a work component. In this case, the individual resources for each activity were estimated. The detailed cost was then summarized to the higher level of deliverables.

Expert judgement: Expert judgement will provide valuable insight about the costs related to marketing and building potted plants and terrariums.

Meetings: Meetings will be held to develop the cost management plan with all stakeholders who have responsibilities for the project cost.

4.4.5 Cost Estimates

The summary of resources for the activity cost estimates is shown in the following table. The currency used is the United States Dollar (\$). The hourly wages come up to \$0 for this project because each resource has agreed to invest time for it.

Chart 39. Project Resource Cost (Source: author of the study)

Resource	Cost (\$)
Project manager hours	\$0
Host hours	\$0
Sponsor hours	\$0
Brochure design	\$100
Brochure printout	\$20
Craft materials	\$18 per attendee, \$180 for a minimum of 10 attendees
Event	\$50

4.4.6 Project Budget

To determine the budget for this project, the following tools and techniques were used:

Expert judgement: In the project team, there was one member with experience in estimating project budgets that, from previous experiences, was able to estimate the cost of resources.

Cost aggregation: Cost estimates were aggregated by work package in accordance with the project's WBS and, ultimately, the entire project.

Reserve analysis: The cost estimates for this project include contingency reserves to account for cost uncertainty and management reserves for unforeseen work that is within the scope of the project.

The contingency reserve for this project is 3% of the estimated cost of project management, craft, and venue deliverables. This percentage is low, since the identified risks for these deliverables are low. The contingency reserve for marketing, materials, and event deliverables for this project is 10% of the estimated cost of project management and craft deliverables. This percentage is high, since there are many identified risks and unknowns regarding procurement and agreements.

The management reserve is 5% of the total cost estimate for the project to cover for unforeseen management work. The following chart shows the reserve percentages for each deliverable:

Chart 40. Contingency and Management Reserves (Source: author of the study)

Deliverable code	Deliverable name	Contingency reserve (%)	Management reserve (%)
1	Project management	3	5
2	Craft	3	
3	Venue	3	
4	Marketing	10	
5	Materials	10	
6	Event	10	

The total project budget chart is shown in the following chart:

Chart 41. Project Budget (Source: author of the study)

Deliverable code	Deliverable name	Cost (\$)	Total project cost (\$)	Total contingency reserve (\$)	Management reserve (\$)	Cost baseline (\$)	Project budget (\$)
1	Project management	0	350	35	17.5	350	402.5
2	Craft	0					
3	Venue	0					
4	Marketing	100					
5	Materials	200					
6	Event	50					

4.4.7. Cost Control Procedure

In keeping with this project scope baseline and ensuring value for all stakeholders, the following steps will be taken to ensure this project stays within budget:

- **Project and scope management:** The project will be meticulously monitored, and activities in the work packages will be recorded to ensure completion. All efforts will be employed to ensure that works to be done and those completed are proportionate to the budget. Requests for change in the project scope will be processed through the right channel to avoid any possible scope creeping. See Chart 19.
- **Communication and accountability:** Meetings will be held to stay up to date with the project progress and to keep the team informed at all times. It would also provide a mechanism for feedback and status reports on the project so that corrective or supportive measures can be taken at the shortest time. An important part of staying on budget is to make sure all team members are also aware of the current budget status. Keep the project team informed of the project budget forecast.
- **Ongoing budget forecast and review:** The budget will be constantly revisited to keep on track and minimize budget overruns. Similarly, the resource usage will be monitored to ensure that human resources are fully utilized in the right capacity: for instance, the project manager will review the number of people currently working on the project and the future resource requirements. “Regularly revisiting the resource

forecast will help keep your project budget on track” (Alexander, 2017) and ensure the optimal deployment of the project resources.

- Earned value analysis (EVA): according to A Guide to the Project Management Body of Knowledge (PMBOK), 6th Edition (PMI, 2017), the EVA “compares the performance measurement baseline to the actual schedule and cost performance”. The use of EVA for the Sustainable Plant Night Event Project will develop and monitor three key dimensions for each work package. This will be performed once at the beginning of the project and once after the completion of each work package.

Planned value (PV): authorized budget assigned to scheduled work.

Earned value (EV): measure of work performed expressed in terms of the budget authorized for that work.

Actual cost (AC): realized cost incurred for the work performed on an activity during a specific time period.

- Variance analysis: according to A Guide to the Project Management Body of Knowledge (PMBOK), 6th Edition (PMI, 2017), variance analysis “is the explanation (cause, impact, and corrective actions) for cost ($CV = EV - AC$), schedule ($SV = EV - PV$), and variance at completion ($VAC = BAC - EAC$) variances”. This will be performed once after the after the completion of each work package, this analysis will allow the project team to determine the cause and degree of variation to the original cost baseline and decide whether corrective or preventive actions are required.

4.5. Quality Management Plan

The development of the quality management plan for the Sustainable Plant Night Events Project includes the processes of identifying quality requirements for the project and its deliverables and documenting how the project will demonstrate compliance with quality requirements.

According to A Guide to the Project Management Body of Knowledge (PMBOK), 6th Edition (PMI, 2017), the following inputs and tools and techniques are required to develop the quality management plan. See Figure 9 below.

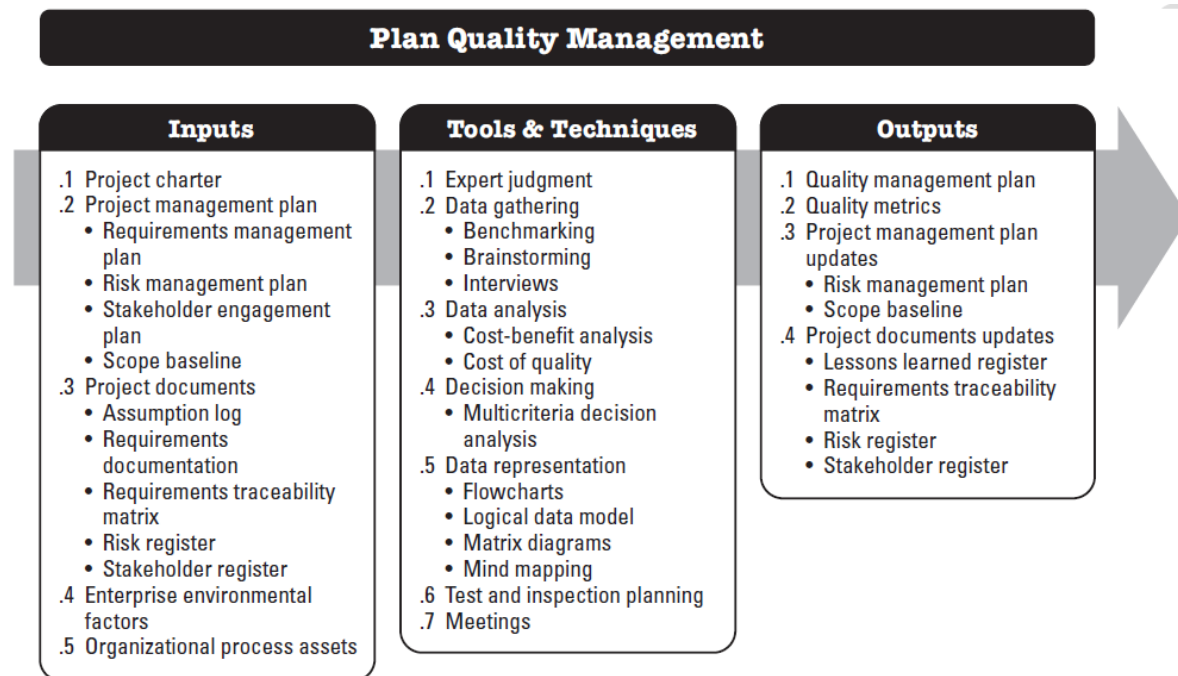


Figure 9. Plan Quality Management: Inputs, Tools & Techniques, and Outputs. Reprinted from A Guide to the Project Management Body of Knowledge (PMBOK) 6th Edition (p. 75), Project Management Institute, 2017. Project Management Institute. Copyright 2017 by Project Management Institute, Inc.

Plant Night Events Project Quality Management Plan

Revision status: **version 1.0**

Document author: Elky Mug

Document owner: Felmar Compañía EIRL

Project: Sustainable Plant Night Events

Project manager: Elky Mug

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Approver name	Role
Michelle Felser	Project sponsor

NOTE: All reviewers in the list are considered required unless explicitly listed as optional.

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To request a change to this document, contact the document author or owner.

Changes to this document are summarized in the following table:

Revision	Date	Created by	Short description of the changes
[0.0]	[07/19/2020]	Project manager	<i>Initial version of the document</i>

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- 4.5.2. Quality Management Approach
- 4.5.3. Roles and Responsibilities
- 4.5.4. Tools and Techniques
- 4.5.5. Stakeholder Analysis and Quality Requirements
- 4.5.6. Key Factors Related to Quality
- 4.5.7. Metrics and Quality Baseline
- 4.5.8. Quality Activities Matrix

4.5.1 Introduction

Purpose

The purpose of this document is to describe how applicable procedures and guidelines will be implemented to achieve the quality objectives for the Sustainable Plant Night Events Project. This document will also include the activities and resources necessary for the project team to achieve the quality objectives.

The objectives of this quality management plan are the following:

To identify the quality requirements for the Sustainable Plant Night Events Project

To document how the project will demonstrate compliance with quality requirements

4.5.2. Quality Management Approach

The quality management approach for the Sustainable Plant Night Events Project will ensure that quality is planned and that it meets the quality objectives. Requirements will be defined by the project sponsor. The project manager will define and document all project quality requirements. Metrics will be established and used to measure quality throughout the project life-cycle. The project manager will be responsible for working with the project team to define these metrics, conduct measurements, and analyze results. Quality improvements will be identified by any member of the project team, and each recommendation will be reviewed to determine if it should be implemented. If any improvement or change is implemented, the project manager will update all pertinent project documentation.

4.5.3. Roles and Responsibilities

The following chart enlists the roles and responsibilities for quality management:

Chart 42. Quality Management Roles and Responsibilities (Source: author of the study)

Roles	Responsibilities
Project manager	To determine and document the project scope To measure and verify the project scope To oversee change control and facilitate the impact assessment of scope change requests To organize change control meetings To communicate and document the outcomes of the change requests To update project documents upon approval of all scope changes and maintain version control To help the project team define and prioritize requirements To manage quality assurance activities To manage quality control and quality improvement activities
Project sponsor	To help define the scope statement To finance the project To provide the project team with all necessary information To help define requirements To help define standards Formal acceptance of the project scope statement and baseline Formal acceptance of project deliverables
Project team	To recommend the scope baseline and specifications To measure and verify the project scope To participate in impact assessments of scope change requests To understand and prioritize requirements To develop quality assurance activities To develop quality control and quality improvement activities
Vendors and providers and the venue owner	To contribute to the scope statement To contribute to scope change

4.5.4. Tools and Techniques

The following tools and techniques will be used to develop the quality management plan:

Brainstorming: This technique will be used to gather data creatively from the project team to develop the quality management plan.

Matrix diagrams for data representation: These tools will be used to help find the strength of relationships among different factors, causes, and objectives that exist between the rows and columns that form the matrix.

Meetings: The project team will hold planning meetings to develop the quality management plan.

4.5.5. Stakeholder Analysis and Quality Requirements

In this section, the stakeholders of the Sustainable Plant Night Event Project will be identified and analyzed regarding their impact, interest, power, and influence.

Seven main stakeholders have been identified:

The project manager

The project sponsor

The host

Vendors and providers

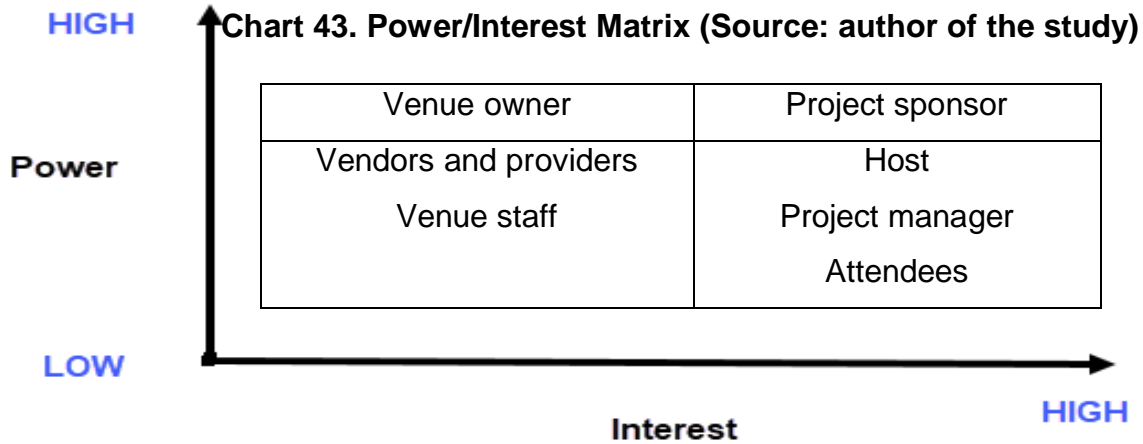
The venue owner

Attendees

Venue staff

Power/Interest Analysis

The following chart shows the power/interest matrix for the seven main stakeholders:



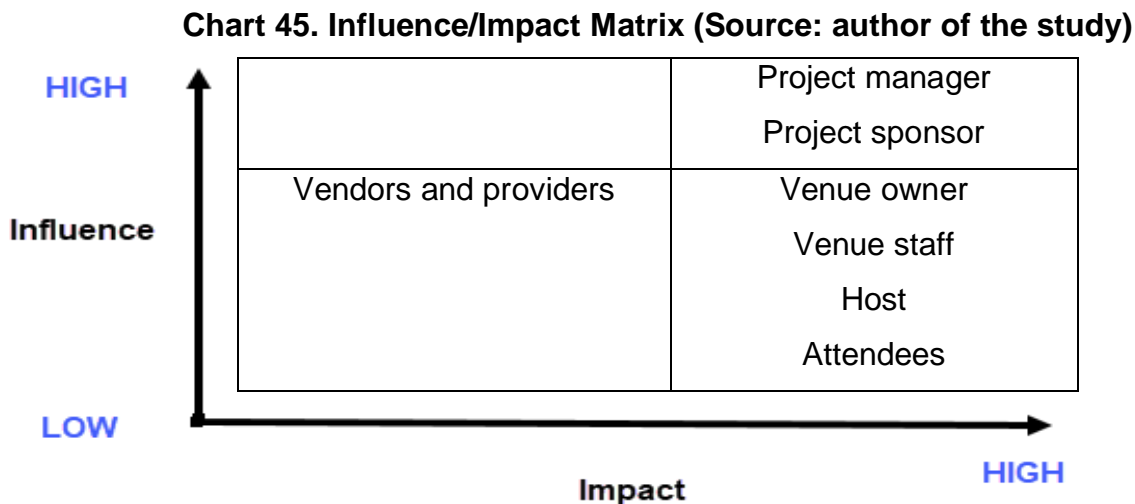
The following chart details the power/interest analysis for the seven main stakeholders:

Chart 44. Power/Interest Analysis (Source: author of the study)

	Stakeholders	Power	Interest
High power / High interest	Project sponsor	The project sponsor has the power over the project's development.	Given that the project comes with economic and intellectual benefits, she has a high interest in the success of the project.
High power / Low interest	Venue owner	The venue owner has the power to cancel the event.	He/She has a low interest in the success of the project, given that there are no major benefits from the outcome.
Low power / High interest	Project manager Host Attendees	They have low power over the project's development.	They have a high interest in the success of the project given its intellectual and economic benefits, and in the case of the attendees, they have a high interest in attending and enjoying the event.
Low power / Low interest	Vendors and providers Venue staff	They have no power over the project's strategies or decisions.	They have no interest on the outcome of the project.

Influence/Impact Analysis

The following chart shows the influence/impact matrix for the seven main stakeholders:



The following chart details the influence/impact analysis for the seven main stakeholders:

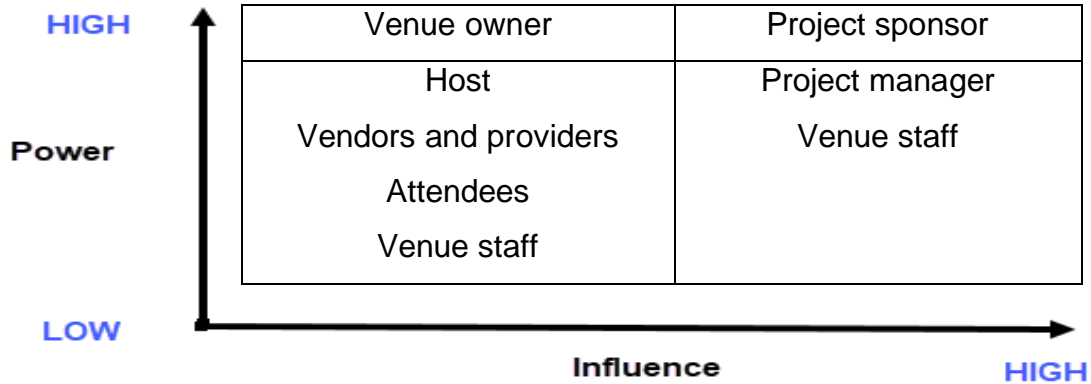
Chart 46. Influence/Impact Analysis (Source: author of the study)

	Stakeholders	Influence	Impact
High influence / High impact	Project manager Project sponsor	Both the project manager and project sponsor have a high influence over the decisions and development of the project.	Both can highly impact the project through support, and the project sponsor can highly impact the project through funding.
High influence / Low impact	NA	NA	NA
Low influence / High impact	Venue owner and venue staff	They have low influence over strategic decisions and development.	They can highly impact the success of the project through support.
	Host	She has low influence over strategic decisions and development.	She can highly impact the quality of the event.
	Attendees	They have low influence over strategic decisions and development.	They can highly impact the quality of the event.
Low influence / Low impact	Vendors and providers	They have very low influence over project strategies.	They have very low impact over project success.

