



REPORT TO COUNCIL

City of Sacramento

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915 I Street, Sacramento, CA 95814-2604
www.CityofSacramento.org

CONSENT
August 1, 2006

Honorable Mayor and
Members of the City Council

Title: Dry Creek Watershed Red Sesbania Management, CIP LV84

Location/Council District: Dry Creek (runs through Hansen Ranch Regional Park),
Council District 2

Recommendation: That the City Council adopt the attached **Resolution:** 1)
establishing a new Capital Improvement Program project, Dry Creek Watershed, CIP
LV84, to manage and eradicate red sesbania in the Dry Creek Watershed; and 2)
transferring \$25,000 of General Fund, Fund 101, from Dry Creek Parkway, CIP LV83,
to the Dry Creek Watershed, CIP LV84.

Contact: Janet Baker, Park Development Manager, 808-8234

Presenters: Not applicable

Department: Parks and Recreation

Division: Park Planning, Design & Development

Organization No: 4727

Description/Analysis

Issue: Red sesbania (*Sesbania punicea*) is a small invasive tree (Attachment 1,
page 4) which is highly prolific, spreading alarmingly quickly, and has been
reported to be able to choke an entire river system. Additionally, the plant is
toxic to wildlife. The Dry Creek watershed encompasses land in both
Sacramento and Placer Counties and passes through several city, water agency,
and flood control jurisdictions (Attachment 2, page 6) including the City of
Sacramento.

Sacramento Area Flood Control Agency (SAFCA) began the red sesbania
removal work with grant funds in 2004. However, the grant is ending and in
order to continue long term control and maintenance of red sesbania in the Dry
Creek watershed, a multi-agency team effort is necessary to manage it across
jurisdictional boundaries. The Placer County Resource Conservation District
(Placer RCD) will lead the effort through the establishment a cost share, multi-
agency fund aimed at controlling the weed and providing ongoing maintenance
of red sesbania along the Dry Creek Watershed. The City has provided staff
time to the project, but not funding.

By establishing a Capital Improvement Program (CIP) project, the City could contribute to this ongoing effort in the amount of \$5,000 per year for a term of five years.

Policy Considerations: As stated in City Council Resolution No. 2006-444 Section 10.3, City Council approval is required to establish CIP projects. In addition, Section 10.6 requires that "capital appropriations shall be used solely for repairs, maintenance, improvements, or acquisitions with a total cost of at least \$20,000."

The control of invasive weed species is also consistent with the City's Sustainability Agenda component of the City's Strategic Objectives and the General Plan Update.

Environmental Considerations: The Placer RCD will comply with all federal and local laws and regulatory requirements when working in the stream channel to remove red sesbania plants.

Rationale for Recommendation: The Placer RCD has proposed to manage a long-term, multi-agency partnership to maintain eradication efforts for red sesbania in the Dry Creek Watershed and prevent any re-infestation of this weed in the creek. Due to the invasive nature and toxicity of the plant, it is recommended that the City participate in the maintenance and prevention effort to protect the City's interests in the Dry Creek Watershed.

Financial Considerations: The total project costs are estimated to be \$298,250 of which the City would contribute \$25,000 of the total project costs at a rate of \$5,000 a year for five years to the Placer RCD. Staff recommends transferring \$25,000 of General Fund, Fund 101, from Dry Creek Parkway, CIP LV83, to the Dry Creek Watershed, CIP LV84

Emerging Small Business Development (ESBD): Not applicable.

Respectfully Submitted by: 
ROBERT G. OVERSTREET II
Director of Parks and Recreation

Recommendation Approved:


RAY KERRIDGE
City Manager

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BACKGROUND INFORMATION

From 2004 to 2006, Sacramento Area Flood Control Agency (SAFCA) conducted an invasive plant control program for red sesbania (*Sesbania punicea*) in the Dry Creek Watershed. The California Department of Water Resources Flood Protection Corridor Program grant funded this project through the summer 2006. (This is a \$372,000 component of a \$1.4 million grant project.) SAFCA has made substantial progress towards controlling red sesbania, having achieved nearly 100% removal of all mature plants and having completed two years of treatment of seedlings and resprouts as of summer 2006. However, this plant has an established seed bank in the Dry Creek watershed that will necessitate repeated treatments of new seedlings for several additional years following completion of the grant-funded work to achieve full eradication of the species.

Given the degree of threat posed by this species, it is in the best interest of all parties with management responsibility in the Dry Creek Watershed to move quickly to eradicate the plant completely. This small riparian tree spreads rapidly, and has the ability to flower and set viable seed in less than one year's time. The seeds float in water and can readily be transported downstream by current and wave action. Unlike other species, red sesbania can develop a taproot and leaves while it is floating in water, allowing it to establish immediately as soon as it makes contact with moist soils along shorelines. Red sesbania forms dense, single-species strands along rivers, creeks, streams, and ponds.

