U.S. FISH AND WILDLIFE SERVICE—SPOTLIGHT SPECIES ACTION PLAN (2010-2014)

Common Name: **Least Bell's vireo**
Scientific Name: ***Vireo bellii pusillus***
Lead Region: Pacific Southwest Region (Region 8)
Lead Field Office: Carlsbad Fish and Wildlife Office

Species Information:

Overview—The least Bell's vireo is the westernmost of four subspecies of Bell's vireo, a migratory songbird (passerine). Its current breeding range includes the northern portion of the Baja California peninsula, Mexico, and southern California. Historically, its range also included most of the Central Valley and portions of central coastal California. This unoccupied northern portion of the historical range used to support 60 to 80 percent of the population. Since listing, the vireo's abundance has increased approximately 10-fold and higher densities have been observed within their range; however, their overall range has not expanded appreciably since listing. Moreover, the northern portion of its current U.S. range is still sparsely populated compared to counties to the south. Few specifics are known about its breeding and wintering status in Mexico.

Status:	Endangered (51 FR 16474)
Recovery Priority Number:	9 (subspecies, moderate threat, high recovery potential)
Recovery Plan:	Draft Recovery Plan for the Least Bell's Vireo (*Vireo bellii pusillus*), 1998 [this plan has not been finalized]
Most Recent 5-Year Review:	September 21, 2006; recommended downlisting
Other:	Critical habitat: February 2, 1994 (59 FR 4845)

Threats:

Factor A: Nonnative invasive plants; watercourse development projects, including flood control, water impoundments (dams); changed hydrology from urbanization.
Factor E: Brood parasitism by brown-headed cowbirds (*Molothrus ater*).

Target: Downlist from endangered to threatened.

The goal is to reclassify the Least Bell's vireo, from endangered to threatened, such that it is no longer be in danger of extinction throughout all or a significant portion of its range (Table 1). This will be achieved by reducing threats and creating a "source population" for vireos in the northern portion of its current range (i.e., Los Angeles County or Ventura County) that will promote vireo population expansion and recolonization into the Central Valley and the Central Coast drainages. The Santa Clara River is an ideal location because it is geographically well positioned as a stepping stone to both the Central Valley and the Central Coast drainages, it is already occupied by the species, and because it has numerous willing partners already acquiring land and initiating riparian habitat restoration.

Table 1. Target–Measure–Action quick-reference guide. See "Actions" section for details.

Target	Measure	Action	Status	Duration/ Timeline	Approx. Cost	Cooperating Parties
Downlist	Publication of final rule	Publication of proposed rule	Ongoing current	Timeline: scheduled to be completed in 2010	TBD	USFWS
		Review of comments for development of final rule	Not started	Timeline: scheduled to be initiated in 2010	TBD	USFWS
	Increase numbers of least Bell's vireos along the Santa Clara River	Work with partners to initiate annual cowbird management.	Not started	Duration: Start with existing lands now; expand as lands are acquired. Timeline: 2 to 3 months for planning and contracting; traps placed in late March through nesting season.	Roughly about $2,000 per trap per season.	Supported by SCREMP Project Steering Committee (~30 members). Trapping contractors available.
		Work with partners to add to existing preserved areas by acquiring land through fee-title or conservation easements.	Ongoing current	Duration: Can start immediately. Timeline: Depends on availability of funds; willing sellers available now, others are anticipated within the next 5 years.	Land in the Santa Clara River valley costs about $750 to $75,000 per acre.	TNC and SCREMP Project Steering Committee (~30 members).
		Work with partners to initiate additional habitat restoration through nonnative plant removal and revegetation.	Ongoing current	Duration: Can start immediately. Habitat restoration takes 5 to 10 years. Timeline: 6 months for planning and contracting.	Roughly $70,000 per acre.	TNC and SCREMP Project Steering Committee (~30 members). Already occurring on TNC and FSCR lands.

Measure: Progress towards downlisting will be measured by:

1. Publication of final rule to downlist.
2. The increase in number of least Bell's vireos along the Santa Clara River by boosting nest productivity by reducing brood parasitism by cowbirds, and protecting and restoring/creating high-quality habitat.

Actions:

1. Develop proposed rule for publication in the Federal Register. This action will evaluate current threats and conservation measures that have been implemented for conservation of the Least Bell's vireo. Implementation of this action addresses Measure 1.