Power/Influence Analysis

The following chart shows the power/influence matrix for the seven main stakeholders:

Chart 47. Power/Influence Matrix (Source: author of the study)



The following chart details the power/influence analysis for the seven main stakeholders:

Chart 48. Power/Influence Analysis (Source: author of the study)

	Stakeholders	Power	Influence
High power / High influence	Project sponsor	The project sponsor has the power over the project's development.	The project sponsor has a high influence over the decisions and development of the project.
High power / Low influence	Venue owner	The venue owner has the power to cancel the event.	He has a low influence over the strategic decisions and development.
Low power / High influence	Project manager	She has low power over the project's development.	The project manager has a high influence over the decisions and development of the project.
Low power / Low influence	Host	The host has low power over the project's development.	She has a low influence over the strategic decisions and development.
	Vendors and providers and venue staff	They have no power over the project's strategies or decisions.	They have very low influence over project strategies.
	Attendees	They have no power over the project's strategies or decisions.	They have very low influence over project strategies.

Requirements

The project team used the MoSCoW technique in order to prioritize and manage priorities; see the chart below.

Chart 49. Requirement Documentation (Source: author of the study)

Project title: Sustainable Plant Night Events

Date: 2020/07/19

WBS code	Deliverable	Requirement description	Prioritization level* (M, S, C, W)
1	Project management	To ensure that all plan components are consolidated into an integrated project management plan according to A Guide to the Project Management Body of Knowledge (PMBOK), 6th Edition	M
2	Craft	A specific craft must be selected.	M
		A specific list of needed materials for the selected craft will be elaborated.	M
		Steps for building the selected craft will be developed.	M
3	Venue	The venue must have a private spot with a capacity of at least 16 people with a minimum 2 meter separation between attendees.	M
		The venue must have a liquor license.	M
		The venue must have clean facilities and be elegant.	M
		The venue must have the equipment to play music during the event or allow the host to set up equipment for music.	S
4	Marketing	To create awareness of the event in order to gather at least 10 and up to 15 attendees on the night of the event	M
		To build a community of at least 100 followers on social media in order to enhance community among individuals with a common interest in gardening, potted plants, terrariums, and sustainable gardening methods	S
		To provide customer service to attendees through social media, with a minimum 1 hour response time from Monday through Sunday, from 9 am to 9pm	S

Continuation of Chart 49. Requirement Documentation (Source: author of the study)

Project title: Sustainable Plant Night Events

Date: 2020/07/19

WBS code	Deliverable	Requirement description	Prioritization level* (M, S, C, W)
4	Marketing	To provide reservation through social media: in order to make the reservation, the attendees must pay 100% of the cost and confirm their assistance at least 24 hours before the event.	M
5	Materials	Recycled or recyclable glass bowls	S
		Healthy plants: firm leaves, well-formed flowers, and well-developed root systems grown from compost and the usage of organic weed and pest control methods for maintenance (non-usage of chemical herbicides and toxic pesticides)	M
		High quality potting mix: 100% sustainable premium organic potting mix Printed poster: use of recycled material for paper and vegetable-based ink	M, S
		High quality refreshments, with no plastic, that reduce waste during production	M
6	Event	The music must be enjoyable to the majority of the attendees. Some music examples can be jazz, soft rock, classics, acoustic classics, or soft reggae roots.	S
		Refreshments must be prepared with care and by professional bartenders, with high quality ingredients.	S
		The customer service from the venue must be good. Employees from the venue should always smile, greet attendees warmly when they arrive, and pay attention to their needs.	M
		The host must be able to connect with the attendees and make sure they have a great experience. The host must also be friendly, calm, well-spoken, and confident.	S

Prioritization levels may be the following:

M: Must have

S: Should have

C: Could have

W: Will not have (this time)

4.5.6. Key Factors Related to Quality

The key factors related to quality for the Sustainable Plant Night Event Project are listed in the following chart:

Chart 50. Key Factors Related to Quality (Source: author of the study)

Factor	Factor definition	Quality objective
Project management plan	Planning for project management is fundamental for achieving project quality.	To develop a project management plan that will define the basis for project execution through sustainable event management by prioritizing resources and ensuring their efficient use and set the scope, schedule, and budget accurately from the start
Stakeholder engagement	Involving stakeholders and working with them based on their needs, expectations, interests, and potential impact on the project will allow the project manager to increase support and minimize resistance from them. See Section 4.10.	To ensure stakeholder engagement
Attendee satisfaction	Unsatisfied attendees would result in project failure. Guaranteeing at least 80% attendee satisfaction would comply with the project's scope.	To obtain 80% attendee satisfaction
Community build	Building community for people with similar interests in gardening, potted plants, terrariums, and sustainable gardening methods, both on social media as well as during the events, is one of the main purposes of this project.	To build a community of at least 100 followers on social media, including attendees.

4.5.7. Metrics and Quality Baseline

The metrics and quality baseline for the Sustainable Plant Night Event Project are shown in the following chart:

Chart 51. Metrics and Quality Baseline (Source: author of the study)

Factor	Metrics	Metric definition	Expected outcome/result	Measurement frequency	Responsible
Project management plan	Plan process completion	The project management plan consists of 10 different plan management processes, and requires inputs, tools and techniques, and outputs.	All plan processes will include the necessary inputs, tools and techniques, and outputs.	At the beginning of the project, at the middle, and after delivery	Project manager
Stakeholder engagement	Stakeholder satisfaction	Measurement of stakeholder perceptions of the project through a survey	The survey will provide proof that stakeholders will be overall satisfied with the project outcomes. It is expected that their satisfaction	At the beginning of the project, at the middle, and after delivery.	Project sponsor
Attendee satisfaction	Number of good reviews	A good review will consist of at least 4 out of 5 stars on social media	Good reviews will provide proof of the attendees' satisfaction.	After the delivery of the project	Project team
Community build	Number of followers	Number of single profile followers on social media	The number of followers will ensure an accurate number of community build.	After the delivery of the project	Project team

4.5.8. Quality Activity Matrix

The following chart shows the quality activity matrix for the Sustainable Plant Night Event Project:

Chart 52. Quality Activity Matrix (Source: author of the study)

Deliverable	Requirement	Managing and control activities	Frequency	Responsible
Project management	To ensure that all plan components are consolidated into an integrated project management plan according to A Guide to the Project Management Body of Knowledge (PMBOK), 6th Edition	Manage: To conform and organize the planning team To coordinate documentation efforts	At the beginning of the project and prior to each process of the document (There are 10 processes)	Project manager
		Control: To verify that the document has all required processes To review that each process contains all necessary information	At the beginning of the project and prior to each process of the document(There are 10 processes)	Project team
Craft	A specific craft must be selected.	Manage: To coordinate documentation efforts	Once	Host
		Control: To verify that the document has the necessary information	Once	Project manager
	A specific list of needed materials for the selected craft will be elaborated.	Manage: To coordinate documentation efforts	Once	Host
		Control: To verify that the document has the necessary information (list of materials)	Once	Project manager
	Steps for building the selected craft will be developed.	Manage: To coordinate documentation efforts	Once	Host
		Control: To verify that the document has the necessary information (detailed steps)	Once	Project manager

Continuation of Chart 52. Quality Activity Matrix. (Source: author of the study)

Deliverable	Requirement	Managing and control activities	Frequency	Responsible
Venue	The venue must have a private spot with a capacity of at least 16 people with a minimum 2 meter separation between attendees.	Manage: To coordinate and schedule the venue inspection	As many times as needed before selecting a venue	Project manager
		Control: To verify that the venue has the minimum needed capacity	As many times as needed before selecting a venue	Project sponsor
	The venue must have a liquor license.	Manage: To coordinate and schedule the venue inspection	As many times as needed before selecting a venue	Project manager
		Control: To verify that the venue has a liquor license	As many times as needed before selecting a venue	Project sponsor
	The venue must have clean facilities and be elegant.	Manage: To coordinate and schedule the venue inspection	As many times as needed before selecting a venue	Project manager
		Control: To verify that the venue has clean facilities and is elegant	As many times as needed before selecting a venue	Project sponsor
	The venue must have the equipment to play music during the event or allow the host to set up equipment for music.	Manage: To coordinate and schedule the venue inspection	As many times as needed before selecting a venue	Project manager
		Control: To verify that the venue has the equipment or allows the host to set up equipment	As many times as needed before selecting a venue	Project sponsor
		Control: To verify that the host is prepared	Once before the event	Host

Continuation of Chart 52. Quality Activity Matrix (Source: author of the study)

Deliverable	Requirement	Managing and Control activities	Frequency	Responsible
Marketing	To create awareness of the event in order to gather at least 10 and up to 15 attendees on the night of the event	Manage: To conform and organize marketing efforts. To coordinate documentation efforts	At the beginning of the project	Project manager
		Control: To verify that there are at least some confirmed attendees for the Plant Night Event Project	Once before the event	Host
	To build a community of at least 100 followers on social media in order to enhance community among individuals with a common interest in gardening, potted plants, terrariums, and sustainable gardening methods	Manage: To conform and organize social media strategy efforts To coordinate documentation efforts	At the beginning of the project	Project manager
		Control: To verify that there are at least 100 followers on social media	Once after the delivery	Project manager
	To provide customer service to attendees through social media, with a minimum 1 hour response time from Monday through Sunday, from 9 am to 9pm	Manage: To conform and organize customer service efforts To coordinate documentation efforts	At the beginning of the project	Project manager
		Control: To verify that messages are being answered in less than 1 hour and within the established hours	Every other day once the channel is open and up until the night of the event	Host
	To provide reservation through social media: in order to make the reservation, the attendees must pay 100% of the cost and confirm their assistance at least 24 hours before the event.	Manage: To conform and organize reservation efforts To coordinate documentation efforts	At the beginning of the project	Project manager
		Control: To verify that the cost is being paid before reservation	Every time a reservation is requested and made	Host

Continuation of Chart 52. Quality Activity Matrix (Source: author of the study)

Deliverable	Requirement	Managing and Control activities	Frequency	Responsible
Materials	Recycled or recyclable glass bowls	Manage: To conform and organize sustainability efforts To coordinate documentation efforts	At the beginning of the project	Project manager
		Control: To verify that procured bowls are made of recycled or recyclable glass through labeling	Once during the procurement process and once upon delivery	Host
	Healthy plants: firm leaves, well-formed flowers, and well-developed root systems grown from compost and the usage of organic weed and pest control methods for maintenance (non-usage of chemical herbicides and toxic pesticides).	Manage: To conform and organize sustainability efforts To coordinate documentation efforts	At the beginning of the project	Project manager
		Control: To verify that plants are healthy through labeling and observation	Once during the procurement process and once upon delivery	Host
	High quality potting mix: 100% sustainable premium organic potting mix Printed poster: use of recycled material for paper and vegetable-based ink	Manage: To conform and organize sustainability efforts To coordinate documentation efforts	At the beginning of the project	Project manager
		Control: To verify that the potting mix is high quality and the printed poster used recycled material and vegetable-based ink, through labeling	Once during the procurement process and once upon delivery	Host
	High quality refreshments, with no plastic, that reduce waste during production	Manage: To conform and organize sustainability efforts To coordinate documentation efforts	At the beginning of the project	Project manager
		Control: To verify there is no plastic being used and waste reduction is applied through observation	Once during refreshment production	Host

Continuation of Chart 52. Quality Activity Matrix (Source: author of the study)

Deliverable	Requirement	Managing and Control activities	Frequency	Responsible
Event	The music must be enjoyable to the majority of the attendees. Some music examples can be jazz, soft rock, classics, acoustic classics, or soft reggae roots.	Manage: To conform and organize music efforts	At the beginning of the project	Project manager
		Control: To verify there is a playlist and equipment ready	Once before the event	Host
	Refreshments must be prepared with care and by professional bartenders, with high quality ingredients.	Manage: To conform and organize refreshment efforts To coordinate documentation efforts	At the beginning of the project	Project manager
		Control: To verify bartenders are experienced and understand the requirements	Once before the event	Host
	The customer service from the venue must be good. Employees from the venue should always smile, greet attendees warmly when they arrive, and pay attention to their needs.	Manage: To conform and organize venue customer service efforts To coordinate documentation efforts	At the beginning of the project	Project manager
		Control: To verify that the venue has good customer service	Once before the event	Host
	The host must be able to connect with the attendees and make sure they have a great experience. The host must also be friendly, calm, well-spoken, and confident.	Manage: To conform and organize host preparation efforts To coordinate documentation efforts	At the beginning of the project	Project manager

4.6. Resource Management Plan

The development of the resource management plan for the Sustainable Plant Night Events Project includes the processes of defining how to estimate, acquire, manage, and use team and physical resources.

According to A Guide to the Project Management Body of Knowledge (PMBOK), 6th Edition (PMI, 2017), the following inputs and tools and techniques are required to develop the resource management plan. See Figure 10 below.

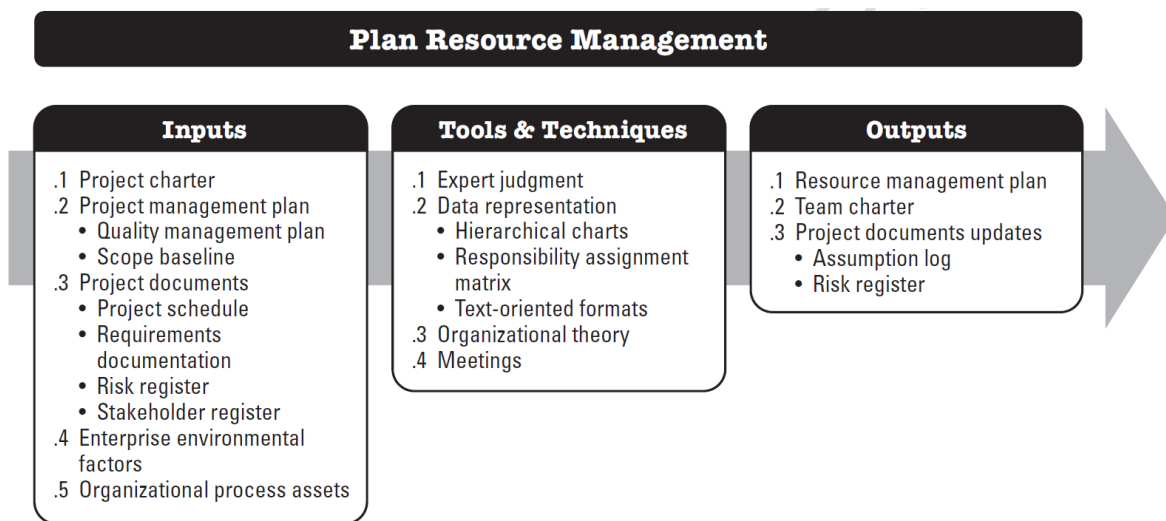


Figure 10. Plan Resource Management: Inputs, Tools & Techniques, and Outputs. Reprinted from A Guide to the Project Management Body of Knowledge (PMBOK) 6th Edition (p. 312), Project Management Institute, 2017. Project Management Institute. Copyright 2017 by Project Management Institute, Inc.

Plant Night Events Project Resource Management Plan

Revision status: **version 1.0**

Document author: Elky Mug

Document owner: Felmar Compañía EIRL

Project: Sustainable Plant Night Events

Project manager: Elky Mug

Document approver(s): All approvers are required. Records of each approver must be maintained.

Approver name	Role
Michelle Felser	Project sponsor

NOTE: All reviewers in the list are considered required unless explicitly listed as optional.

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4.6.1. Introduction

Purpose

The purpose of this document is to document the methods to identify, acquire, develop, and manage the human resources necessary to successfully complete the Sustainable Plant Night Event Project, and it will supplement the overall project management plan. This resource management plan is intended to be a living document, reviewed and updated as needed.

4.6.2. Resource Management Approach

Human resource management is one of the most complex areas, as people are unpredictable; can give rise to unexpected conflict; the level of their moral can go up or down; and also, for either personal or professional reasons, some may leave the project in an unplanned manner. Also, “every time a new project or program is developed, the human configuration of the organization must change” (Huemann, et.al). Taking all those aspects into consideration, the resource management plan integrates the ways to be followed by the project manager to ensure an optimal teamwork performance.

