

We are students from Worcester Polytechnic Institute who for the past seven weeks have worked with the United States Forest Service to help create a restoration and design plan for Baño Grande, Baño de Oro, and an army barracks. By taking field measurements, conducting interviews and surveys, as well as performing cost analyses, we were able to come up with what we believe to be the most feasible ideas for each structure.

In this pamphlet are our top recommendations for each site.

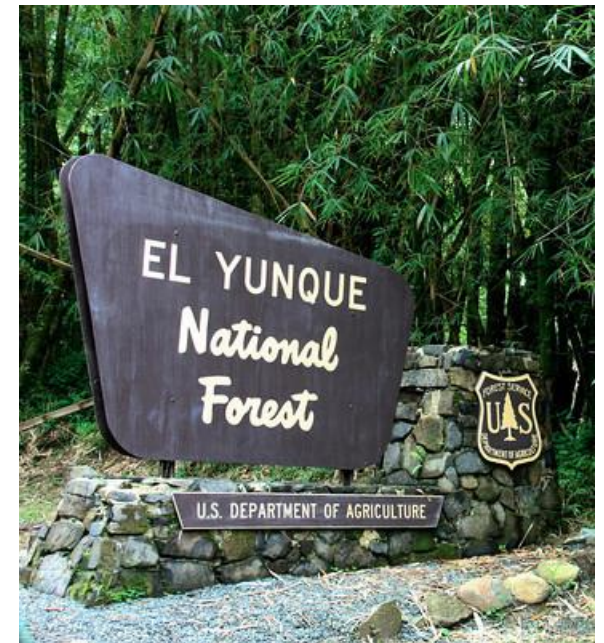


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# Feasible Restoration of El Yunque National Forest Structures



Rendered designs and cost analyses  
for Baño Grande,  
Baño de Oro, and  
Army Barracks



## Baño Grande

Baño Grande has an eighteen foot deep circular swimming pool that is reinforced by concrete and fed by La Mina River. Baño Grande was first opened in 1936 as a recreational swimming pool along with a bathhouse for the public. These structures were closed in 1968 and have been out of use since. It is proposed that the Baño Grande pool be kept as a photo spot for safety and ease, but the bathhouse to be restored into a Café to create some revenue for this site.

	Photo Spot	Recreational Swimming Pool
Restoration Cost	\$6,257 - \$15,520	\$14,762 - \$24,661
Yearly Expenses	\$0	\$30,000
Yearly Revenue	\$0	\$54,750 (50 customers/day) (average purchase: \$3)
Return on Investment after 5 Years	0%	56.7%
Return on Investment after 10 years	0%	68.6%

	Cafe	Changing Rooms
Restoration Cost	\$11,577 - \$29,260	\$10,139 - \$21,562
Yearly Expenses	\$30,000	\$10,000
Yearly Revenue	\$54,750 (50 customers/day) (average purchase: \$3)	\$18,250 (25 customers/day) (average purchase: \$2)
Return on Investment after 5 Years	52.7%	27.5%
Return on Investment after 10 years	66.3%	50.1%



## Baño de Oro

Baño de Oro has a rectangular pool that is reinforced by concrete and is fed by an unnamed stream. The pool varies from 18 inches to 8 feet at its deepest point. Baño de Oro is also accompanied by a bathhouse and both were used for a short period of time after the 1930s. The site is currently overcome with vegetation and is in disrepair. It is proposed that the pool is cleaned and reopened as a recreational and handicap accessible wading pool and the bathhouse to be turned into a concession stand.

	Wading Pool	Flower Garden
Restoration Cost	\$16,888 - \$22,463	\$50,927 - \$53,127
Yearly Expenses	\$30,000	\$0
Yearly Revenue	\$54,750 (50 customers/day) (average price to swim: \$3)	\$0
Return on Investment after 5 Years	58.7%	0%
Return on Investment after 10 years	69.8%	0%

	Concession Stand	Flower Exhibit
Restoration Cost	\$16,369 - \$36,739	\$14,670 - \$29,357
Yearly Expenses	\$30,000	\$30,000
Yearly Revenue	\$54,750 (50 customers/day) (average purchase: \$3)	\$18,250 (25 customers/day) (average purchase: \$2)
Return on Investment after 5 Years	46.6%	-49.1%
Return on Investment after 10 years	62.6%	-44.6%



## Army Barracks

The Army Barracks was used as army housing during World War II, and was then used as an aviary for the Puerto Rican Parrot in the 1980s for about ten years. The aviary has been relocated and the army barracks has been out of use since. The building is around 6,000 square feet and approximately 19 rooms. It is proposed to be restored into a hostel.

	Hostel	Hotel
Restoration Cost	\$165,267 - \$394,360	\$178,778 - \$418,160
Yearly Expenses	\$60,000	\$150,000
Yearly Revenue	\$164,250 (15 customers/day) (average purchase: \$30)	\$438,000 (10 customers/day) (average purchase: \$120)
Return on Investment after 5 Years	18.3%	87.5%
Return on Investment after 10 years	65.2%	128%

