

Appendix V. Visual Resources

This technical appendix describes the procedures followed in conducting the visual preference survey of Mono Lake visitors and summarizes the results of the survey. The photosimulations of Mono Lake under alternative lake level conditions that were used in the preference survey also are shown.

The objectives of the visual preference survey were to obtain judgments of scenic quality of scenes depicting Mono Lake at different lake levels, to determine preferences for those scenes, and to identify key elements that affect scenic quality. The surveys used a total of 25 photographic images of Mono Lake (Table V-1). Five different scenes were represented, including South Tufa, Mono Lake County Park, the Mono Lake Vista Point along U.S. Highway 395 (U.S. 395) near Conway Summit, the U.S. Forest Service Visitors Center, and U.S. 395 at a point west of the Old Marina. Five variations of each of the scenes named above were simulated, each depicting a different lake surface elevation: 6,372 feet, 6,374.5 feet (the lake elevation that existed at the time the baseline photographs were taken), 6,380 feet, 6,390 feet, and 6,410 feet (Figures V-1 through V-5).

In September 1992, interviews of Mono Lake visitors were conducted at South Tufa (at the parking lot), Mono Lake County Park (at the parking lot or immediately adjacent areas such as the deck on the east side of the county park building or the large lawn area just south of the parking lot), and at the Mono Lake vista point. Respondents were randomly selected. Interviews were conducted during the hours of approximately 9:00 a.m. to 5:00 p.m. A total of 30-35 persons were interviewed at each of the three sites. Interviews were conducted at the same site for consecutive days until a total of approximately 33 responses were obtained.

Each interview consisted of three presentations. First, a random order presentation of images was made. The goal of this step was to obtain the public's judgment of scenic beauty for each of the 25 scenes. The images were presented in random order according to the scene being represented (i.e., vista point, South Tufa, and others), as well as lake surface elevation depicted. Respondents were shown all 25 images, one at a time. The scenes presented were 9.5-inch-by-13.5-inch photographic prints of single-frame scenes (i.e., of South Tufa, the Mono Lake County Park, and U.S. 395 near Old Marina). For the two-frame panorama from the Forest Service Visitors Center, two 8.5-inch-by-23.5-inch photographs were used, and, for the three-frame panorama from the vista point, 6.5-inch-by-23.5-inch photographs were used. The scenes were shuffled between interviews. For each of the 25 scenes, respondents were asked to provide their judgments of the scenic beauty by rating each scene on a response scale of 1 to 10 and marking their responses on a printed form. Respondents were told to consider a rating of 1 to mean

very low scenic beauty and a rating of 10 to indicate very high scenic beauty. Each of the 25 scenes were rated by each respondent.

Once all 25 scenes had been individually rated, a comparative presentation of the images was made. The goal of this step was to determine if, among five variations of one scene, members of the public had a preference, and if so, what their preferences were. Five display boards were used for this component of the survey. Each of the five boards displayed the photographic images depicting the five lake surface elevations from one location. For example, one board displayed all five lake elevations as depicted in the scene from the Forest Service Visitors Center (Figure V-4). Another displayed all five as seen from Mono Lake County Park (Figure V-2). The images were arranged on the display board in order from lowest to highest lake surface elevation to allow direct comparison. The display boards were presented to respondents one at a time and in random order of scene depicted (viewpoint). The display boards were shuffled between interviews. For each board, after viewing the images, respondents were asked if they had a preference for any of the images among the five being displayed. If they responded positively, they were asked to rank the five images on a scale of 5 to 1 with 5 the most preferred and 1 the least preferred. This procedure was repeated for each of the five display boards, one at a time, for each interview.

Finally, respondents were shown a series of photographs, each focusing on one of the landscape elements (such as water-based tufa, land-based tufa, or playa) and asked to rate the importance of the element to the overall scenic beauty of the study area. The goal of this step was to identify, among the specific landscape features that are expected to be changed by project alternatives, those that contribute positively to the scenic quality of Mono Basin and their degree of importance, as well as the features that detract from scenic beauty. The rating scale for this step was from -5 to +5. Positive or negative ratings indicated a beneficial or adverse influence of an element on scenic beauty, and the number rating indicated the strength of the effect.

For each member of the public surveyed, the random presentation component of this study yielded one response (rating of scenic beauty) for each of the 25 scenes. For the comparative component, five responses (ranked from 1 to 5) were provided by each respondent for each of the five scenes (viewpoints). This process produced 2,500 responses for each component. These raw data were organized in tabular format, and, using the concepts and methods discussed in the USFS's Research Paper RM-293 and employing the USFS's analysis of ratings computer program, known as RMRATE, mean ratings were produced. From these data an analysis of variance (ANOVA) by stimuli (viewpoints and lake surface elevations) and by observer (respondents) was performed. The open-ended question yielded a list of features or conditions. Correlations between these responses were analyzed.

The results of these analyses are summarized in Tables V-2 through V-4.