According to Psychologist Bruce Tuckman’s theory, the path that most teams follow on their way to high performance has five stages, which are: forming, storming, norming, performing, and adjourning (PMI, 2017).

Team Performing Stage Management Process

Given that the members of this particular project team have already worked together in previous Felmar projects, the team is at the performing stage. The performing stage takes place when the team functions as a well-organized unit. They are also interdependent and work through issues smoothly and effectively. During this stage

of team performance, it is important for the project manager to focus on the delegation of work and on future team building. Less supervision is required.

Conflict Management

According to Guan (2007), conflicts on projects are often caused because of levels of stress, lack of information, personal differences, role conflicts, and limited resources. Although good planning and communication and team building can reduce the amount of conflict, it can still emerge. The project manager is responsible for managing any conflict that can result within or that can affect the project team or project success. The effectiveness of a conflict resolution approach depends on the situation. The challenge for the project manager is to maintain the right balance and understand the dynamics of the conflicts to be able to establish an environment of respect and engagement into the project objectives. Communicating effectively and partnering with the team will build a level of trust and minimize the risk of conflicts. Where issues cannot be resolved informally, raising it and documenting it on an issue log will bring it to management attention to assist in resolving the problem; see Chart 53. Some applicable techniques for resolving conflict situations can be influencing and collaborating, which are approaches a PM can use to influence the team and stakeholders by applying listening skills, communication skills, and building trusting relationships. In certain cases, where a quick solution is required, pushing somehow the situation may be an acceptable option. A PM is responsible for finding the suitable technique for any conflict that arises along the project.

Issue Management Log

Project name: _____

Project manager name: _____

Chart 53. Issue Log (Source: author of the study)

ID	Status*	Priority**	Issue description	Owner	Escalation needed (Y/N)?	Impact

*Status: open, work in progress, or closed

**Priority: critical, high, medium, or low

Virtual Team Management Process

For this particular project, virtual meetings and offsite work are necessary. To ensure an appropriate team virtual management process, it is important to take the following measures:

- Provide clear and detailed deliverables: All team members are aware of their responsibilities, and inputs provide more detailed descriptions of the tasks with examples of what the final result should look like. This will give the team the freedom to execute with a vision and avoid any potential misunderstandings.
- Clear and well understood norms and behavior: To be able to manage the social dynamics, everyone knows what is expected of them and what is expected of the team.
- Coordinate one-on-one virtual meetings and/or virtual team meetings: This meetings are to be regularly scheduled to ensure the interaction between the PM

and each of the team members. These meetings are an opportunity for the PM to lead, to inspire, influence, motivate, coach, listen, solve problems, make decisions, and create an environment where employees feel energized. The PM will define the meeting frequencies and the approach or objectives: technical, organizational, or both. As a leader, it is critical to be able to have open and honest conversations with your staff about their jobs, their performance, conflicts, and development opportunities. There are several communication tools/apps useful for the meetings.

- Continuous and efficient communication: A proper communication planning will be established to allow multiple communication tools to be used to contact the right person for the situation. See Section 4.9 of this project management plan.

4.6.3. Roles and Responsibilities

The roles and responsibilities for resource management are shown in the following chart:

Chart 54. Resource Management Roles and Responsibilities (source: author of the study)

Roles	Responsibilities
Project sponsor	Formal acceptance of the resource management plan The project sponsor is responsible for providing financial resources.
Project manager	To determine and document the project resource management plan To evaluate the performance of all project team members and communicate their performance to the project sponsor The project manager is responsible for acquiring human resources for the project through coordination with the project sponsor.
Host	To participate in meetings To contribute in decision making processes
Graphic designer	To participate in meetings

4.6.4. Tools and Techniques

Data representation: A hierarchical project organization chart will assist the project team in identifying and documenting key project team members, management, and other stakeholders. The chart will help to visually display the project domain including project team members and sponsors.

Responsibility assignment matrix: A RAM shows the project resources assigned to each work package. For this project, a RACI (responsible, accountable, consult, and inform) chart will allow the project manager to ensure the clear assignment of roles and responsibilities.

Meetings: The project team will hold meetings to plan the resource management for the project.

4.6.5. Identification of Resources

Successful projects must possess resources with the appropriate set of skills and experiences. Every skill is critical to the completion of tasks and deliverables, which need to be identified and assessed in the terms and skill level required. Based on expert judgement and the analysis of the human resources, the competency and capability of the project resources required to complete assigned tasks and activities within the established time and quality parameters were categorized based on the following parameters:

Proficient

Competent

Learner

Novice

Based on those categories, the level of competency per role is summarized in the chart 55:

Chart 55. Human Resource Skills and Proficiency (Source: author of the study)

Role	Skill	Proficiency
Project manager	Leadership	1
	Organization	1
	Budgeting	1
	Scheduling	1
	Communication	1
Project sponsor	Communication	2
	Management/Leadership	2
Host	Technical knowledge	2
	Communication	1
	Problem solving	2
External resource (graphic designer)	Technical knowledge	2
	Communication	2

4.6.6. Project Organization Chart

The following figure is a depiction of the Project Organization:

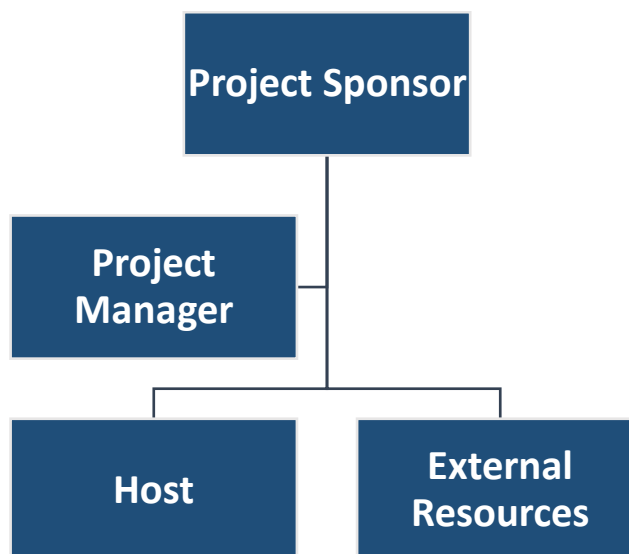


Figure 11. Project Organization Chart. (Source: author of the study)

A RACI chart was also prepared to show the relationship between the project tasks and team members.

Key:

R – Responsible for completing the work

A – Accountable for ensuring task completion/sign off

C – Consulted before any decisions are made

I – Informed when an action/decision has been made

Blank – No responsibility/action

The following is a RACI chart for Project Management:

Chart 56. Project Management RACI (Source: author of the study)

Activities	Project sponsor	Project manager	Host	Graphic designer
To develop the project charter	A	R	I	
To develop the scope management plan	A	R	I	
To develop the requirement management plan	A	R	I	
To develop the schedule management plan	A	R	I	
To develop the cost management plan	A	R	I	
To develop the quality management plan	A	R	I	
To develop the resource management plan	A	R	I	
To develop the risk management plan	A	R	I	
To develop the procurement management plan	A	R	I	
To develop the communication management plan	A	R	I	
To develop the stakeholder management plan	A	R	I	

The following is a RACI chart for Craft:

Chart 57. Craft RACI (Source: author of the study)

Activities	Project sponsor	Project manager	Host	Graphic designer
To select between potted plants and/or terrariums for the plant night event	C	A	R	I
To create a detailed list of materials needed for the selected craft with a draft of possible vendors	C	A	R	I
To develop detailed instructions to create the selected craft	C	A	R	I

The following is a RACI chart for Venue:

Chart 58. Venue RACI (Source: author of the study)

Activities	Project sponsor	Project manager	Host	Graphic designer
To select a venue, among possible venues, that fulfills the requirements	R	A	C	I
To negotiate an agreement	R	A		
To sign the agreement	R	A		
To select a date for the event	R	A	C	I
To reserve the venue	R	A		
To design a space layout	R	A	C	

The following is a RACI chart for Marketing:

Chart 59. Marketing RACI (Source: author of the study)

Activities	Project sponsor	Project manager	Host	Graphic designer
To create a social media strategy	R	A	C	I
To apply the social media strategy	R	A		
To design a brochure for the event	C	A	I	R
To create a word of mouth marketing strategy	R	A	C	
To apply the word of mouth marketing strategy	R	A		
To receive payment for the confirmed attendees	R	A	I	
To confirm attendance	R	A	I	

The following is a RACI chart for Material:

Chart 60. Material RACI (Source: author of the study)

Activities	Project sponsor	Project manager	Host	Graphic designer
To procure all materials needed for the craft	R	A	C	
To print out the brochure	R	A		C
To procure all materials needed for the refreshments	R	A	C	

The following is a RACI chart for Event:

Chart 61. Event RACI (Source: author of the study)

Activities	Project sponsor	Project manager	Host	Graphic designer
To Set up the space	C	A	R	
To develop one event in which attendees will socialize and assemble the craft	C	A	R	
To close the event	C	A	R	

4.6.7. Project Resource Estimate

Since the proposed project is of short duration (7 weeks), the resource estimation was performed based on expert judgement. The following chart identified the amount of resources required for the project:

Chart 62. Project Resource Estimate (Source: author of the study)

Role	Amount of resources needed	Type of resource
Project sponsor	1	Internal
Project manager	1	Internal
Host	1	Internal
Graphic designer	1	External (outsource)

Figure 12 below shows the number of staff hours needed by role per each week planned for the complete project. Hours assigned for each member of the team resulted from Section 4.3.4, Activity List and Sequencing, of this project management plan.

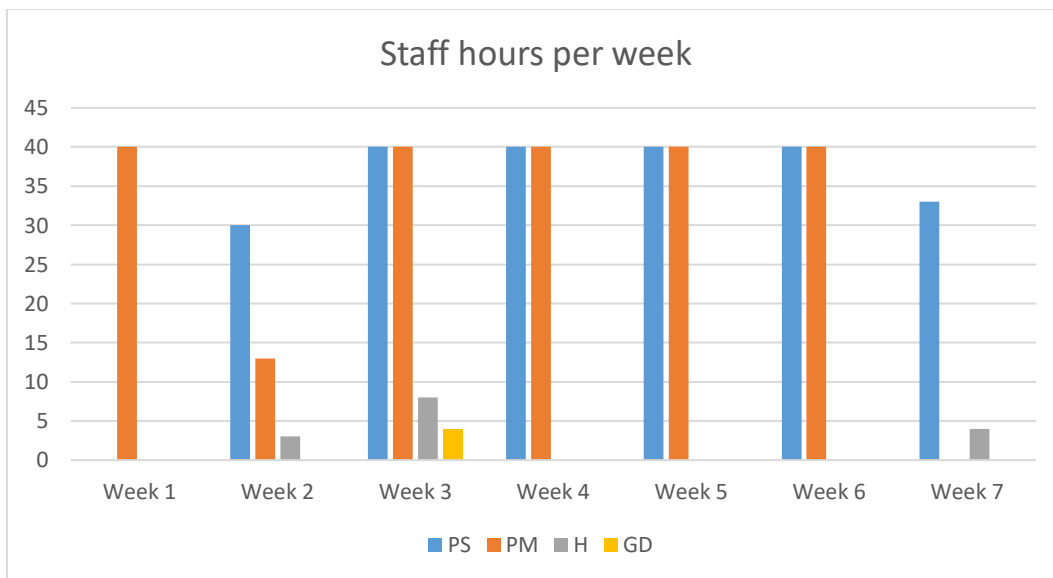


Figure 12. Project Staff Hours Chart. (Source: author of the study)

Key:

PS – Project sponsor

PM – Project manager

H – Host

GD – Graphic designer

4.6.8. Acquiring

Staff acquisition involves getting the needed human resources assigned to and working on the project. The following tools and techniques will be used:

Negotiations: Staff assignments must be negotiated with the project sponsor to ensure that the project receives appropriately competent staff in the necessary time frame.

Procurement process: External specialized resources are to be incorporated based on the human resource procedure. The procurement process can be used to obtain the services of the graphic designer. Procurement is required when the performing organization lacks the in-house staff needed to complete the project. See Section 4.8 of this project management plan.

Multi-criteria decision analysis: Multi-criteria decision analysis is a technique that uses a decision matrix to provide a systematic analytical approach for establishing criteria, such as risk levels, uncertainty, and valuation, to evaluate and rank many ideas. Using a multi-criteria decision analysis tool, criteria are developed and used to rate or score potential resources according to their relative importance and values arrived at for different types of resources. Some examples of selection criteria that can be used are the following:

Knowledge/Capability: It considers if the team member has relevant skills in the domain, knowledge of the customer, similar implemented projects, and nuances of the project environment.

Experience: It verifies whether the team member has relevant experience that will contribute to the project success.

Availability: It verifies whether the resource is available to work on the project within the given time period.

Cost: It verifies whether the cost of adding the resource is within the prescribed budget.

Attitude: It assesses whether the team member has the ability to work with others as a cohesive team.

International factors: It considers the team member's location, time zone, and communicative skills.

The project manager will work with the project sponsor to advertise positions and perform interviews. Staff may also be replaced by redirecting resources from within or outside the project, or their workload may be absorbed by other staff.

4.6.9. Team Development Plan

The project manager will document the process for improving competencies, team member interaction, and the overall team environment.

4.6.9.1 Skill and Competency Development

The project manager will assess whether internal team members require any training to competently fulfill their project duties. If anticipated project team members do not have the required level of competency, the project manager will identify the training required and include the training costs in the project's baseline cost. Refer to section 4.6.5 for assistance in evaluating staff competency.

All external resources are to be fully competent with their specific roles. No additional competency development is to be provided to external resources.

4.6.9.2 Team Development

One of the many responsibilities of the project manager is to enhance the ability of each team member to contribute to the project while also fostering individual growth and accomplishment. Developing effective project teams is a primary responsibility of the project manager. A high-performing project team can be formed by the following activities:

Using open and effective communication

- Creating team-building opportunities
- Developing trust among team members
- Establishing team norms, values, and guiding principles
- Establishing rewards and recognition for positive contribution
- Managing conflicts in a constructive manner
- Encouraging collaborative problem solving and decision making

4.6.10. Resource Control

Controlling resources commences with using the project management plan to determine what resources are needed and then assigning them to the various tasks on the project at the correct time. This process continues throughout the project lifecycle to ensure the planned resources are ready and available as required to avoid delays in delivery. The outputs from this process will provide updates to the overall resource plan as well as the risk and issue logs.

While the project work is carried out, changes against the plan are to be identified for the following elements:

- Availability of resources required when they are needed and ensuring there is no shortage

- Allocation of planned resources for the activities at the right time

- Release of resources when they are no longer needed

- Maximum utilization of resources to optimize the cost

- Proactively managing any changes in the planned resource requirements

The project manager will need to manage changes as required through a change control process.

4.7. Risk Management Plan

The development of the risk management plan for the Sustainable Plant Night Events Project includes the processes of defining how to conduct risk management activities for the project.

According to A Guide to the Project Management Body of Knowledge (PMBOK), 6th Edition (PMI, 2017), the following inputs and tools and techniques are required to develop the risk management plan. See Figure 13 below.

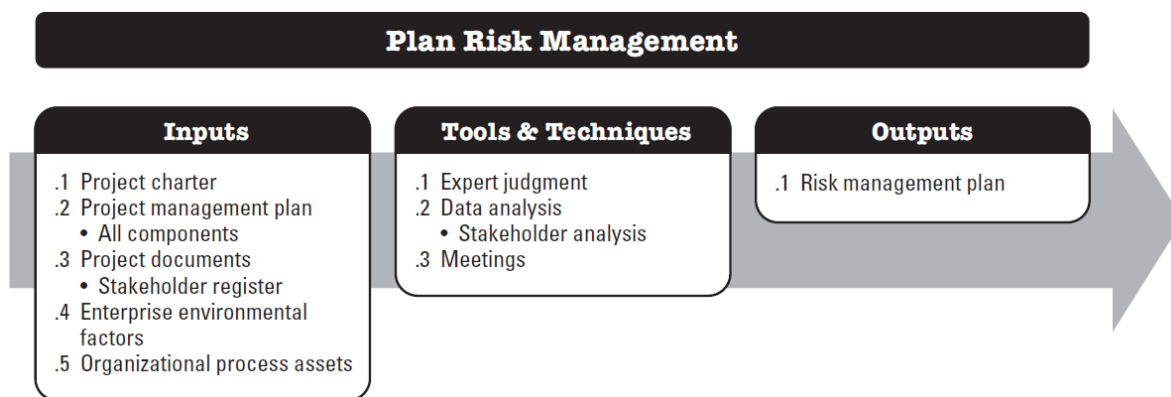


Figure 13. Plan Risk Management: Inputs, Tools & Techniques, and Outputs. Reprinted from A Guide to the Project Management Body of Knowledge (PMBOK) 6th Edition (p. 401), Project Management Institute, 2017. Project Management Institute. Copyright 2017 by Project Management Institute, Inc.