2. Review and evaluate proposed downlisting comments received from peer reviewers and the public, and ongoing monitoring results, and determine the most appropriate course of action for a final rule. Implementation of this action addresses Measure 1.

3. Work with partners to initiate cowbird management by annually trapping in existing preserves or other accessible areas along the Santa Clara River and expanding management as additional lands or access is acquired. This action implements Measure 2 and addresses threats under Factor E.

   There are no large-scale cowbird trapping programs in the northern portion of the vireo's current range, including the Santa Clara River. Coordination, planning, and funding are needed, but a number of partners and stakeholders are already working along the river. One estimate suggested the Santa Clara River could be covered by annually trapping at about 40 strategically placed locations. Similar efforts at Prado Basin and Camp Pendleton over the past 20 years have allowed these areas to become major vireo source populations, fueling the vireo's recovery in Orange, Riverside, and San Diego Counties.

   Service's role—Work with partners and stakeholders (see below) along on the Santa Clara River to maximize trapping coverage; provide funding. Potential examples include:

   - Section 6: Work with the State of California to apply for grants to fund long-term cowbird trapping along Santa Clara River.
   - Section 7: Work with Action Agencies to include compatible conservation measures, including cowbird trapping (or fund an endowment for such).
   - Section 10: Work towards establishing a regional plan and funding mechanism (endowment?).
   - Safe Harbors: Work with willing landowners to include cowbird trapping.
   - Partners: Work with landowners to allow cowbird trapping on (or access through) their land.
   - Contaminants: Work with Trustee councils to pursue oil spill restoration funds where appropriate to pay for or promote cowbird trapping and management.

Partners and stakeholders—The private and public partners already involved in Santa Clara River conservation projects have an opportunity to make the Santa Clara River into a vireo source population by including cowbird management.

The *Santa Clara River Enhancement and Management Plan (SCREMP)* Project Steering Committee members include: Acton Town Council, Beach Erosion Authority for Clean Oceans and Nourishment, California State Coastal Conservancy (SCC), California State Department of Fish and Game, California State Department of Parks, California State Department of Transportation, California State Regional Water Quality Control Board LA Region, Castaic Lake Water Agency, City of Fillmore, City of Santa Clarita, City of Santa Paula, City of Ventura, Friends of the Santa Clara River (FSCR), Los Angeles County Department of Public Works, Los Angeles County Sanitation District, National Marine Fisheries Service, Nature Conservancy, Newhall Land and Farming Company, Santa Clara Valley Property Owner's Association, Swift Financial Corp, United States Army Corps of Engineers, U.S. Fish & Wildlife Service, United Water Conservation District, Valley Advisory Committee, Ventura County Resource Management Agency, Ventura County Board of Supervisors, Ventura County Watershed Protection District, Vulcan Materials Company, Wildlife Conservation Board.

Estimated Costs—Cowbird trapping costs around $1,500 to $2,000 per trap per season, in part depending on the travel time and distance between traps (traps are checked daily). The number of traps depends on the size and configuration of the area. One expert suggested the riparian habitat areas along the lower and portions of the upper Santa Clara River could be covered by about 40 traps, but would require much travel between traps. Thus, a preliminary estimate suggests that trapping costs would likely be at the higher end of the projected $60,000- to $80,000-per-year range. Multiple years would be needed for the program to be effective.

4. Work with partners to add to existing preserved areas by acquiring land through fee-title or conservation easements. A portion of the lands acquired are currently suitable habitat for vireo and future restoration efforts are likely to result in additional suitable habitat. This action implements Measure 2 and addresses threats under Factor A.

A large-scale effort to protect land along the Santa Clara River is already underway, but additional funding is needed to purchase fee title lands or easements. The SCC and TNC have initiated land acquisition. About 1/3rd of the lower portion of the river (about 13.5 non-continuous miles totaling more than 2,000 acres) has been purchased from willing landowners. Most of the land along the Santa Clara River is privately held.

Service's role—Work with partners and stakeholders along on the Santa Clara River to maximize coverage of protected areas; provide funding. Potential examples include:

- Section 6: Work with the State of California to apply for land acquisition grants along Santa Clara River.

