United States Department of the Interior

FISH AND WILDLIFE SERVICE
San Francisco Bay-Delta Fish and Wildlife Office
650 Capitol Mall, Suite 8-300
Sacramento, California 95814

California Clapper Rail Survey Protocol

The California clapper rail was recently reclassified, and is now referred to in scientific literature as the **California Ridgway's Rail** (*Rallus obsoletus obsoletus*), but for the purposes of this document we will use the original name, **California Clapper Rail** (*Rallus longirostris obsoletus*) as that remains the listed entity under the Act.

Below is a description of the standard methodology used to detect the presence or absence of California clapper rails. Once a survey proposal using this survey methodology has been developed, it should be mailed or emailed to the San Francisco Bay-Delta Fish and Wildlife Office. The Service will review the survey proposal and determine if it is adequate for implementation. The qualifications, including copies of applicable 10(a)(1)(A) permit(s), of all observers proposed for a survey should be included in the proposal and provided to the Service for review and approval. (Note: Submit survey proposal with maps identifying the location of listening and playback stations to the Service at least three (3) weeks prior to the scheduled initiation of the surveys). Approval by the San Francisco Bay-Delta Fish and Wildlife Office to conduct surveys will be given via email to the applicant. After the surveys are completed, the survey results should be compiled and submitted to the San Francisco Bay-Delta Fish and Wildlife Office for review to determine if work or other activities proposed in the survey area may proceed.

Survey Methodology:

1. For each **project site** (or marsh), **survey stations** (individual survey locations) should be established so that the entire marsh is covered by 100-meter radius circular plots. Listening (passive) and call playback (active) survey stations should be established no more than 200 meters apart along transects in or adjacent to marsh areas. If the marsh in question is too large (e.g. Outer Bair Island) to accommodate this requirement, please contact us for alternative procedures. Survey stations should be located on levee crowns or boardwalks to minimize disturbances to marsh areas. When surveys are conducted within a marsh (as opposed to from the edge), listening stations should not be placed along slough or channel edges to minimize disturbance to rail species. We do recognize that this will not be possible at all times. A detailed map depicting sloughs and other marsh landmarks or features in relation to the proposed survey stations should be developed.
2. **Surveys** should be initiated between January 15 and February 1. For each survey station, four surveys are to be conducted: two (2) passive surveys, followed by two (2) active surveys. Surveys should be spaced at least two (2) weeks apart and should cover the time period from the date of the first survey through the end of March or mid-April. This will allow for the surveys to encompass the optimum time period when the highest frequency of calls is likely to occur. Survey at one project site may span multiple days if the project site is large or multiple observers are not available. Surveys should proceed until clapper rail(s) are detected. Once a clapper rail is detected, the project site is considered occupied. At this time, all active surveys within the project site shall be terminated. It is at the discretion of the surveying party as to whether or not to conclude passive surveys at this time.

3. Survey Duration

   Morning and evening surveys can be conducted. Morning surveys will be initiated no sooner than one hour before sunrise and extended no more than one hour after sunrise; evening surveys will begin one hour prior to sunset and extend no more than one hour following sunset.

   Passive surveys: An observer should be assigned to each survey station for the duration of two hours.

   Active surveys: An observer should be assigned to each survey station for the duration of 45 minutes. A total of 3 clapper rail calls will be broadcast at each survey station spaced at 15 minutes apart. Each broadcast will have a duration of 30 seconds and will include three vocalizations: duet, kek and kek-burr. Volume should be between 80-90 dB at 1-m in front of the speaker. Calls will start at the arrival of the surveyor at the station. Playback will be stopped immediately if a clapper rail predator (e.g., northern harrier, great blue heron, short-eared owl, cat, etc.) approaches within 100 m of the survey station or a clapper rail location.

   Trainees should familiarize themselves with various calls and with estimating distances to calls before training in the field. In-field training should include ways to minimize disturbance to rails and marsh vegetation. The 2004 "Rail Training Document" guidelines should be followed with the exception of guideline #6. Trainees should be stationed with an experienced California clapper rail observer for a minimum of four (4) surveys to assess the trainee's ability to accurately detect and map calls in the field. Surveyors should contact the San Francisco Bay-Delta FWO for recommendations on favorable training sites for new observers and their instructors.

4. All rail vocalizations should be recorded, noting the call type, location, and time on a detailed map of the marsh. The call types are coded as C = clapper/clatter, D = duet, K = kek, B=kek-burr, KH = kek-hurrah, SK = squawk and V = visual sighting. Other unusual calls also should be noted. If a rail is moving during the survey, several locations may be noted for the same bird(s).

5. Weather information, including wind velocities and direction, should be recorded. Information on disturbances (e.g., dogs or cats in marsh and aircraft flyovers) occurring during the surveys should be recorded.

   General Requirements:

1. A 10(a)(1)(A) permit is required to conduct active surveys. This 10(a)(1)(A) permit can be used to supervise other fully trained and qualified biologist as long as surveys are being conducted within sight distance of the 10(a)(1)(A) permit holder for all station locations.

2. Surveys should not be conducted when tides greater than 4.5 feet National Geodetic Vertical Datum (NGVD) as predicted at the Golden Gate occur at the marsh during the survey period or during full moon periods.

3. Surveys should not be conducted when wind velocities exceed 10 mph or wind gusts exceed 12 mph, or during moderate to heavy rains. If a survey of a marsh is conducted over more than one day in a row, observers should be assigned to stations adjacent to their previous day's station if at all possible.