Plant Night Events Project Risk Management Plan

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Document owner: Felmar Compañía EIRL

Project: Sustainable Plant Night Events

Project manager: Elky Mug

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Approver name	Role
Michelle Felser	Project sponsor

NOTE: All reviewers in the list are considered required unless explicitly listed as optional.

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Revision	Date	Created by	Short description of the changes
[0.0]	[08/14/2020]	Project manager	<i>Initial version of the document</i>

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4.7.1. Introduction

Purpose

A risk is an event or condition that, if it occurs, could have a positive or negative effect on a project's objectives (PMI, 2017). Risk management is the process of identifying, assessing, responding to, monitoring, and reporting risks. This risk management plan defines how risks associated with the Sustainable Plant Night Events Project will be identified, analyzed, and managed. It outlines how risk management activities will be performed, recorded, and monitored throughout the lifecycle of the project, and it provides templates and practices for recording and prioritizing risks.

This risk management plan is created by the project manager in the planning phase with the support of the project team, and it will be monitored and updated throughout the project. Managing risks is a key element of the project management process for the planning and performance phases of the Sustainable Plant Night Events Project. As such, this risk management plan develops the methodology to identify and quantify the risks to the project, determine the consequence and associated probability, and develop mitigation strategies. Opportunities will be managed as well to ensure project success and efficiency.

4.7.2. Risk Management Approach

The Sustainable Plant Night Events Project risk management plan process methodology is based on the elements included in the PMBOK Guide, Sixth Edition and standards from the Project Management Institute (PMI). Risks will be identified as early as possible in the project to minimize their impact, this process will continue throughout the project lifecycle. Due to the schedule and cost constraints of the project, the risk management process meeting updates are to be held on a weekly

basis. The steps for accomplishing the risk management plan objectives are outlined in the following sections.

4.7.3. Roles and Responsibilities

The following chart enlists the roles and responsibilities for risk management:

Chart 63. Risk Management Roles and Responsibilities (Source: author of the study)

Roles	Responsibility
Project sponsor	The project sponsor will define her constraints and requirements to ensure they are adequately taken into account in the risk management process.
Project manager	The project manager will have the overall responsibility of the establishment and active execution of the risk management plan. She is also responsible for ensuring risk communication and that corresponding reports are performed.
Project team	Specific responsibilities may include the following activities: - To actively participate in the risk management meetings - To identify risks - To support the project manager in clarifying and documenting risks - To provide the status regarding risk mitigation actions - To communicate the status to risk owners - To participate in the risk closure process
External resources	They are responsible for providing the risks related to their activities and will report newly found risks immediately.

4.7.4. Tools and Techniques

The following tools and techniques will be used for the risk management plan:

Expert judgement: Expertise will be considered from the project manager's knowledge in risk identification, analysis, response, and monitoring processes, based on experience in previous projects.

Brainstorming: Brainstorming will be used to obtain a list of individual project risks and sources of the overall project risk.

Risk breakdown structure (RBS): The RBS is a hierarchical representation of potential sources of risk. The project's RBS provides several additional insights into the assessment of risk exposure on the project that will be used in the risk identification and in the prioritization process.

Probability and impact scales: The scoring (scale) of the risk probability and impact using in the risk register is a standard method based on defining clear ratings and logical economic effects on the project.

Probability and impact matrix: A probability and impact matrix is a grid for mapping the probability of each risk occurrence and its impact on project objectives if that risk occurs.

Risk register: All risks and opportunities that may affect the project outcome or arise from the project assessment are to be documented in the project's risk register (log).

4.7.5. Identify Risks

Due to the short duration of the project, the risk identification activities will be continuously revised in the weekly team meetings. All assumptions made to identify risks are to be validated and reviewed continuously in the meetings to have the uncertainties under control. The risk identification process will include all risks and opportunities pertaining to the execution as well as the ones after project closure. Risks will be coded in the risk breakdown structure (see Chart 64), and a risk register will be prepared to include all risks (threats and opportunities) identified by the team (see charts 71 and 72).

Risk categories are to be structured with the risk breakdown structure, which is a hierarchical representation of potential sources of risk. The project's RBS provides several additional insights into the assessment of risk exposure on the project that will be used in the risk identification and in the prioritization process.

The RBS is shown in the following chart:

Chart 64. Risk Breakdown Structure (Source: author of the study)

Risk level 1	Risk level 2	Risk level 3	
1. Internal risks	1.1. Organization and management	1.1.1. Schedule and resource constraints	
		1.1.2. Financial constraints	
	1.2. Resources	1.2.1. Personnel experience and qualifications	
		1.2.2. Personnel and material availability	
		1.2.3. Quality of resources	
	1.3. Technical	1.3.1. Project requirements	
		1.3.2. Estimates, assumptions, and constraints	
	2. External risks	2.1. Commercial	2.1.1. Contractual terms and conditions
			2.1.2. Providers and vendors
2.2. Environment		2.2.1. Weather	
		2.2.2. Site and facilities	
2.3. Market		2.3.1. Competition	
		2.3.2. Demand	
		2.3.3. Cost/Availability of materials	
2.4. Legislation		2.4.1. Legal and regulatory compliance	

4.7.6. Qualitative Risk Analysis

Through qualitative risk analysis, risk prioritization will be assessed using the probability of occurrence, the results of which will be included in the risk register. The project sponsor and the project manager, with input from the project team and other stakeholders, will assess the probability and impact of occurrence for each identified risk.

4.7.6.1 Probability and Impact Scales

Risks and opportunities are identified and managed in this risk management plan.

Probability and Impact Scales for Project Risks

Probability scales for this project are based on the likelihood of the risks to happen within the short duration of the project, which is 7 weeks. The scoring (scale) of the risk probability and impact using in the risk register was a standard method based on defining clear ratings and logical economic effects on the project.

The project risk probability scale is shown in the following chart:

Chart 65. Project Risk Probability Scale (Source: author of the study)

Probability	
1	An event we do not expect to happen in the next 7 weeks
2	An event we do not expect to happen in the next 4 weeks
3	An event we expect to happen anytime

The project impact scales were also aligned to project circumstances in regards to the economic impact they will drive if they happen and understanding that the project budget is limited to \$402.5, which, based on 7 weeks of project duration (5 days a week, 8 hours a day), is equivalent to \$57.5 per week, \$11.5 per day, or \$1.44 per hour.

The project risk impact scale is shown in the following chart:

Chart 66. Project Risk Impact Scale (Source: author of the study)

Impact	
1	Impact of less than \$57.5
2	Impact between \$58.5 and \$115
3	Impact higher than \$116

Risks that fall within the RED and YELLOW zones will have risk response planning, which may include both a risk mitigation and a risk contingency plan. See Chart 71.

Probability and Impact Scales for Project Opportunities

Probability and impact scales for the project opportunities were also defined, taking into consideration cost savings, Melfar prestige, and project quality.

The project opportunity probability scale is shown in the following chart:

Chart 67. Project Opportunity Probability Scale (Source: author of the study)

Probability	
1	Project benefits will sustain from 6 months to 1 year.
2	Project benefits will sustain from 1 to 2 years.
3	Project benefits will sustain for more than 3 years.

The project impact scales in regard to the opportunities were aligned to project circumstances regarding Melfar's impact on social media. For this analysis, social media was related to the economical investment of the project.

The project opportunity impact scale is shown in the following chart:

Chart 68. Project Opportunity Impact Scale (Source: author of the study)

Impact	
1	Positive social media following is translated into economic opportunities as \$115.
2	Positive social media following is translated into economic opportunities between \$116 and \$402.5.
3	Positive social media following is translated into economic opportunities higher than \$403.5.

4.7.6.2 Probability and Impact Matrix

Based on the project objectives and sponsor's expectations, the risk probability and impact scales were defined as indicated in the table below:

Chart 69. Risk Probability and Impact Result Scale (Source: author of the study)

P x I (probability x impact)	
From 1 to 3	Green
From 4 to 6	Yellow
From 7 to 9	Red

Risks that fall within the RED and YELLOW zones will have risk response planning, which may include both a risk mitigation and a risk contingency plan.

Based on the project objectives and sponsor's expectations, the opportunity probability and impact scales were defined as indicated in the table below:

Chart 70. Opportunity Probability and Impact Result Scale (Source: author of the study)

P x I (probability x impact)	
From 1 to 3	Green
From 4 to 6	Yellow
From 7 to 9	Red

Opportunities that fall within the RED and YELLOW zones will be the ones that shall be considered to ensure their harnessing.

4.7.6.3 Risk and Opportunity Risk Register

All risks and opportunities that may affect the project outcome or arise from the project assessment are to be documented in the project's risk register and opportunity register (see charts 71 and 72). Having an actively managed risk and opportunity register will encourage the project team to look for and consider opportunities that can enhance the value of the project. Finally, "the register provides an effective tool for sharing knowledge. Everyone on the team contributes, adds information and views information contributed by others". The register will be the basis for weekly meetings on risk management. At the end of the project, the register

will provide the team with a record of how risks were managed and the gains realized through the process.

The risk and opportunity register was prepared based on the proposed activities expected for this type of project, constraints, and conditions. Prioritization was based on their likelihood of occurrence and degree of potential impact. Updates to the register will be performed on a weekly basis. See chart 71.

Chart 71. Risk Register (Source: author of the study)

RBS Code	Cause	Risk	Consequences	Probability	Impact	P x I	Trigger	Owner	Strategy	Cost
1.1.1	Constant changes in national social gathering and service venue policies due to current COVID-19 pandemic	Project delays	Interruption in the project activities that are based on \$1.44/hour	3	1	3	Uprise in Covid-19 active cases	Project Manager	BEAR: COVID-19 pandemic generates great uncertainty, which the Project Team has decided to bear	Project Sponsor will bear up to \$115
1.1.1	Constant changes in national social gathering and service venue policies due to current COVID-19 pandemic	Project cancellation	Project cancellation can cost up to \$402.5	3	3	9	Uprise in Covid-19 active cases	Project Manager	CONTINGENCY: Offer a virtual modality for the workshop, with a lower price but including delivery of materials to each attendee's home	Offer a 10% discount per attendee would be up to \$27 + Up to \$50 in delivery = \$77
1.1.2	Constant changes in national social gathering and service venue policies due to current COVID-19 pandemic	Increase to project costs	Project activities are based on \$1.44/hour	3	1	3	Uprise in Covid-19 active cases	Project Sponsor	BEAR: COVID-19 pandemic generates great uncertainty, which the Project Team has decided to bear	Project Sponsor will bear up to \$115
1.2.2	Health issues	Host unavailability	Project cancellation can cost up to \$402.5	1	3	3	Exposure to flu and other common diseases	Project Manager	CONTINGENCY: Offer a virtual modality for the workshop, with a lower price but including delivery of materials to each attendee's home, on a different date	Offer a 10% discount per attendee would be up to \$27 + Up to \$50 in delivery = \$77

Continuation of Chart 71. Risk Register (Source: author of the study)

RBS Code	Cause	Risk	Consequences	Probability	Impact	P x I	Trigger	Owner	Strategy	Cost
1.2.3	Lack of communication and training	Host performance is not of expected quality	Refund for attendees can cost up to \$18 per attendee	1	2	2	Miscommunication of instructions expressed in a meeting	Project Sponsor	MITIGATE: Ensure proper training and communication with the Host	0\$ since Project Manager and Project Sponsor Resources cost up to \$0
1.3.1	Lack of communication	Event is not what attendees expected	Refund for attendees can cost up to \$18 per attendee	1	2	2	Miscommunication of instructions expressed in a meeting	Project Manager	MITIGATE: Ensure proper training and communication with the Host	0\$ since Project Manager and Project Sponsor Resources cost up to \$0
1.3.2	Assumptions	Attendees will not enjoy the drinks and music available	Refund for attendees can cost up to \$18 per attendee	1	2	2	Miscommunication of instructions expressed in a meeting	Project Manager	MITIGATE: Ensure material quality from suppliers	0\$ since Project Manager and Project Sponsor Resources cost up to \$0
2.1.1	Lack of clear contractual terms and conditions	Venue will not deliver the expected service	Refund for attendees can cost up to \$18 per attendee	2	2	4	Miscommunication of instructions expressed in a meeting	Project Sponsor	MITIGATE: Ensure proper and clear communication during contractual agreements	0\$ since Project Manager and Project Sponsor Resources cost up to \$0
2.1.1	Lack of clear contractual terms and conditions	Venue will cancel event without prior notice	Project cancellation can cost up to \$402.5	1	3	3	Miscommunication of instructions expressed in a meeting	Project Sponsor	CONTINGENCY: Offer a virtual modality for the workshop, with a lower price but including delivery of materials to each attendee's home, on a different date	Offer a 10% discount per attendee would be up to \$27 + Up to \$50 in delivery = \$77

RBS Code	Cause	Risk	Consequences	Probability	Impact	P x I	Trigger	Owner	Strategy	Cost
2.1.2	Lack of communication with vendors and providers	Materials will not be of expected quality	Refund for attendees can cost up to \$18 per attendee	1	3	3	Miscommunication of instructions expressed in a meeting	Project Sponsor	MITIGATE: Ensure material quality from suppliers	0\$ since Project Manager and Project Sponsor Resources cost up to \$0
2.2.1	Rainy Season in Costa Rica is from May to mid-November	Event cancellation	Project cancellation can cost up to \$402.5	1	3	3	Heavy rain	Project Manager	CONTINGENCY: Offer a virtual modality for the workshop, with a lower price but including delivery of materials to each attendee's home, on a different date	Offer a 10% discount per attendee would be up to \$27 + Up to \$50 in delivery = \$77
2.2.2	Lack of appropriate cleaning and hygiene procedures	Facilities will not be of expected quality	Refund for attendees can cost up to \$18 per attendee	1	3	3	Lack of appropriate venue hygiene measures	Project Manager	MITIGATE: Ensure proper and clear communication during contractual agreements	0\$ since Project Manager and Project Sponsor Resources cost up to \$0
2.2.2	Lack of appropriate cleaning and hygiene procedures	Attendees get sick	Bad reputation for the Sponsor can cost up to refund for attendees can cost up to \$18 per attendee	1	3	3	Exposure to norovirus	Project Manager	MITIGATE: Ensure proper and clear communication during contractual agreements	0\$ since Project Manager and Project Sponsor Resources cost up to \$0

Continuation of Chart 71. Risk Register (Source: author of the study)

RBS Code	Cause	Risk	Consequences	Probability	Impact	P x I	Trigger	Owner	Strategy	Cost
2.3.1	Other events offer a similar more attractive product	Insufficient number of attendees sign up for the event	Project cancellation can cost up to \$402.5	1	3	3	Bad economy can cause people to search for other alternative sources of income and offer similar events	Project Sponsor	BEAR: COVID-19 pandemic generates great uncertainty, which the Project Team has decided to bear	Project Sponsor will bear up to \$115
2.3.2	There is not enough demand for the event	Insufficient number of attendees sign up for the event	Project cancellation can cost up to \$402.5	2	3	6	Fear of exposure to COVID-19	Project Sponsor	CONTINGENCY: Offer a virtual modality for the workshop, with a lower price but including delivery of materials to each attendee's home, on a different date	Offer a 10% discount per attendee would be up to \$27 + Up to \$50 in delivery = \$77
2.3.3	Increase in prices	Materials are more costly than expected	Budget increase of more than \$18 per attendee	1	2	2	Increase in demand of materials	Project Manager	BEAR: COVID-19 pandemic generates great uncertainty, which the Project Team has decided to bear	Project Sponsor will bear up to \$115
2.4.1	Constant changes in national social gathering and service venue policies due to current COVID-19 pandemic	Event is cancelled	Project cancellation can cost up to \$402.5	3	3	9	Uprise in Covid-19 active cases	Project Manager	CONTINGENCY: Offer a virtual modality for the workshop, with a lower price but including delivery of materials to each attendee's home, on a different date	Offer a 10% discount per attendee would be up to \$27 + Up to \$50 in delivery = \$77

The following chart shows the opportunity register:

Chart 72. Opportunity Register (Source: author of the study)

RBS Code	Cause	Opportunity	Advantages	Probability	Impact	P x I	Trigger	Owner	Strategy	Economic opportunities
1.1	The event exceeds attendees expectation and inspires creativity	Attendees reach out with an interest to host similar events based on the Event Night, for a different product	Good reputation for the Project Sponsor and increase in Social Media presence	2	3	6	Bad economy can cause people to search for other alternative sources of income and offer similar events	Project Sponsor	EXPLOIT: Partnering to host a similar event for a different product for people with different interests	Partnership can create opportunities of over \$403.5
1.3	The event exceeds the Project Sponsor's expectations in regards to Project Management approach	The Project Sponsor decides to host more events	Project sponsor will have more trust in these events and will host a series of them according to demand	2	2	4	Successful project	Project Sponsor	IMPROVE: Improve on PM strategy from lessons learned	More events can create revenue of up to \$115 per event
2.1	The event exceeds the Venue Owner's expectations	Word of mouth of the success of the event creates the opportunity for partnership with more venue owners	Good reputation for the Project Sponsor and increase in Social Media presence and offering to host more events	2	2	4	Successful project	Project Sponsor	IMPROVE: Improve on PM strategy from lessons learned	More events can create revenue of up to \$115 per event

4.7.7. Plan Risk Responses

Each risk will be assigned to a project team member for monitoring purposes to ensure that the risk is adequately and timely managed and/or addressed. For each risk that will be mitigated, the project team will identify ways to perform risk monitoring, controlling, and reporting throughout the project lifecycle. Appropriate options and action plans will be developed to reduce the threats of specific risks to project objectives and/or take advantage of possible opportunities. All project change requests will be analyzed for their possible impact to the project risks. The risk register will be continuously updated with the specified proposed response plan for the occurrence of each risk event and an updated project management plan.

