

**Manila Community Center Garden:
Cultivating Environmental Consciousness
Through a Communal Outdoor Space**



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Problem Background and Statement

The Manila Community Center currently has no outdoor meeting area to provide for outdoor education, a community meeting place, and as a gateway to the Manila Dunes. With the many users which frequent this area, the elementary school, day care center, Friends of the Dunes and community members in general, it is important to provide an area to facilitate outdoor education and provide a common space which can be utilized by all. The Manila Community Center is located near the shore, with public access to the beach via two trails. The landscape surrounding the Community Center and the trails is generally underdeveloped, with the exception of twelve small raised beds that are currently maintained by the school's staff and students.

Goals and Objectives

Goal 1: To create community cohesiveness through a communal outdoor space.

Objective for Goal 1: To provide a place for elementary students, preschoolers, community members and the Friends of the Dunes to meet independently or casually together and be able to conduct meetings and learning activities.

Goal 2: Create opportunities for students and community members to learn about native vegetation.

Objective for Goal 2: Enhance the native vegetation area at the Manila Community Center adjacent to the existing garden area by May 2005 with contributions from Dunes of Discovery, Americorps Volunteers, and interested community members.

Goal 3: Aesthetically enhance the entire garden area at the Manila Community Center for the enjoyment of its users as well as the general public.

Objective for Goal 3: We want to have this accomplished by May 2005 and have the aesthetics be up to the standards of the Manila Community Members.

Goal 4: Encourage and provide more opportunities for students at the Dunes of Discovery Charter School to work on gardening projects.

Objective for Goal 4: Provide 4 raised beds for gardening and educational purposes to be used by the students of Dunes of Discovery Charter School.

Goal 5: Minimize the maintenance requirements in the garden as much as possible.

Objectives for Goal 5: Use predominantly native plants which are adapted to coastal environment and will require little water and nutrient input.

Alternatives

Alternative A:

- Build an outdoor classroom to function as a meeting place for community members and Manila Community Center users alike. The outdoor classroom would consist of 2 rows of 3 tables each with a bench on one side, all facing the same direction, toward a chalkboard.
- Establish a native plant area adjacent to the outdoor classroom wherein students and other interested community members can learn about and experience native plants. A variety of native plants will be donated by local nurseries.
- Implement features in the native plant garden area that enhance the aesthetics of the entire area. These features would include:
 - a native plant 'tepee', a structure comprised of 8 posts arranged into a tepee design upon and around which native plants can grow
 - a living fence consisting of willows and fruit trees planted around the perimeter of the existing planter box garden
- Designate outdoor garden space wherein students can actively learn as they garden.
- Hold a work day on Friday, April 15th on which students can learn about various aspects of gardening, including planting, design, and maintenance.
- Involve students in ongoing daily or weekly maintenance of the native plant garden area.
- To minimize garden maintenance, especially in summer months, utilize plants that are well-adapted to the coastal environment. Furthermore, use weed mats and mulches to reduce weed invasion.

Alternative B:

- Designate an existing indoor space within the community center as a meeting place for community members and Manila Community Center users alike. This area could be a classroom or gymnasium that is available at convenient times during the week.
- Educate users of the meeting place about native plants through the use of posters pinned or taped to the walls, as well as the exhibit of live native plant specimens either set up in the meeting place or planted in the existing planter boxes.
- Hire a landscaper to design and implement aesthetic features in and surrounding the existing planter box garden, such as a rock pathway or wooden fence.
- Expand the current use of planter boxes for student gardening projects and learning opportunities.

- Hold a work day on Friday, April 15th on which students can learn about various aspects of gardening, including planting, design, and maintenance.
- Involve students in ongoing daily or weekly maintenance of the planter box garden area.
- To minimize garden maintenance, especially in summer months:
 - Utilize plants that are well-adapted to the coastal environment
 - Use weed mats and mulches to reduce weed invasion
 - Apply liquid fertilizer
 - Install a sprinkler system for those plants that require more water than is available naturally

Alternative C:

- Establish an informal outdoor area consisting of a lawn space and six benches as a meeting place for community members and Manila Community Center users alike.
- Develop seminars and/or workshops put on by Friends of the Dunes designed to inform and educate students and community members.
- Redesign planter box garden area using existing structures to be both functional and aesthetically pleasing.
- Arrange monthly student field trips to the Arcata Educational Farm and other community gardens.
- Hold a work day on Friday, April 15th on which students can learn about various aspects of gardening, including planting, design, and maintenance
- To minimize garden maintenance, especially in summer months:
 - Plant hardy lawn grasses surrounded by native shrubs, both of which will be able to withstand the summer months with limited watering by Manila Community Center staff.