- Section 7: Work with Action Agencies to include compatible conservation measures for habitat preservation.
- Section 10: Work towards establishing a regional plan and funding mechanism for management.
- Safe Harbors and Partners: Work with willing landowners to promote habitat preservation (perhaps create an umbrella or programmatic SHA).
- Contaminants: Work with Trustee councils to pursue oil spill restoration funds where appropriate to pay for riparian habitat preservation.
- Refuges: If deemed appropriate, work towards initiating the process to establish a National Wildlife Refuge along the Santa Clara River (taking over management from TNC in 5 to 10 years).

Partners and stakeholders—The Nature Conservancy along with numerous other private and public partners are involved in Santa Clara River conservation projects and are already working toward protecting riparian habitat along the Santa Clara River, but additional funding is needed.

Estimated Costs—To be determined. Per-acre costs are variable. In-river lands with no economic uses start at about $750 per acre, while prime agricultural land goes for about $75,000+ per acre. Additional funding is needed but can be leveraged through partnerships.

5. Work with partners to initiate additional habitat restoration through nonnative plant removal and revegetation. This action affects measure 2 and addresses threats under Factor A.

Habitat restoration has started on TNC lands along the Santa Clara River, but additional funding is needed. In some areas, levee removal or set-backs are proposed. This will restore natural hydrology and fluvial processes, thus allowing natural regrowth and succession of riparian vegetation. Additionally, large swaths of the river that once supported native riparian vegetation are now overrun by *Arundo donax*, an invasive non-native plant species. Studies on Camp Pendleton have shown *Arundo* removal has improved riparian habitat for vireos.

Service's role—Coordinate with numerous partners and stakeholders along on the Santa Clara River to maximize coverage of protected areas; provide permitting and funding. Potential examples include:

- Section 6: Work with the State of California to apply for funding for habitat restoration, including control of nonnative species, along Santa Clara River.
- Section 7: Work with Action Agencies to include compatible conservation measures for habitat restoration.
- Section 10: Work towards establishing a regional plan and funding mechanism for management.
- Safe Harbors and Partners: Work with willing landowners to promote habitat restoration and nonnative plant control.

- Contaminants: Work with Trustee Councils to pursue oil spill restoration funds where appropriate to pay for habitat restoration and nonnative plant control.
- Refuges: If deemed appropriate, work towards initiating the process to establish a National Wildlife Refuge along the Santa Clara River (taking over management from TNC in 5 to 10 years).

Partners and stakeholders—The Nature Conservancy along with numerous other private and public partners are already involved in Santa Clara River conservation projects and are already working toward restoring riparian habitat along the Santa Clara River, but additional funding is needed.

Estimated Costs—Per-acre costs are variable and funding from multiple sources can be leveraged.

Additional Funding Analysis: Any additional funds can be put toward land purchase or management described in the "Actions" section above. Alternatively, additional funds could be used to fill the gap in our knowledge on the vireo's status in Mexico (Table 2).

Table 2. Potential actions if additional funding is available.

Measure	Action	Status	Duration/ Timeline	Approx. Cost	Cooperating Parties
Fill an existing data gap in large portion of the vireo's listed range—Mexico.	Identify and map areas of potential least Bell's vireo nesting habitat on the Baja California peninsula, determine if it is occupied by conducting surveys, and assess actual and potential threats to these areas.	Not Current	Duration: 2 years Timeline: 6 months planning and contracting; field season to start in early March.	TBD	USFWS migratory birds, USGS San Diego, Sonoran Joint Venture, non-governmental organizations in Mexico (e.g., Pronatura), U.S contractors with Baja experience.
	Identify and map areas of potential least Bell's vireo wintering habitat on the Baja California peninsula, determine if it is occupied by conducting surveys, and assess actual and potential threats to these areas.	Not started	Duration: 2 years. Timeline: 6 months planning and contracting; field season to start in October.	TBD	USFWS migratory birds, USGS San Diego, Sonoran Joint Venture, non-governmental organizations in Mexico (e.g., Pronatura), U.S contractors with Baja experience.

FIELD OFFICE APPROVAL:

ACTING Lead Field Supervisor, Fish and Wildlife Service

Approve _____ *Date* SEP 17 2009

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REGIONAL OFFICE CONCURRENCE:

Assistant Regional Director Ecological Services, Fish and Wildlife Service

Concur _____ *Date* 9/22/09