4.7.8. Risk Monitoring and Control

Risk monitoring and control is the process of identifying, analyzing, and planning for newly identified risks, monitoring previously identified risks, and re-evaluating existing risks to verify the planned risk response strategies for their effectiveness. The level of risk on a project will be tracked, monitored, and reported throughout the project lifecycle. The updated status risk register list will be maintained by the project team and will be reported as a component of the project status reporting process on a weekly basis.

Project activities involved in risk monitoring and control will include the following:

- Validating risk mitigation strategies and alternatives
- Taking corrective actions when actual events occur
- Assessing the impact of the actions taken (cost, time, and resources) on the project
- Identifying new risks resulting from risk mitigation actions
- Ensuring that the project plan (including the risk management plan) is maintained

- Ensuring change control addresses risks associated with the proposed change
- Revising risk management documents to capture the results of mitigation actions
- Updating the risk register
- Communicating the risk management status and risk response follow-through as appropriate
- Establishing communication as appropriate

4.8. Procurement Management Plan

The development of the procurement management plan for the Sustainable Plant Night Events Project includes the processes of documenting project procurement decisions, specifying the approach, and identifying potential sellers.

According to A Guide to the Project Management Body of Knowledge (PMBOK), 6th Edition (PMI, 2017), the following inputs and tools and techniques are required to develop the procurement management plan. See Figure 14 below.

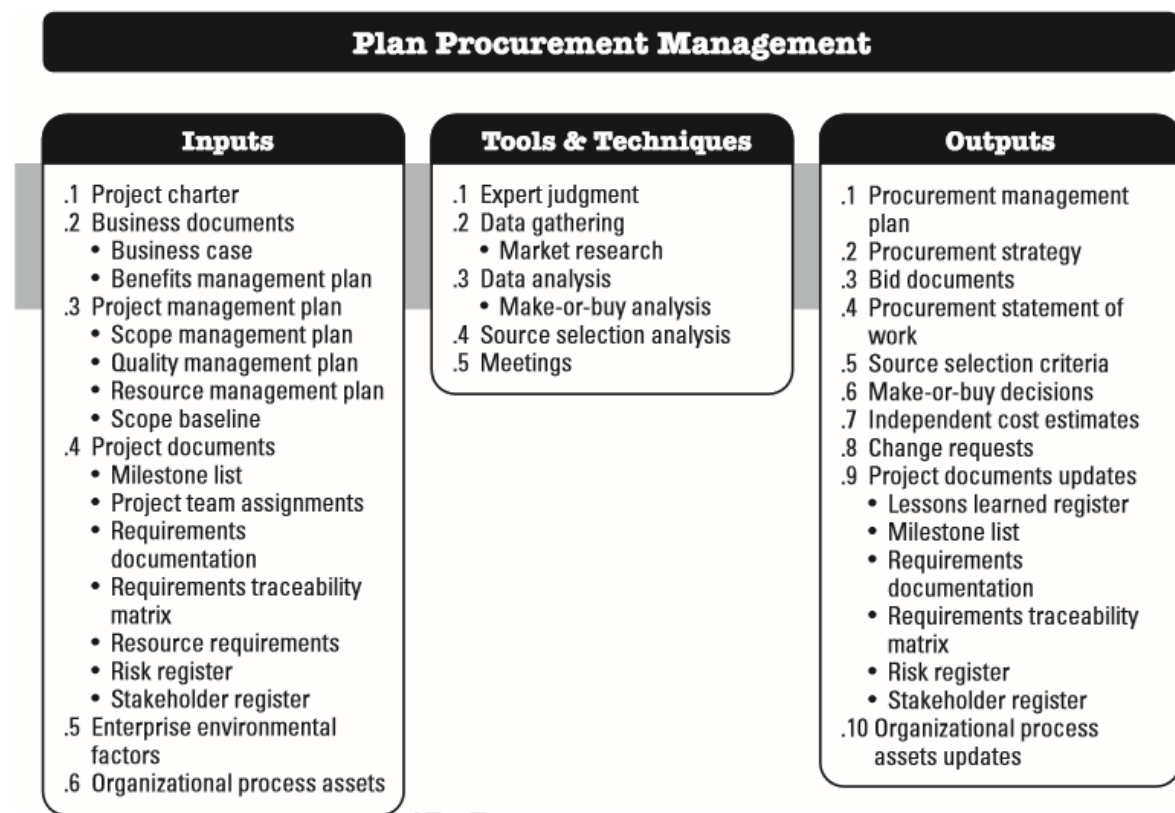


Figure 14. Plan Procurement Management: Inputs, Tools & Techniques, and Outputs. Reprinted from A Guide to the Project Management Body of Knowledge (PMBOK) 6th Edition (p. 466), Project Management Institute, 2017. Project Management Institute. Copyright 2017 by Project Management Institute, Inc.

Plant Night Events Project Procurement Management Plan

Revision status: version 1.0

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Document owner: Felmar Compañía EIRL

Project: Sustainable Plant Night Events

Project manager: Elky Mug

Document approver(s): All approvers are required. Records of each approver must be maintained.

Approver name	Role
Michelle Felser	Project sponsor

NOTE: All reviewers in the list are considered required unless explicitly listed as optional.

Summary of Changes:

To request a change to this document, contact the document author or owner.

Changes to this document are summarized in the following table:

Revision	Date	Created by	Short description of the changes
[0.0]	[08/19/2020]	Project manager	<i>Initial version of the document</i>

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4.8.1. Introduction

Purpose

The procurement management plan sets the procurement framework for the Sustainable Plant Night Events Project. It will serve as a guide for managing procurement throughout the life of the project, and it will be updated as changes are required. A make or buy analysis will not be used for this project given the simplicity of the project itself. All materials for the craft need to be purchased, since Felmar does not produce any of them. Also, due to the experience of the host, the items to be purchased are already known. This plan identifies and defines the items to be procured, the types of contracts to be used in support of this project, the contract approval process, and decision criteria.

This procurement management plan will include sustainability in planning by creating a sustainability policy in the procurement management approach, which will provide a clear strategy so that the event efforts meet the outcomes desired by the sponsor and attendees. The policy will include the values, issues, goals & targets, and commitments of the Sustainable Plant Night Events Project.

4.8.2. Procurement Management Approach

The project manager will provide oversight and management for all procurement activities under this project and make sure that they adhere to the sustainability policy stated above. The project manager will work with the host of the event to identify all items to be procured for the successful completion of the project. The project sponsor will then review the procurement list and contracts and authorize the initiation of the purchasing and the contracting process.

Sustainability Policy

Melfar recognized that events can have a negative impact on the environment. We are committed to finding ways in which we can reduce the impact of our events.

It is our policy to:

- Strive to continuously improve our environmental performance by regularly reviewing our activities and policy

- Comply with environmental legislation requirements

- Reduce our resource consumption and improve efficiency

- Promote the reduction, reuse, and recycling of waste materials

- Ensure all waste is disposed of in a safe and responsible manner

- Avoid the use of paper whenever possible

- Use vegetable ink whenever printing is necessary

- Purchase products with a lower environmental impact

- Avoid unnecessary travel by making use of instant messaging

- Take environmental specifications into account when procuring goods and supplies

- Partner with businesses that harmonize with our sustainability policy

4.8.3. Roles and Responsibilities

The roles and responsibilities for procurement management are described in the following chart:

Chart 73. Procurement Management Roles and Responsibilities (Source: author of the study)

Role	Responsibility
Project sponsor	To provide the necessary resources in support of the project manager to carry out procurement management activities
Project manager	Overall responsibility for carrying out our successful procurement management
Project team	To support the project manager on procurement management activities

4.8.4. Tools and Techniques

The following tools and techniques were used for this section:

- Data gathering
- Data analysis
- Source selection analysis
- Meetings

4.8.5. Procurement Definition

The following procurement items and services have been determined to be essential for project completion and success. The following list of items and services, justifications, and timelines is pending project sponsor review for approval; see Chart 74.

Chart 74. Procurement Items and Services (Source: author of the study)

Item/Service	Justification	Needed by
1 Venue, including the bartending service	Needed for hosting the event	10/23/2020
5 to 15 recycled or recyclable glass bowls of 8.5 x 7 cm (260 ml capacity) approximately	Needed to build the potted plant or terrarium	12/9/2020
20 to 60 4 inch succulent plants	Needed to build the potted plant or terrarium	12/9/2020
3 bags of 32 oz decorative pebbles	Needed to build the potted plant or terrarium	12/9/2020
2 to 7 bags of 8 qt high quality potting mix	Needed to build the potted plant or terrarium	12/9/2020
1 printed A2 poster (420 x 594 mm)	Needed for signaling to the attendees the exact spot of the event inside the venue and for marketing purposes	12/9/2020

In addition to the above list of procurement items, the project manager is authorized to approve purchases for the project team.

4.8.6. Type of Contract to be Used

Given that Melfar is a small organization without a purchasing, contracting, or procurement department, the project manager will assume the purchasing authority role to negotiate and sign the contract directly with the venue. In the case of material purchasing listed in Chart 74, the purchase will not require a contract, since it will be a simple purchase of a defined quantity. In case of the venue and the venue bartending service, the contract will be a procurement agreement that includes the terms and conditions and states the expected deliverables and results (see Chart 15).

4.8.7. Procurement Risks

There are potential risks that pertain specifically to procurement activities, which must be managed in accordance with this project's risk management plan (see Section 4.7). These risks are not all-inclusive, and the standard risk management process will be used:

- Unrealistic schedule and cost expectations for vendors

- Conflicts with contracts and venue relationships

- The potential that the final product does not meet required specifications

4.8.8. Procurement Risk Management

Project risks will be managed according to the Sustainable Plant Night Event's risk management plan (see Section 4.7). However, given that there are risk management considerations that may be unique to procurement management, there will be additional consideration and involvement for risks pertaining to procurement processes. Procurement processes involve external organizations (such as material providers and venue services) that can potentially have an effect over the success of this project. Because these relationships are sensitive, the project manager will

require that the project sponsor be involved in all meetings and decisions regarding procurement.

4.8.9. Cost Determination

For the Sustainable Plant Night Events Project, cost determination will be done through the issuing of a request for quote in order to solicit quotes from various vendors that determine the costs of the materials. All necessary information, including at least a description of the material, quantity, unit price, and total, included in each quote will be used as the foundation of the selection criteria. Proposals that omit solicited information or contain incomplete information will be discarded from consideration.

4.8.10. Standardized Procurement Documentation

Melfar will use a standard procurement documentation that will be used for the first time with the Sustainable Plant Night Event Project, and although this is a relatively small project that requires only 7 weeks to complete, standardization would make work across future project process areas easier to manage. The project manager will maintain a repository of the proposed documentation.

Standard Request for Quote

This is a standard business process that will be employed as a stand-alone request template that will include the following:

- Pricing and product specification

- If required, it should include the definition of service expectations.

- Delivery expectations

- It will include an appropriate time to respond for the supplier.

4.8.11. Procurement Constraints

The Sustainable Plant Night Events Project has several constraints (see Section 4.1.4) that must be considered as part of this procurement management plan. These constraints will be communicated to all vendors in order to determine their ability to operate within these constraints. See Chart 75.

Chart 75. Procurement Constraints (Source: author of the study)

Constraint	
Schedule	The event has a 2 hour time frame.
	Materials must be available by 12/09/2020.
Cost	The budget for materials is of \$18 per attendee.
Scope	The venue requires a liquor license and a health ministry operations permit.
	Law regulation in Costa Rica establishes that the event must be held in a location with the mandatory emergency exits and emergency fire plan.
	The event location must have availability for at least 15 attendees and 1 host, and it must be located in the great metropolitan area of Costa Rica.
	The event location must have accessible bathrooms for restricted mobility.

4.8.12. Contract Approval Process

According to this procurement management plan, the Sustainable Plant Night Events Project requires a contract in the form of an agreement for the venue in which the event will be held. The steps for the contract approval process are described in Chart 76.

Chart 76. Contract Approval Steps (Source: author of the study)

Step	Description
1	To determine at least five possible venues that fulfill the requirements for the event
2	The project manager will send out solicitations to the venues.
3	To receive proposals from the venues.
4	To conduct a review of all venues.
5	The project manager and the project sponsor will meet to determine which contract will be accepted.

4.8.13. Decision Criteria

The criteria for the selection and award of the procurement contract under this project will be based on the following decision criteria:

The ability of the venue to provide all requirements defined in Section 4.2.6.

Quality

Cost

Event date

Social reviews on the venue

These criteria will be measured by the project manager and the project sponsor. The ultimate decision will be made based on these criteria as well as available resources.

4.8.14. Vendor Management

The project manager is responsible for managing vendors. In order to ensure the timely delivery and high quality of products from vendors, the project manager will meet once with the project sponsor and each vendor to discuss the progress for each procured item. The meeting will be carried out by teleconference. The purpose of this meeting will be to review all documented specifications for each product as well as the quality. This space will provide an opportunity to review each item in order to ensure it complies with the requirements established in Section 4.2.6. It also serves as an opportunity to ask questions or modify requirements ahead of time in order to prevent delays in delivery and schedule. The project manager will be responsible for scheduling this meeting.

4.8.15. Performance Metrics for Procurement Activities

The following metrics are established for vendor and venue performance for this project's procurement activities. Each metric is rated on a 1-3 scale as indicated below:

Chart 77. Procurement Activity Performance Metrics

Vendor	Quality	Delivery time	Quality	Costs	Time	Per unit	Efficiency
Vendor #1							
Vendor #2							
Vendor #3							

Reprinted from *Project Procurement Management Plan Template* retrieved by <https://www.projectmanagementdocs.com>.

4.8.16. Sponsor Acceptance

Approved by the project sponsor:

_____ Date: _____

<Project sponsor>

<Project sponsor title>

4.9. Communication Management Plan

The development of the communication management plan for the Sustainable Plant Night Events Project includes the processes to develop an appropriate approach and plan for project communication activities based on the information needs of each stakeholder and the needs of the project.

According to A Guide to the Project Management Body of Knowledge (PMBOK), 6th Edition (PMI, 2017), the following inputs and tools and techniques are required to develop the communication management plan. See Figure 15 below.

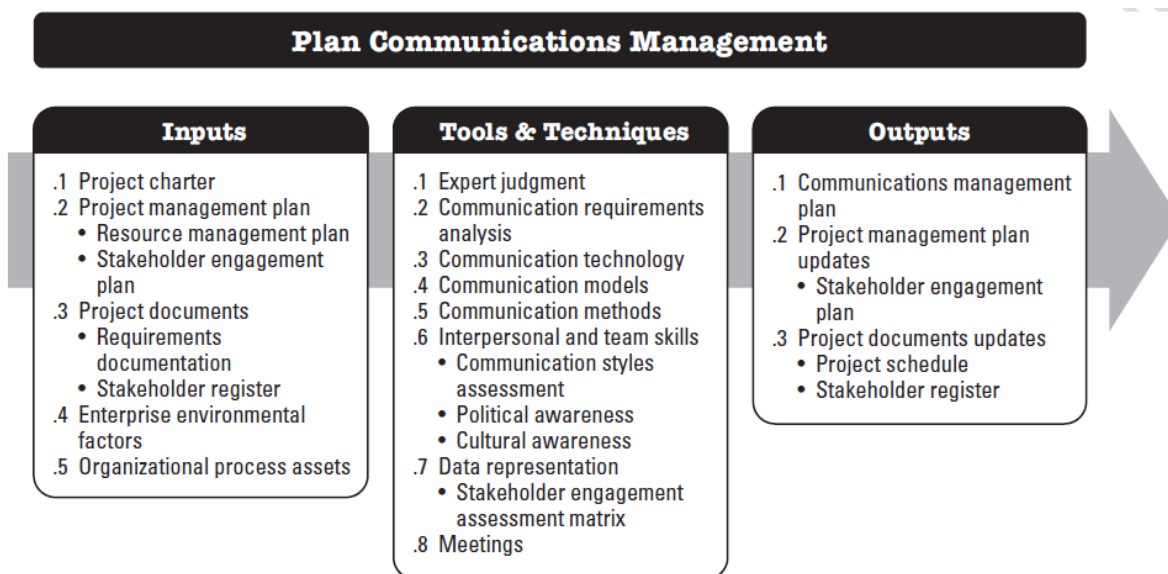


Figure 15. Plan Communication Management: Inputs, Tools & Techniques, and Outputs. Reprinted from A Guide to the Project Management Body of Knowledge (PMBOK) 6th Edition (p. 466), Project Management Institute, 2017. Project Management Institute. Copyright 2017 by Project Management Institute, Inc.