Alternative D:

- Build an outdoor classroom to function as a meeting place for community members and Manila Community Center users alike. The outdoor classroom would consist of 2 rows of 3 tables each with a bench on one side, all facing the same direction, toward a chalkboard.
- Establish a native plant area adjacent to the outdoor classroom wherein students and other interested community members can learn about and experience native plants. A variety of native plants will be donated by local nurseries.
- Develop seminars and/or workshops put on by Friends of the Dunes designed to inform and educate students and community members.
- Educate users of the meeting place about native plants through the use of posters pinned or taped to the walls.

- Implement features in the native plant garden area that enhance the aesthetics of the entire area. These features would include:
 - a native plant 'tepee', a structure comprised of 8 posts arranged into a tepee design upon and around which native plants can grow
 - a living fence consisting of willows and fruit trees planted around the perimeter of the existing planter box garden
- Arrange monthly student field trips to the Arcata Educational Farm and other community gardens.
- Designate outdoor garden space wherein students can actively learn as they garden.
- Hold a work day on Friday, April 15th on which students can learn about various aspects of gardening, including planting, design, and maintenance.
- To minimize garden maintenance, especially in summer months:
 - Utilize plants that are well-adapted to the coastal environment
 - Use weed mats and mulches to reduce weed invasion
 - Install a sprinkler system for those plants that require more water than is available naturally
 - Use companion planting techniques that take advantage of the benefits provided by various plants

Weighted Criteria Matrix

Criteria	Alternative A	Probability	Alternative B	Probability	Alternative C	Probability	Alternative D	Probability
Money/Costs	9	0.95	5.5	0.8	9.5	0.9	2	0.95
Meet Time Constraints of Class	8	0.7	9	0.85	9	0.8	4	0.95
Maintenance after Completion	8	0.85	7	0.7	9	0.8	7	0.7
Support from Community Possible	9	0.9	6	0.75	9	0.8	9	0.9
Meet Goals and Objectives	9.5	0.85	6	0.9	9.5	0.75	3	0.9
Total		45.725		34.05		43.225		30.425

Implementation Strategies

We chose to implement Alternative A at the Manila Community Center. We convinced the members of the Manila Community Center that Alternative A was right for them by designing our goals and objectives around the specific needs of the Community Center. Prior to creating our proposal we held several informal meetings with the different groups associated with the Manila Community Center. We were then able to identify their goals, needs and desires by listening to suggestions, comments and their specific visions for the community center. While designing our proposal we tried to pick projects that were within our scope and that could be completed within the timeframe we had available. We were able to convince the members of the community center to move forward with the project by showing enthusiasm and dedication to the project and expressing our desire to meet the collective needs expressed by their overall vision.

Project Responsibilities

1. *Movement of Compost*: Ari and Stacey will move existing compost to a new location by April 6, 2005. They will also start new compost in a compost bin purchased by the Manila Community Center.
2. *Native Plant Area*: Ari, Grant, Stacey, Dunes of Discovery staff and students, Americorps Volunteers, and other members of the Manila Community Center will hold a work day on April 15, 2005 to establish a native plant area.
3. *Student Involvement*: Ari, Grant, Stacey, Dunes of Discovery, and Americorps Volunteers will facilitate student involvement in pulling weeds and planting on April 15, 2005 during the scheduled workday. Student involvement will be encouraged whenever the project at hand seems to be appropriate for the specific age level of children. Currently students have been invited to help with the relocating of the compost and in the building of the benches, tables, and chalkboard.
4. *Living 'Tepee'*: Ari, Grant, and Stacey will have 'tepee' structure built and installed in the garden area by April 20, 2005. Ari, Grant, and Stacey will attach a trellis to the 'tepee' and plant various beans around base of 'tepee' by May 2, 2005.
5. *Peninsula Clean-Up Day*: Ari, Grant, and Stacey will assist the Manila Community Center staff, Americorps representatives, and numerous community volunteers in clearing the native garden area of weeds and garbage on April 23, 2005.
6. *Outdoor Classroom*: Grant will cut, and Ari, Grant, and Stacey will build and stain 3 benches and 3 tables by April 13, 2005. They will design the layout of the classroom, and dig post holes for the benches and tables by April 22, 2005. They

