

1 INTRODUCTION

The Bureau of Reclamation Sacramento Region (Reclamation) retained Kleinfelder Incorporated (Kleinfelder) to prepare an engineering and condition assessment evaluation of improvements and site conditions within the seven (7) concession areas located on Federal land at Lake Berryessa, California (Plate 1) The seven concession areas, or resorts, are:

1. Putah Creek Resort
2. Rancho Monticello
3. Lake Berryessa Marina
4. Spanish Flat Resort
5. Steele Park Resort
6. Pleasure Cove Resort
7. Markley Cove Resort

The total affected area encompasses approximately 400 acres. The assessments included buildings, waste water system(s), potable water system(s), roads, parking lots, boat ramps, electrical system(s), shoreline developments (retaining walls, stair ways, etc.), marinas (docks, slips and fueling systems) and detrimental environmental activities.

The work was performed in two phases. A Building Condition Assessment was performed first and was reported separately. This work is summarized briefly in Section 2 of this report. The second phase of work was the remainder of the facility conditions assessment. The criteria for the assessments is summarized in Section 3 of this report and Sections 4 through 10 present the findings on a resort by resort basis.

1.1 Project Objectives

The purpose of the Facility Condition Assessment was to conduct a planning level engineering evaluation of concessionaire improvements constructed on Federal land within the seven concession management areas at Lake Berryessa. The engineering evaluation of the improvements' condition yielded recommendations for demolition/removal or retention for possible future reuse. Recommendations are supported by planning level cost estimates. Cost estimates provide guidance on the costs for improving the service life of facilities and achieving compliance with current construction codes. Some facilities were designated by Reclamation not to be retained because of their obvious condition problems, poor location, or other reasons determined by the government. Those facilities so designated were not included as part of this effort. Cost estimates for removal, demolition, upgrade or rehabilitation of the existing buildings was not part of this assessment except for a representative cost on abandoned trailer removal. Finally, a further objective of this work is to provide information of use in future design efforts for new facilities.

1.2 Approach

To perform this Facility Condition Assessment Kleinfelder assembled a highly qualified team of senior professionals from within Kleinfelder and other area firms. These team members are summarized below:

TEAM MEMBERS LAKE BERRYESSA FACILITY ASSESSMENT

| KLEINFELDER | ASSIGNMENT |
|--------------------------------|-------------------------------|
| Randy Wheeler | Project Manager |
| Tom Ries | Shoreline Development |
| David Cook | Hazardous Materials |
| John Nicolini | Building Condition Assessment |
| Terry Craven | Roads and Parking Lots |
| WINZLER & KELLY | Engineering Evaluation |
| Kent Von Aspern | Waste Water |
| Alex Culick | Potable Water |
| Craig Lewis | Boat Launch/Marinas |
| Larry Lewis | Boat Launch/Marinas |
| Benjamin Jordan | Waste/Potable Water |
| Tiffany Pham | Marinas/Boat Launch Ramps |
| Tanya Voisin | Waste/Potable Water Systems |
| Sam Fedeli | Boat Dock Fueling Systems |
| MOUNTAIN PACIFIC SURVEY | |
| Peter Lynch | Survey, Mapping, GIS |
| ELECTRODESIGN | |
| Thomas Numelin | Electrical Systems |

The team members began the assessment process by reviewing background data made available by Reclamation. This information included the following:

- *Inventory for Engineering Evaluation & Condition Assessment Report by resort.*
This report, prepared by Ms. Cheryl Riley of the U.S. Department of the Interior, Bureau of Reclamation, contained a summary of existing buildings and structures, including color photographs, of each of the buildings to be surveyed.
- *Topographic maps of each facility (for survey and mapping phase).*
Electronic and hardcopy versions of previous topographic maps prepared by others, were

provided to Kleinfelder and Mountain Pacific Survey. The topographic maps provided were compiled in both metric units and standard english units (feet). Per Reclamation guidance, the NAD83/NAVD 88 control monuments established at the lake by Reclamation, were utilized for the basis of the coordinate systems. Unfortunately, these datums were not the basis for either of the previous topographic mapping products provided by Reclamation.

1.2.1 Site Visits

The Kleinfelder team conducted site visits and inspections at each resort to assess and present site conditions. These limited inspections of permanent concession structures were used to identify and address deteriorated or otherwise unsatisfactory component and material conditions. Our inspections included opinions specific to useful service life expectancy and identify deferred maintenance items, which are considered above and beyond the standard of normal maintenance and/or repairs over the long term. As it applied to this assessment, “Long Term” was defined as determining system or component usefulness beyond the year 2009 and going forward approximately 15 years (2024).

1.2.2 Mapping

The aerial mapping effort at Lake Berryessa was undertaken in early May of 2002 and performed by Mountain Pacific Survey of Fairfield, California. Upon completion of the initial research required to develop the appropriate datum and GPS control network, field crews placed and controlled ground targets to facilitate the aerial mapping effort. The aerial consultant flew the site and compiled the required mapping at the selected areas. The mapping product was compiled at 1”=200’ with a 5’ contour interval using NAD 83/NAVD 88 control monuments.

More detailed discussion on the survey and mapping is provided in Chapter 11 of this report.

1.2.3 Data Evaluation and Cost Estimates

Site visits and background data yielded observations for comparison against standards and criteria for such facilities if constructed today. These criteria and evaluation procedures are described in more detail in Section 3 of this report.

All costs associated with the preliminary estimate are based on present worth of the removal and replacement costs of subject items and are considered suitable for a planning level study. The determination of items to be removed or replaced is based on meetings with the Bureau of Reclamation concerning the envisioned future use plan. The unit material costs for the improvements were developed from both discussions with potential vendors and suppliers and from estimates developed for projects with similar items. The cost information includes labor costs based on prevailing rates in the project region. The costs also reflect current codes, standards, guidelines and regulating agencies. In the case where an improvement fitting the

future use plan may be retained, the costs presented reflect the upgrade to current codes and standards.

The cost information provided represents the future plan for the concession areas as understood through meetings with the Bureau of Reclamation. It will be necessary to update the information as the project scope evolves and escalate the cost data for use at the termination of the concession contracts.