Plant Night Events Project Communication Management Plan

Revision status: version 1.0

Document author: Elky Mug

Document owner: Felmar Compañía EIRL

Project: Sustainable Plant Night Events

Project manager: Elky Mug

Document approver(s): All approvers are required. Records of each approver must be maintained.

Approver name	Role
Michelle Felser	Project sponsor

NOTE: All reviewers in the list are considered required unless explicitly listed as optional.

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- 4.9.4. Tools and Techniques
- 4.9.5. Stakeholder Identification Requirements
- 4.9.6. Communication Standards
- 4.9.7. Communication Matrix
- 4.9.8. Monitoring Communication
- 4.9.9. Project Reporting

4.9.1 Introduction

Purpose

The purpose of this communication management plan is to define the communication goals and strategies of the Sustainable Plant Night Events Project.

This plan is intended to provide guidance in planning and measuring the results of the current and future project communication efforts, and it will be updated as communication needs change. The planning activities identify the appropriate level of communication for each stakeholder, what information should be distributed, through what channels it is distributed, and the frequency of communication.

4.9.2 Communication Management Approach

The communication management plan will be reviewed regularly and modified when necessary. Communication planning was performed during stakeholder identification. The results of this plan will be reviewed regularly throughout the project and revised as needed to ensure continued applicability.

4.9.3 Roles and Responsibilities

The roles and responsibilities for communication management are described in the chart below:

Chart 78. Communication Management Roles and Responsibilities (Source: author of the study)

Roles	Responsibility
Project sponsor	The project sponsor will define her communication needs and will assist the project manager in identifying stakeholder communication requirements.
Project manager	The project manager is in charge of overseeing all internal and external communication for the project, ensuring its message is consistent.
Project team	Specific responsibilities may include the following activities: - To actively participate in the communication management meetings - To support the project manager in communication management activities

4.9.4 Tools and Techniques

The following tools and techniques were used for the development of this communication management plan:

- Communication requirement analysis
- Communication technology
- Communication models
- Communication methods
- Data representation
- Meetings

4.9.5 Stakeholder Identification Requirements

The following chart shows the project's main stakeholder requirement analysis.

Chart 79. Project Stakeholder Requirement Analysis (Source: author of the study)

Role	Responsibility	Stakeholder information requirements	Timeframe / Frequency
Project sponsor	The project sponsor authorizes the project by signing the project charter and will provide funding.	To receive updates on the project progress	Weekly
		To provide input to the requirements	Prior to the completion of a project milestone
		To approve project deliverables	Upon the completion of a project milestone
Project manager	The project manager coordinates and oversees overall project activities and is responsible for the project outcome.	To provide updates on the project progress to the project sponsor and project team	Weekly
		To direct the communication with stakeholders	As needed
Host	<p>She is responsible for hosting the event.</p> <p>The host guides the attendees through the workshop systematically.</p> <p>She ensures attendees are enjoying themselves.</p> <p>The host ensures the event stays within schedule.</p>	To direct the communication with the attendees, venue owner, venue staff, and other venue customers on the night of the event	As needed
		To receive updates on the project progress	Weekly
Vendors and providers	<p>They provide the craft, marketing, and refreshment materials that abide to the specified requirements (sustainable and good quality).</p> <p>They negotiate prices and agreements.</p>	To direct the communication with the project manager	As needed

Continuation of Chart 79. Project Stakeholder Requirement Analysis (Source: author of the study)

Role	Responsibility	Stakeholder information requirements	Timeframe / Frequency
Venue owner	The venue owner provides a space that abides to the specified requirements. He negotiates prices and agreements.	To direct the communication with the project sponsor, project manager, host, venue staff, attendees, and other venue customers	As needed
Venue staff	They provide high quality service to the event attendees and host the night of the event.	To direct the communication with the host, attendees, venue owner, and other venue customers on the night of the event	As needed
Attendees	To confirm attendance To attend the event To provide payment	To direct the communication with the host, other attendees, and venue staff on the night of the event	As needed
		To provide feedback	After the night of the event
Other venue customers	To provide feedback, if any	To provide feedback	During and after the night of the event
Costa Rica Health Ministry	It provides up-to-date information regarding social gathering regulations.	To provide information	Daily

Communication Channels

Communication channels are the distinct paths of communication that are possible between project stakeholders for an information distribution path. Knowing the

complexity of communication channels gives a better control over information distribution, hence better communication planning. The total number of potential communication channels is calculated using the following equation: $n(n-1)/2$, where n represents the number of stakeholders (Bansal, 2020). For this case, there are 9 stakeholders, resulting in 36 channels.

4.9.6 Communication Standards

Efficient and timely communication is the key to successful project completion. In order to ensure the project will stay on schedule and any issues are resolved, the project will use a standard escalation model to provide a framework for escalating communication issues. The chart below defines the priority levels, decision authorities, and timeframes for resolution.

Chart 80. Communication Standard Escalation Process (Source: author of the study)

Priority	Definition	Decision Authority	Timeframe for resolution
Priority 1	Major impact to the project, if not resolved quickly, there will be a significant adverse impact to the schedule, cost, scope, and/or quality.	Project sponsor	Within 2 hours
Priority 2	Medium impact to the project, which may result in some adverse impact to the schedule, cost, scope, and/or quality	Project sponsor	Within 4 hours
Priority 3	Slight impact that may cause some minor scheduling difficulties with the project but no impact to the cost, scope, and/or quality	Project manager	Within 1 business day
Priority 4	Insignificant impact to the project, but there may be a better solution.	Project manager	Work continues, and any recommendations are submitted via the project change control process.

Communication Flowchart

The communication flowchart below was created to aid in the project communication process. This flowchart provides a framework for the project team to follow for this project. In those occasions or situations that can fall outside the communication flowchart, the project manager will be responsible for the corresponding clarification after agreeing with the project sponsor on the determination on how to proceed. See figure 16.

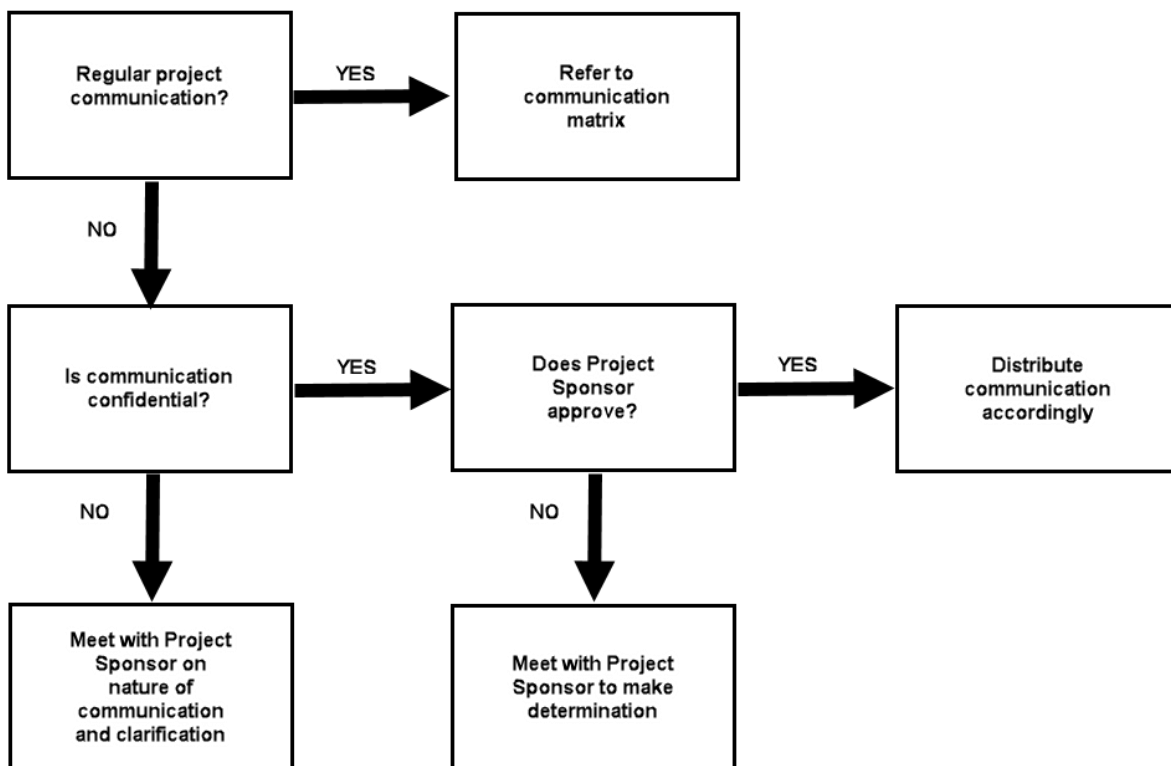


Figure 16. Communication Flowchart. (Source: author of the study)

4.9.7 Communication Matrix

The communication matrix is used to define details regarding the communication activities that are used during the course of the project. The matrix is developed and maintained by the project manager. The project team and the project sponsor work together to develop a matrix of communication activities around each project milestone. See chart 81.

Chart 81. Communication Matrix (Source: author of the study)

Deliverable	Communication method	Communication goal	Artefact or format	Frequency	Audience	Owner
Project management	Meetings	To carry on PM planning activities	Interpersonal communication through video conferences	Weekly	Project team and project sponsor	Project manager
Craft	Meetings	To communicate the selection and steps	Interpersonal communication through video conferences	Once	Project team	Project manager
Venue	Meetings	Selection and negotiation	Interpersonal communication through video conferences, phone calls, and instant messaging	As needed	Project team and venue owner	Project manager
Marketing	Meetings, networks, and social communication	To determine and apply a marketing strategy	Interpersonal communication through video conferences and social media	Weekly and daily	Project team, attendees, and target market	Project manager
Materials	Meetings, face to face	To procure and purchase materials	Interpersonal communication through video conferences, face to face	Once and as needed	Project team	Project Manager
Event	Meetings and press release	To carry on the event and determine if social gathering is possible	Small group communication and public communication	Once and daily	Project team and attendees	Project manager

4.9.8 Monitoring Communication

To ensure that the communication needs of the project and its stakeholders are met and that the stakeholders' support is maintained for the project's deliverables, the impact and consequences of the project communication will be evaluated and monitored to ensure that the right message with the right content is delivered to the right audience through the right channel at the right time. To achieve this, the project manager will ensure that the project team is a cohesive group where all members feel invested in the team direction and accomplishments and that they have the right tools and direction in order to apply adequate communication, problem solving, leadership, and teamwork skills.

4.9.9 Project Reporting

By performing project reporting, the project work performance results are communicated to stakeholders in the customized manner they expect. The reports should provide all the information needed by stakeholders to the level of detail required by them. The information required to identify the performance baselines for the project reporting will be obtained from the project management plan.

4.10. Stakeholder Management Plan

The development of the stakeholder management plan for the Sustainable Plant Night Events Project includes the processes of developing approaches to involve project stakeholders based on their needs, expectations, interests, and potential impact on the project.

According to A Guide to the Project Management Body of Knowledge (PMBOK), 6th Edition (PMI, 2017), the following inputs and tools and techniques are required to develop the stakeholder management plan. See Figure 17 below.

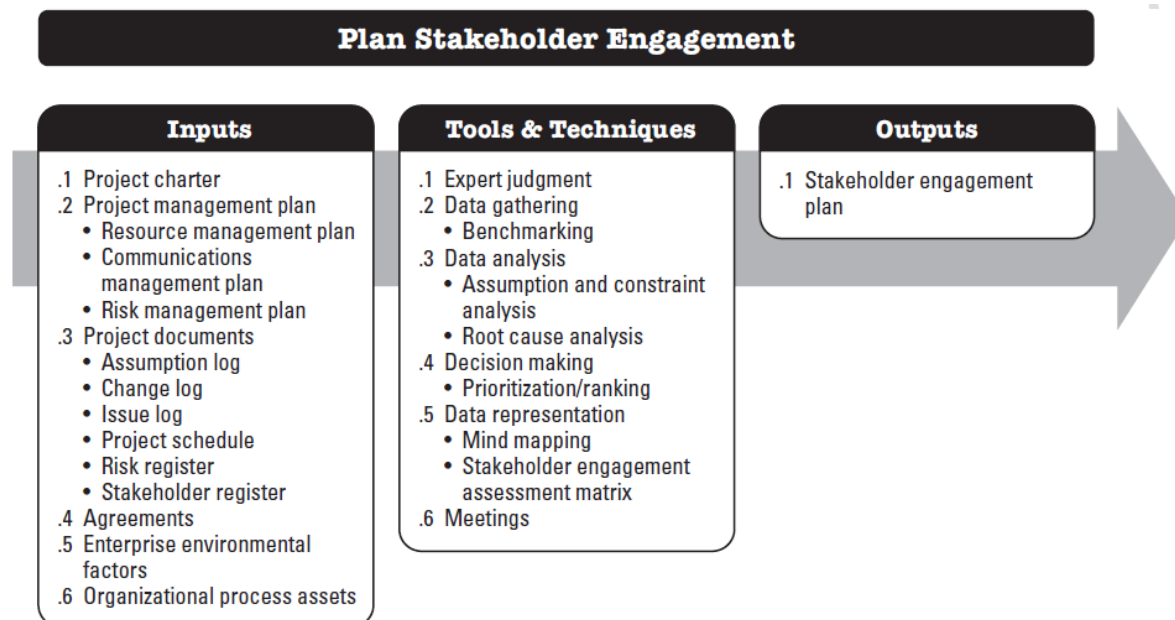


Figure 17. Plan Stakeholder Management: Inputs, Tools & Techniques, and Outputs. Reprinted from A Guide to the Project Management Body of Knowledge (PMBOK) 6th Edition (p. 516), Project Management Institute, 2017. Project Management Institute. Copyright 2017 by Project Management Institute, Inc.

Plant Night Events Project Stakeholder Management Plan

Revision status: version 1.0

Document author: Elky Mug

Document owner: Felmar Compañía EIRL

Project: Sustainable Plant Night Events

Project manager: Elky Mug

Document approver(s): All approvers are required. Records of each approver must be maintained.

Approver name	Role
Michelle Felser	Project sponsor

NOTE: All reviewers in the list are considered required unless explicitly listed as optional.

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- 4.10.1. Introduction
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- 4.10.3. Roles and Responsibilities
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- 4.10.5. Identify Stakeholders
- 4.10.6. Analyze Stakeholders
- 4.10.7. Manage Stakeholder Engagement
- 4.10.8. Monitor Stakeholder Engagement

4.10.1 Introduction

Purpose

The stakeholder management strategy for the Sustainable Plant Night Events Project will be used to identify and classify project stakeholders; determine stakeholder power, interest, and influence; and analyze the management approach and communication methodology for project stakeholders. This will allow the project team to identify key influential stakeholders to solicit input for project planning and gain support as the project progresses. This will benefit the project by minimizing the likelihood of encountering competing objectives and maximizing the resources required to complete the project.

4.10.2 Stakeholder Management Approach

The project manager will ensure that stakeholders will be identified early in the life of the project and will communicate with them to ensure the success of the Sustainable Plant Night Events Project, by gaining support and input for the project. By initiating early and frequent communication and stakeholder management, we can more effectively manage and balance these interests while accomplishing all project tasks.

4.10.3 Roles and Responsibilities

The roles and responsibilities for stakeholder management are described in the following chart:

Chart 82. Stakeholder Management Roles and Responsibilities (Source: author of the study)

Role	Responsibility
Project sponsor	To ensure that the necessary resources are in place to support the project manager in stakeholder management activities
Project manager	To manage and even influence key stakeholders' expectations and requirements
Project team	To support the project manager in stakeholder management activities

4.10.4 Tools and Techniques

The following tools and techniques will be used to perform stakeholder management:

Data gathering

Data analysis

Data representation

Meetings

4.10.5 Identify Stakeholders

The following stakeholder register matrix identifies the Sustainable Plant Night Events project's key stakeholders. See chart 83.