will secure the benches and tables in the holes with braces and cement them into the ground by April 26, 2005. They will also cut, build, and stain the chalkboard as well as secure chalkboard posts and cement them into holes that have been dug by April 27. Ari, Grant, and Stacey will have completed the installation of the outdoor classroom by May 2, 2005.

Monitoring and Evaluation Plan

In order to determine the effectiveness of the implemented solution (Alternative A) and whether its goals and objectives are being met, a monitoring and evaluation plan was developed.

Outdoor classroom as a communal outdoor space to create community cohesiveness:

- Monitor if use of outdoor classroom is consistent and frequent by members of the community center. Monitoring would be useful at least once or twice a month during the daytime on a weekday and will be carried out by Dunes of Discovery staff and/or Americorps volunteers.

Opportunities for native vegetation exposure and education:

- Determine if native plant areas that were established during the April 15, 2005 workday are being maintained and enjoyed. Monitoring would be useful at least twice a month to make sure plants are doing well. Evaluation of the level of exposure to visitors and members alike can be observed by Manila Community Center staff during weekdays.
- Monitor the occurrence of vandalism and habitat disturbance by walking around the native plant area and making observations, which can be carried out by Manila Community Center staff.

Establishment of an aesthetically pleasing environment surrounding the existing planter boxes:

- Monitor whether the bean tepee is retained, and that plants are successfully growing there, which can be carried out by Manila Community Center staff.
- Monitor the relocated planter boxes on the periphery of the garden to ensure that the plants are healthy and robust, which can be carried out by Manila Community Center staff.

Continuation and increase of garden activities as initially established by the Manila Community Center staff:

- Monitor whether presence of the outdoor classroom facilitates and improves the occurrence of outside garden activities, which can be carried out by Dunes of Discovery staff.

If more community functions are held at the Community Center this coming year (May 2005-May 2006) than in the previous year (April 2004-April 2005) then the Community Center will know that they have been successful in accomplishing their main goal of community cohesiveness. At the end of the year period in May 2006 the figures will be reported to Beverly Prosser, Head of Manila After-School Recreation & Manila Community Services at which time she can determine the overall success of the project.

Log of Time

Date	Group Member	Activities	Hours	
2/7/2005	All	Brainstorm	1	
2/9-2/16	Ari	Garden Research	4	
2/16-2/23	Stacey	Grant Research	3	
2/9-2/24	Grant	Phone Calls	3	
28-Feb	All	Dave Deason	3	
1-Mar	Grant	Meeting w/ Michelle Wiler and Americorps	3	
3/2/2005	All	Meeting w/ Simone Watts; Dunes of Discovery	3	
3/3-3/7	All	Solicit Plant Donations	2	
3/9/2005	All	Planning	3	
3/28/2005	Grant	Hardware Store	2	
3/30/2005	All	Pick-up Plant Donations	3	
4/6/2005	Ari and Stacey	Move Compost	2	
4/6/2005	Grant	Sawing and Measuring	2	
4/11-4/13	All	Building Tables and Benches	7	
4/15/2005	All	Planting Day	6	
4/18/2005	All	Staining	4	
4/19/2005	Grant	Cut Wood for Tepee	2	
4/20/2005	Ari and Stacey	Build Tepee	4	
4/21/2005	All	Move Beds	2	
4/22/2005	All	Dig Post Holes and Measuring	3	
4/23/2005	Ari and Stacey	Peninsula Clean-up Day/Working in Garden w/ Volunteers	4	
4/25-4/26	All	Cementing and Measuring	8	
4/27/2005	All	Chalkboard	2	
4/27/2005	All	Weed Mat and Mulching	3	
4/29/2005	Grant and Stacey	Weed Matting/Mulching/Trellising Tepee	2	
4/29/2005	Grant and Stacey	Native Grass Planting	1	
			82	Total
			65	Grant
			64	Ari
			58	Stacey
			187	Grand Total