Chart 83. Stakeholder Register Matrix (Source: author of the study)

ID	Stakeholders	Functional area	Roles – Responsibilities	Main expectations	Main requirements
1	Project sponsor	Sponsorship	To provide resources for the project	Project success and extra income	Project completion and success in the expected timetable and within budget
2	Project manager	Project management	To oversee all project management activities	Project success, analysis, and review for future Melfar projects	Project completion and success in the expected timetable and within budget
3	Host	Entertainment	<p>The host is responsible for hosting the event.</p> <p>To guide the attendees through the workshop systematically</p> <p>To ensure attendees are enjoying themselves</p> <p>To ensure the event stays within schedule</p>	<p>Successful event</p> <p>Good reviews on social media</p> <p>Good feedback from the attendees</p>	<p>To have all necessary resources available on time for the event</p> <p>Good communication with the venue owner and venue staff</p> <p>High quality service from the venue staff</p>

Continuation of Chart 84. Stakeholder Register Matrix (Source: author of the study)

ID	Stakeholders	Functional area	Roles – Responsibilities	Main expectations	Main requirements
4	Vendors and providers	Supply and sales	To provide the craft, marketing, and refreshment materials that abide to the specified requirements (sustainable and good quality) To negotiate prices and agreements	Fair trade	Clear communication and requirements for their products
5	Venue owner	Service industry	To provide a space that abides to the specified requirements To negotiate prices and agreements	A successful event that can lead to future events Fair trade Appropriate behavior from the host and attendees	A signed agreement with clear and defined requirements
6	Venue staff	Service industry	To provide high quality service to the event attendees and host on the night of the event	Appropriate behavior from the host and attendees	Good communication from the host and attendees
7	Attendees	End user	To confirm attendance To attend the event To provide payment	An enjoyable event Knowledge on how to build and maintain a potted plant to terrarium To socialize with people with common interests	Enough space to build the potted plant or terrarium Clear instructions and communication from the host Great service from the venue staff
8	Other venue customers	Customer	To provide feedback, if any	Enjoyable night without interruptions or nuisances	Great service from the venue staff

Continuation of Chart 84. Stakeholder Register Matrix (Source: author of the study)

ID	Stakeholders	Functional area	Roles – Responsibilities	Main expectations	Main requirements
9	Costa Rica Health Ministry	Health policy and ministerial services	To provide up-to-date information regarding social gathering regulations	That Costa Rica's population checks up-to-date information	Compliance with health regulations

4.10.6 Analyze Stakeholders

A stakeholder analysis was performed in Section 4.5.5. The following chart shows the level of influence, impact, power, and interest, as well as the proposed stakeholder management strategies, for the seven main identified stakeholders.

Chart 84. Stakeholder Analysis Matrix (Source: author of the study)

Stakeholder	Level (high/low)				Management strategies
	Power	Interest	Influence	Impact	
Project manager	Low	High	High	High	N/A
Project sponsor	High	High	High	High	Consult, involve, and keep informed
Host	Low	High	Low	High	Keep informed, involve, and support
Vendors and providers	Low	Low	Low	Low	Keep informed
Venue owner	High	Low	Low	High	Keep informed, involve, and support
Attendees	Low	High	Low	High	Keep informed, involve, and support
Venue staff	Low	Low	Low	High	Keep informed and support

The stakeholder analysis matrix will be used to capture the stakeholder concerns, level of involvement, and management strategy based on the stakeholder analysis and power/interest, influence/impact, and power/influence matrixes shown in Section 4.5.5. The stakeholder analysis matrix will be reviewed and updated

throughout the project's duration in order to capture any new concerns or stakeholder management strategy efforts.

4.10.7 Manage Stakeholder Engagement

To ensure the correct level of engagement is being achieved by each stakeholder, the project team used the PMBOK, 6th Edition (PMI, 2017) stakeholder engagement assessment matrix. Each stakeholder was assessed in terms of their current and desired level of engagement. In Chart 85, **C** represents the current engagement level of each stakeholder, and **D** indicates the level that the project team has deemed essential to ensure project success. The gap between current and desired for each stakeholder will direct the level of communication necessary to effectively engage the stakeholder (see charts 79 and 82).

Chart 85. Stakeholder Engagement Assessment Matrix (Source: author of the study)

Stakeholder	Unaware*	Resistant*	Neutral*	Supportive*	Leading*
Project sponsor					CD
Project manager					CD
Host				C	D
Vendors and providers			C	D	
Venue owner	C			D	
Venue staff	C			D	
Attendees	C			D	

According to A Guide to the Project Management Body of Knowledge (PMBOK), 6th Edition (PMI, 2017), the engagement level of stakeholders can be classified as follows:

*Unaware: Unaware of the project and potential impacts

*Resistant: Aware of the project and potential impacts but resistant to any changes that may occur as a result of the work or outcomes of the project. These stakeholders will be unsupportive of the work or outcomes of the project.

*Neutral: Aware of the project but neither supportive nor unsupportive

*Supportive: Aware of the project and potential impacts and supportive of the work and its outcomes

*Leading: Aware of the project and potential impacts and actively engaged in ensuring that the project is a success

4.10.8 Monitor Stakeholder Engagement

Project stakeholder relationships will be monitored to tailor strategies for engaging stakeholders to the desired level. The purpose of this monitoring is to maintain or increase the efficiency and effectiveness of stakeholder engagement activities as the project evolves and its environment changes. It will be performed throughout the life of the project.

In order to achieve this, the project manager will direct efforts to improve on the project team's communication skills by providing feedback and interpersonal and team skills, by applying active listening, cultural awareness, leadership, and networking.

All of this will result in the updates of the project management plan and project document updates, such as the issue log (see Chart 53), risk and opportunity registers (see charts 71 and 72), change requests (see Chart 19), stakeholder engagement assessment matrix (see Chart 87), and stakeholder register matrix (see Chart 84).

5 CONCLUSIONS

1. The project management plan was created using the analytical research method and the sixth edition of the PMBOK® to be used as a development tool for the Sustainable Plant Night Events Project and as the basis for a template for future Melfar projects. This plan was tailored to the specific needs of the project.
2. The project charter was the first process developed for the project management plan adding all sections recommended by the sixth edition of the PMBOK® in the project integration management and develop project charter sections.
3. The scope management plan was created based on the recommendations of the output for the plan project management process mentioned in the sixth edition of the PMBOK®, along with the WBS, WBS dictionary, and the requirement management plan. All necessary work and only the necessary work was included in this plan.
4. The schedule management plan allowed the project team to estimate the duration of the project, which resulted in 7 weeks, based on expert judgement. With the help of the WBS, the project team created an activity list that aided in the estimation of time duration. The deliverable with the most estimated time, and therefore part of the critical path, was marketing because the project team and the project sponsor have agreed that this type of events require at least 30 days of promotion.
5. The cost management plan is important to all stakeholders involved in the project because it sets the baseline for what the project is expected to cost and takes actions to ensure the project is on budget. Applying the tools and techniques for this section, the project manager was able to estimate the budget in \$402.5 USD, which is an acceptable price for the project sponsor and has been approved. The cost control procedure will provide management with the information necessary to know and control project costs and minimize overruns in the project cost and delays. Once again, the WBS tool has proven

to be very useful in order to estimate the cost. The deliverable with the most estimated cost is materials, which is also part of the critical path in the schedule management section. That is why there is a 10% reserve for contingencies related to this deliverable and why the team will take special care and attention.

6. The quality management plan has allowed the project team and the project sponsor to understand the importance of stakeholder analysis, requirement identification and prioritization, accurate and transparent role definition and responsibility assignment, and having measurable and realistic quality factors to ensure project success.
7. The resource management plan includes all human resources required to complete the project. These resources were classified based on their roles and responsibilities. In addition, the project organization chart and the management approach are detailed in the plan.
8. The risk management plan allowed the project team to develop the methodology to identify and qualify the risks of the project, determine the consequences and associated probability, and develop mitigation strategies. Using the probability and impact scales, the team was also able to identify opportunities that can have a positive impact on the project and on Melfar.
9. The procurement management plan was developed using a template to identify the project's procurement approach, types of contracts used, and the contract approval process. The plan also details procurement specific risks and constraints and how these, along with vendors and providers, will be managed effectively.
10. The communication management plan includes recommendations of the output for the plan communication management process mentioned in the sixth edition of the PMBOK®. In addition, a communication matrix was developed detailing the main project stakeholders and ensuring that the information is shared at the right time and place through the proper channels.
11. Finally, the stakeholder management plan details how stakeholders will be identified, classified, managed, and engaged throughout the project using the

stakeholder register, stakeholder analysis and level of engagement matrixes. This will allow the project manager to perform effective stakeholder engagement management.

6 RECOMMENDATIONS

1. Melfar should employ formal project management methods to increase the probabilities of project success, with the aid of this project management plan that can be used as a template for future projects. Melfar should develop standard project management initiation and planning documents prior to the execution of future projects. All projects developed by Melfar should be headed by a project manager, using developed standard planning documents tailored for the specific projects.
2. The complexity or simplicity of future project management plans for Melfar should depend on the type of project being developed, and each section should be tailored to its specific needs. The project charter should be the first process developed adding all sections recommended by the sixth edition of the PMBOK® in the project integration management and develop project charter sections.
3. Melfar should develop future scope management plans based on the recommendations of the output for the plan project management process mentioned in the sixth edition of the PMBOK®, along with the WBS, WBS dictionary, and the requirement management plan. All necessary work and only the necessary work should be included in future project management plans.
4. The project team should perform schedule control procedure during each work package. Special attention should be given to the Marketing deliverable, given that it is the deliverable with the most estimated time to perform, and it is critical in order for the event to have a minimum of five attendees. Melfar should carefully consider the timeline and scope by setting meaningful milestones and achievable deadlines for deliverables for future projects.
5. The project manager should keep Melfar and all involved stakeholders for this project informed about cost variances that can affect cost baseline and allow the project team to take action in order to minimize project cost overruns and delays.
6. Melfar and the project team should continuously revisit the quality management plan to ensure a high quality event.

7. The project manager should carefully apply the management approach detailed in this plan in order to reduce any possible gap between the project team's performance and Melfar's strategic objectives.

8. If the current global situation caused by the COVID-19 pandemic should not allow the project to be performed by the established deadline, then Melfar and the project team should review the alternatives listed in the risk register and update the project management plan accordingly in order to apply the contingency for this case.

9. Given the importance that Melfar puts on sustainability, it should apply socially and environmentally responsible decision making into the planning, organization, and implementation of the procurement management plan for this and any other future projects.

10. The project team should use the tools defined in the communication plan in order to achieve successful decision making and planning, and update it according to the results of monitoring communications. Melfar should use a document management system to organize and store all documents created for this and future projects in order to use and review them. Special attention should be paid to documenting lessons learned for this and any future projects, as they will allow the project team to review and improve on project performance.

11. Finally, in order to allow the project manager to perform effective stakeholder engagement management, the project team should constantly revisit and update the stakeholder register, stakeholder analysis and level of engagement matrixes.

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APPENDICES

Appendix 1: FGP Charter

PROJECT CHARTER	
It formalizes the project start and confers the project manager with the authority to assign company resources to the project activities. Benefits: it provides a clear start and well defined project boundaries.	
Date	Project name:
26 August 2019	Project Management Plan for the Sustainable Plant Night Events Project
Knowledge areas / Processes	Application area (sector / activity)
<p>Knowledge areas: project integration management, project scope management, project schedule management, project cost management, project quality management, project resource management, project risk management, project procurement management, project communication management, and project stakeholder management</p> <p>Process groups: initiating, planning, monitoring, and controlling</p>	<p>Event planning</p> <p>Event management</p>
Start date	Finish date
26 August 2019	21 February 2020
Project objectives (general and specific)	
<p>General objective:</p> <p>To develop a project management plan, according to the standards of the Project Management Institute, to manage the Plant Night Events Project through sustainable event planning</p> <p>Specific objectives:</p> <p>1 To create a project charter to formally authorize the existence of the project and provide the project manager with the authority to apply resources to project activities</p>	

- 2 To develop a scope management plan to ensure that the project includes all of the work required, and only the work required, to successfully complete the project
- 3 To develop a schedule management plan to manage the timely completion of the project
- 4 To create a cost management plan to ensure that the project is completed within the approved budget
- 5 To create a quality management plan to identify the quality requirements for the project in order to ensure that these requirements are met in the project deliverables and work processes
- 6 To develop a resource management plan to identify, acquire, and manage the resources needed for the successful completion of the project
- 7 To create a risk management plan to identify, analyze, respond, and monitor risks on the project to increase the probability and/or impact of opportunities and decrease the probability and/or impact of risks, in order to optimize the chances of project success
- 8 To create a procurement management plan to identify the processes necessary to purchase or acquire products, services, or results needed from outside the project team that cause minimal adverse environmental impacts, necessary for the successful completion of the project
- 9 To develop a communication management plan to ensure that the information needs of the project and its stakeholders are met
- 10 To create a stakeholder management plan to identify, analyze, and manage stakeholder expectations and impact on the project

Project purpose or justification (merit and expected results)

Plant Night Events is a project that aims to create community through social gatherings in a setting for people with similar interests. In alliance with local businesses, such as bars, restaurants, and coffee shops, the events will offer a venue to socialize and to exercise artistic creativity by assembling potted plants and terrariums with the guidance of an event hostess. The events will integrate environmental issues into planning in order to have a minimal adverse environmental impact.

The purpose of this final graduation project (FGP) is to develop a project management plan that will define the basis for the Plant Night Events project execution through sustainable event management. This is the first time the sponsor will work with a project management plan for the execution of a project, which will improve the chances of achieving the desired result, prioritize resources, ensure their efficient use, and set the scope, schedule, and budget accurately from the start. This project management plan will become the basis for future project plans.

Description of product or service to be generated by the project – project final deliverables

The final graduation project (FGP) will provide a comprehensive project management plan with all its subsidiary management plans. The FGP will address good practices recommended by the Project Management Body of Knowledge (PMBOK 6th Edition) in alignment with sustainable event planning. Specific deliverables associated with each specific objective include 1. project charter, 2. scope management plan, 3. schedule management plan, 4. cost management plan, 5. quality management plan, 6. resource management plan, 7. risk management plan, 8. procurement management plan, 9. communication management plan, and 10. stakeholder management plan.

Assumptions		
Time: The project can be completed in three (3) months.		
Resources: The project can be completed by one (1) person.		
Resources: All of the information necessary to execute the project will be available.		
Cost: The project cost will not exceed the budget.		
Constraints		
Time:	Three	(3) months
Resources: One (1) person		
Preliminary risks		
If the requirements are not fulfilled, the project management plan may be insufficient for the graduation.		
If the information necessary is not available when required, then the project might not be completed within the defined schedule.		
Budget		
The budget will consist of the cost of printing, binding, and revising the final document.		
Milestones and dates		
Milestone	Start date	End date
Start of the project	26 August 2019	21 February 2020
Graduation seminar	26 August 2019	27 September 2019
FGP charter	26 August 2019	30 August 2019
FGP WBS	26 August 2019	30 August 2019
FGP introduction chapter	02 September 2019	06 September 2019
FGP schedule	02 September 2019	06 September 2019
FGP theoretical framework	09 September 2019	15 September 2019
FGP methodological framework	16 September 2019	20 September 2019
FGP executive summary	23 September 2019	27 September 2019
FGP bibliography and indexes	23 September 2019	27 September 2019
FGP signed charter	23 September 2019	27 September 2019
Tutoring process	18 May 2020	14 August 2020
Tutor	18 May 2020	20 May 2020
Adjustment of previous chapters	21 May 2020	27 May 2020
FGP development	28 May 2020	31 July 2020
FGP conclusions	03 August 2020	07 August 2020
FGP recommendations	10 August 2020	14 August 2020

Tutor approval	14 August 2020	14 August 2020
Reading by reviewers	15 September 2020	05 October 2020
Reviewer assignment request	15 September 2020	21 September 2020
Reviewer work	22 September 2020	05 October 2020
Adjustments	06 October 2020	02 November 2020
Presentation to the board of examiners	03 November 2020	09 November 2020
End of the project	09 November 2020	09 November 2020

Relevant historical information

This is a personal project created by the project sponsor. The idea for this project originated after taking classes in interior decorating. The project is designed to create an extra income as well as provide a social and creative outlet for the community in alliance with local businesses.

Stakeholders

Direct stakeholders:

FGP lecturer

Tutor

Project manager

Project sponsor

Indirect stakeholders:

Academic assistant

Reviewers

Project manager: Elky Mug Salas

Signature:

Authorized by:

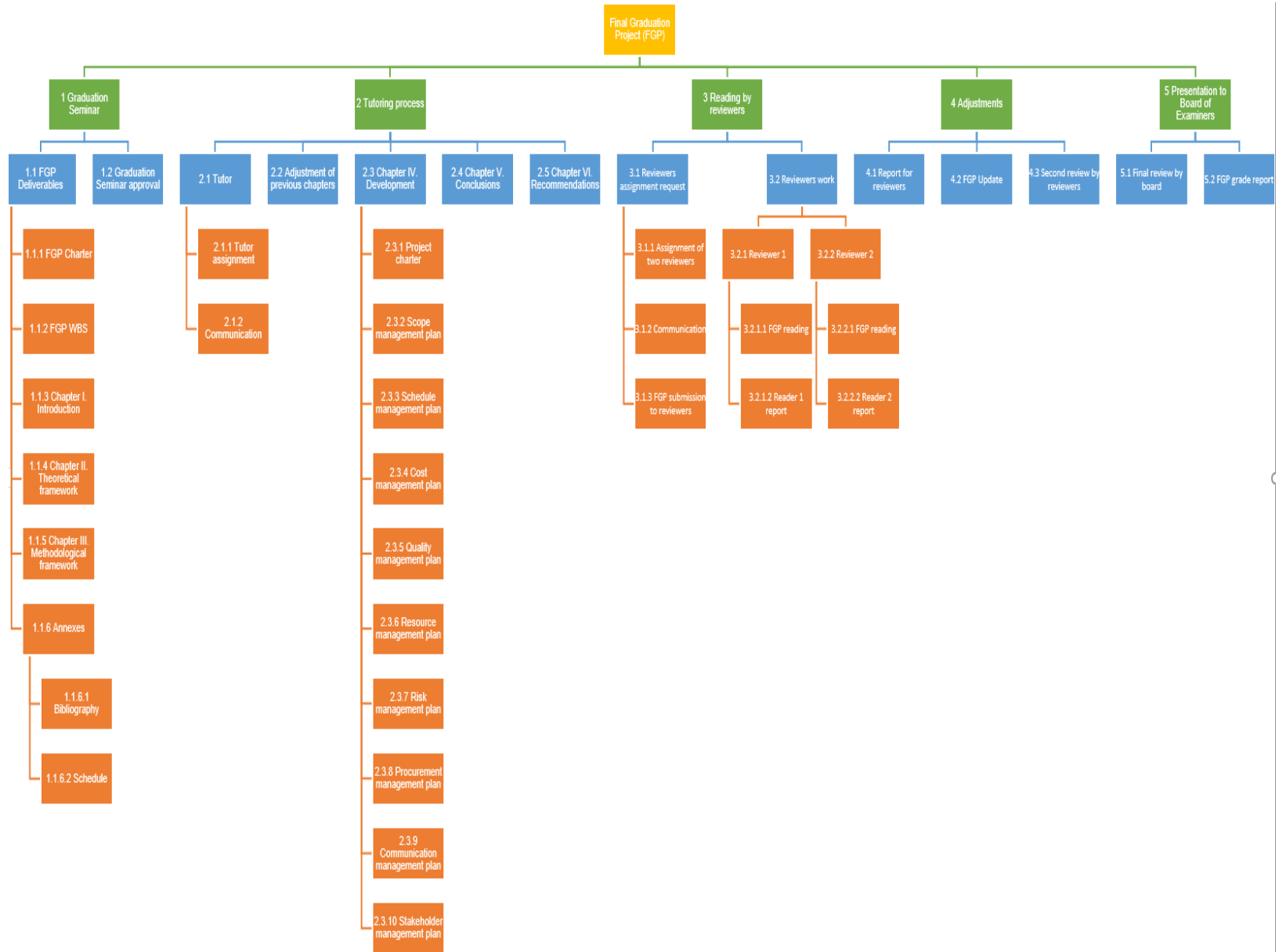
Signature:

Appendix 2: FGP WBS

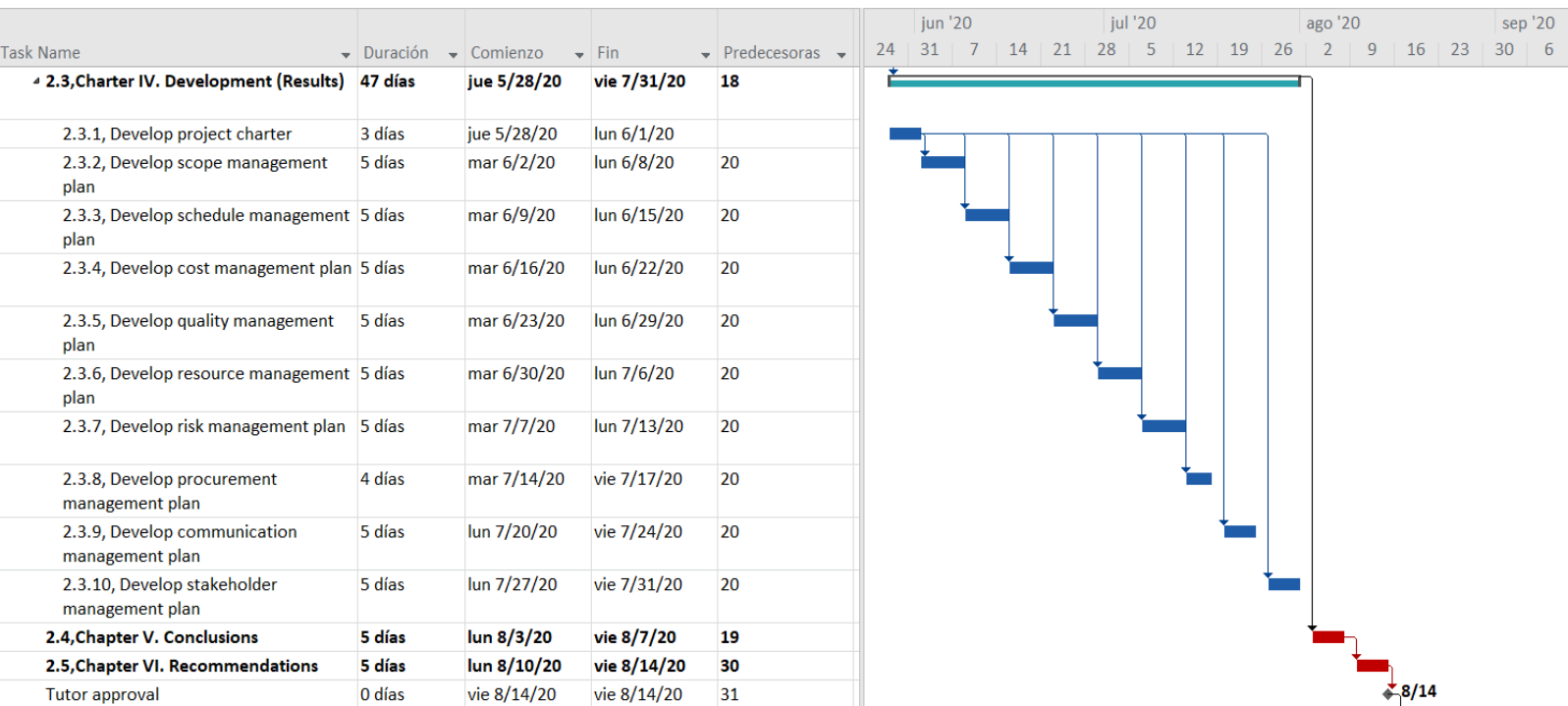
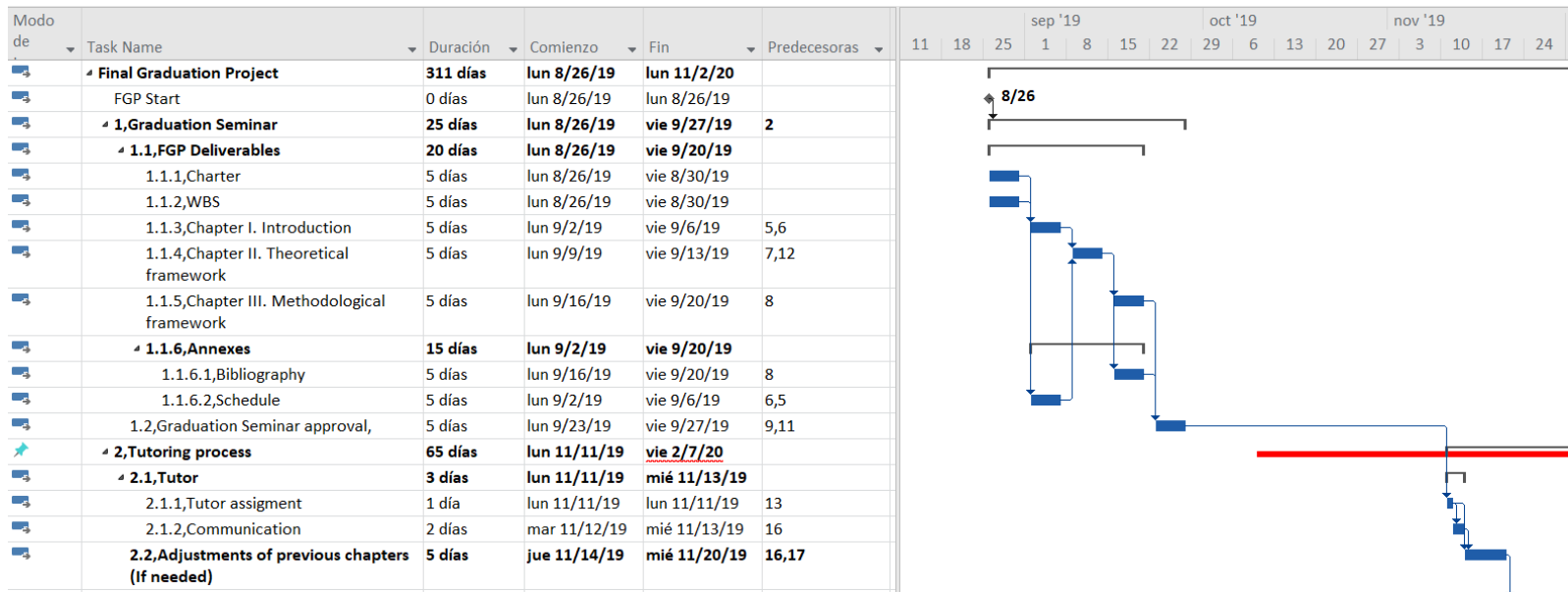
Final Graduation Project Work Breakdown Structure

0	Final Graduation Project
1	Graduation seminar
1.1	FGP deliverables
1.1.1	FGP charter
1.1.2	FGP WBS
1.1.3	Chapter I. Introduction
1.1.4	Chapter II. Theoretical Framework
1.1.5	Chapter III. Methodological Framework
1.1.6	Annexes
1.1.6.1	Bibliography
1.1.6.2	Schedule
1.2	Graduation seminar approval
2	Tutoring process
2.1	Tutor
2.1.1	Tutor assignment
2.1.2	Communication
2.2	Adjustments of previous chapters
2.3	Chapter IV. Development
2.3.1	Project charter
2.3.2	Scope management plan
2.3.3	Schedule management plan
2.3.4	Cost management plan
2.3.5	Quality management plan
2.3.6	Resource management plan
2.3.7	Risk management plan
2.3.8	Procurement management plan
2.3.9	Communication management plan

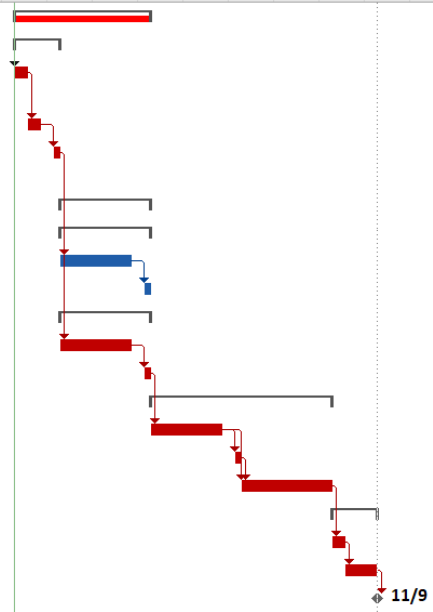
2.3.10	Stakeholder management plan
2.4	Chapter V. Conclusions
2.5	Chapter VI. Recommendations
3	Reading by reviewers
3.1	Reviewer assignment request
3.1.1	Assignment of two reviewers
3.1.2	Communication
3.1.3	FGP submission to reviewers
3.2	Reviewer work
3.2.1	Reviewer 1
3.2.1.1	FGP reading
3.2.1.2	Reader 1 report
3.2.2	Reviewer 2
3.2.2.1	FGP reading
3.2.2.2	Reader 2 report
4	Adjustments
4.1	Report for reviewers
4.2	FGP update
4.3	Second review by reviewers
5	Presentation to the board of examiners
5.1	Final review by the board
5.2	FGP grade report



Appendix 3: FGP Schedule



Task Name	Duration	Start	Finish	Predecessors	Aug '20				Sep '20				Oct '20				Nov '20		
					2	9	16	23	30	6	13	20	27	4	11	18	25	1	8
3, Reading by reviewers	15 days	Tue 9/15/20	Mon 10/5/20																
3.1, Reviewers assignment request	5 days	Tue 9/15/20	Mon 9/21/20																
3.1.1, Assignment of two reviewers	2 days	Tue 9/15/20	Wed 9/16/20	32															
3.1.2, Communication	2 days	Thu 9/17/20	Fri 9/18/20	35															
3.1.3, FGP submission to reviewers	1 day	Mon 9/21/20	Mon 9/21/20	36															
3.2, Reviewers work	10 days	Tue 9/22/20	Mon 10/5/20																
3.2.1, Reviewer	10 days	Tue 9/22/20	Mon 10/5/20																
3.2.1.1, FGP reading	9 days	Tue 9/22/20	Fri 10/2/20	37															
3.2.1.2, Reader 1 report	1 day	Mon 10/5/20	Mon 10/5/20	40															
3.2.2, Reviewer	10 days	Tue 9/22/20	Mon 10/5/20																
3.2.2.1, FGP reading	9 days	Tue 9/22/20	Fri 10/2/20	37															
3.2.2.2, Reader 2 report	1 day	Mon 10/5/20	Mon 10/5/20	43															
4, Adjustments	20 days	Tue 10/6/20	Mon 11/2/20																
4.1, Report for reviewers	9 days	Tue 10/6/20	Fri 10/16/20	44															
4.2, FGP update	1 day	Mon 10/19/20	Mon 10/19/20	46															
4.3, Second review by reviewers	10 days	Tue 10/20/20	Mon 11/2/20	46,47															
5, Presentation to Board of Examiners	5 days	Tue 11/3/20	Mon 11/9/20																
5.1, Final review by board	2 days	Tue 11/3/20	Wed 11/4/20	48															
5.2, FGP grade report	3 days	Thu 11/5/20	Mon 11/9/20	50															
FGP End	0 days	Mon 11/9/20	Mon 11/9/20	51															



Appendix 4: Project Charter Meeting Minutes

2019-12-14

Meeting Notes

Initial meeting to determine the Work breakdown structure

Attending

Project Sponsor: Michelle Felser

Project Manager: Elky Mug

Announcements

- No announcements made

Discussion

- Defined objectives
- First draft of the project's work breakdown structure was developed.
- Project stakeholders
- Resources

Appendix 5: Document Revision Letter and Philologist Credentials

San José, September 14th, 2020

Universidad para la Cooperación Internacional

To Whom It May Concern:

Natalia Alvarado Mata, identification number 305030705, Bachelor in English with a focus on translation, hereby states that the project titled: **PROJECT MANAGEMENT PLAN FOR THE SUSTAINABLE PLANT NIGHT EVENTS PROJECT IN SAN JOSE, COSTA RICA**, carried out by Elky Mug, has been revised.

The project was carried out to obtain the **Master in Project Management (MPM)** Degree. Aspects such as paragraph form, language quirks in written language, orthography, punctuation, and other aspects related to syntax and grammar were inspected and proofread. Therefore, taking into account the changes that were made, the project is ready to be presented.

Sincerely,

Natalia Alvarado



Natalia Alvarado Mata

English Translator and Proofreader

natalia.alvarado@filologos.cr

**NATALIA
ALVARADO
MATA (FIRMA)**

Digitally signed by NATALIA ALVARADO
MATA (FIRMA)
DN: SERIALNUMBER=CPF-03-0503-0705,
SN=ALVARADO MATA, G=NATALIA, C=CR,
O=PERSONA FISICA, OU=CIUDADANO,
CN=NATALIA ALVARADO MATA (FIRMA)
Reason: Filólogos CR
Location: Costa Rica
Date: 2020-09-14 10:46:23
Foxit Reader Version: 9.7.1

Natalia Alvarado Mata

Cartago, Costa Rica. | natalia.alvarado@filologos.cr

Education

CURRENTLY COURSING THE LICENCIATURA FOR TRANSLATING IN UNIVERSIDAD INTERNACIONAL DE LAS AMÉRICAS

BACHELOR'S DEGREE IN ENGLISH WITH A FOCUS ON TRANSLATION | APRIL 2019 | UNIVERSIDAD INTERNACIONAL DE LAS AMÉRICAS

BACHILLERATO EN EDUCACIÓN MEDIA | DECEMBER OF 2014 | COLEGIO MIRAVALLE

Skills

LANGUAGES

- High education on English since 3 years of age.
- Knowledge of Danish acquired by residing in Denmark for a year.
- Undertaking German lessons. Currently coursing level A2 of the Common European Framework of Reference for Languages.
-

ABILITY TO INTERACT WITH PEOPLE FROM DIFFERENT CULTURES

- The experience that I acquired when I lived in Denmark for a year allowed me to coexist with people from all over the world who have different thoughts and perspectives. This makes it easier for me to interact with people who come from different backgrounds than mine.
-

COMMUNICATION

- Able to work in multidisciplinary groups
- Creativity
- Responsibility
- Initiative and Innovation

Experience

TRANSLATOR | FILOGOS.CR | 20/08/19

Translator from Spanish to English and English to Spanish.

PROOFREADER | FILOGOS.CR | 20/08/19

Proofreader of English texts.

ENGLISH TEACHER | CACIQUE GUARCO SCHOOL | 6/03/18 – 30/04/18

University Communal Work. Preschool level. Objective: To teach children basic English words in order to make their transition to first grade smoother.

Certifications

- TOEIC English certification.
- Costa Rica's Goethe Institute certificate in the A2a level in German.