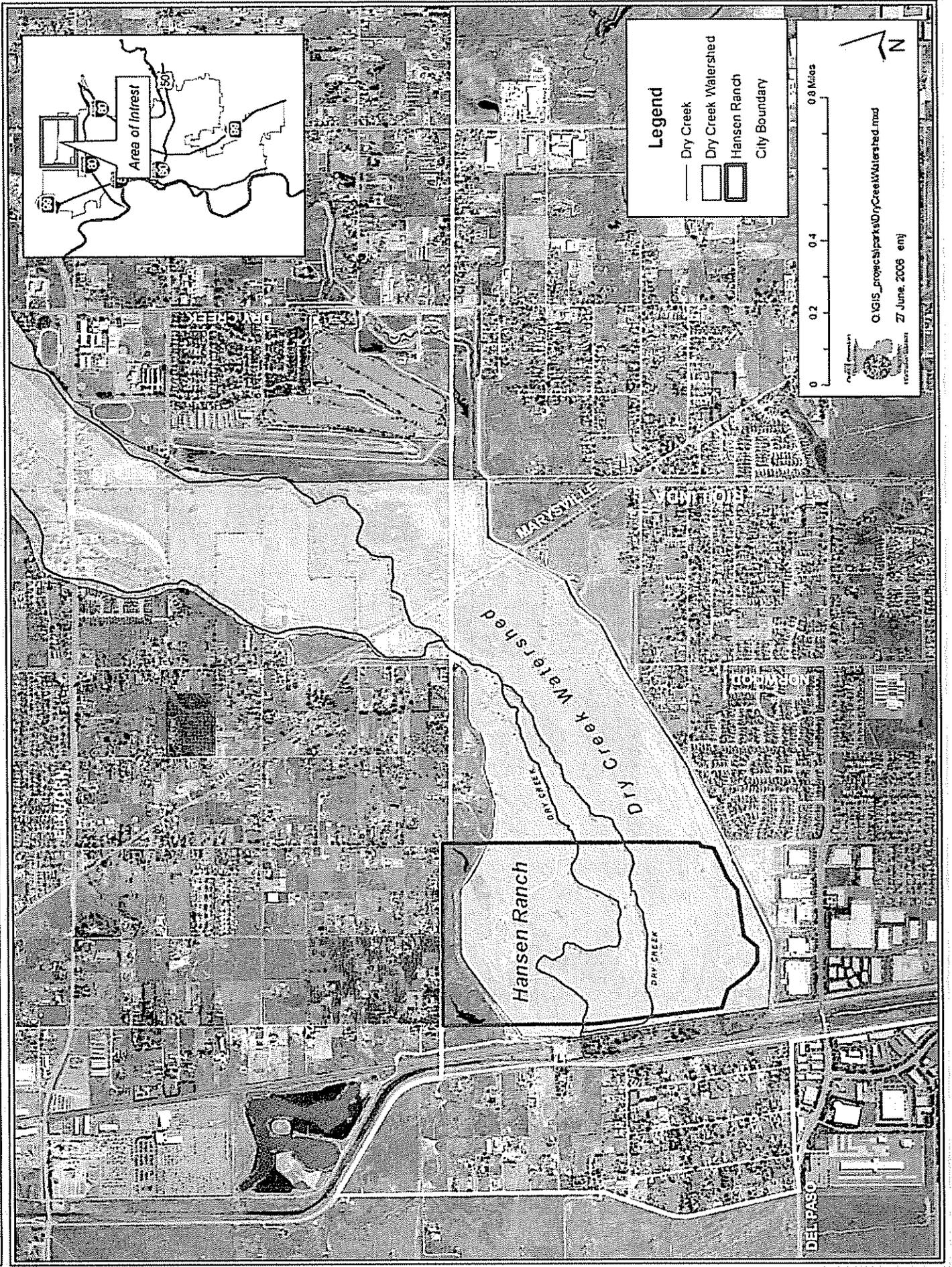
Its rate of spread is alarmingly fast, and (as reported from observations of other infestations worldwide), it can completely choke an entire river system. In addition, because it grows immediately adjacent to the water's edge, it substantially increases vegetation biomass along the water's edge, increasing stream roughness and decreasing flow rates and flood capacity. It also restricts recreational access to the water's edge, affecting fishermen, kayakers, and others. The plant is toxic to wildlife (and presumably humans). It is known to displace native riparian species, further degrading the quality and extent of this fragile habitat type locally and regionally.

Red sesbania has a long-lived seed that can be viable for up to 20 years. Especially in the lower portions of the Dry Creek watershed (for example, at Gibson Ranch and at Hansen Ranch in Sacramento County), there are several well-established seed banks (in areas that used to support dense stands of mature sesbania) that may continue to "flush" (i.e. seeds in the ground are likely to sprout in the future) after the red sesbania control grant project is complete. Also, there may be "backyard plants" on private lands, and plants in nearby off-stream ponds, irrigation channels, and tributary waterways that could be source populations from which the species could re-introduce itself into previously treated areas in the future. It is therefore essential to continue red sesbania maintenance on the Dry Creek watershed following completion of the initial grant-funded work. Without ongoing maintenance, the area is likely to be re-infested with red sesbania and reverting over time to a similar level of infestation as when the

control program was initiated.

The long term management and maintenance program will be moderately intensive for the first 3 years, and the efforts required during this period are anticipated to be similar to those conducted during the later stages of the grant funded program (i.e. based on 2006 actual costs). However, program efforts are projected to drop to a minimal level for years 4 through 10, and may be discontinued near the end of this period if the species is found to be completely eradicated. If complete eradication has not been achieved by Year 10 (approximately in 2016), it is likely that the program may need to continue at a very low level of effort.

Actions	Annual Costs		Subtotal Program costs for 10 years
	Years 1 to 3	Years 4 to 10	
Monitoring	\$ 2,500.00	\$ 1,500.00	\$ 18,000.00
Weed Control	\$ 29,000.00	\$ 17,000.00	\$ 206,000.00
Outreach	\$ 1,000.00	\$ 1,000.00	\$ 10,000.00
Subtotal	\$ 32,500.00	\$ 19,500.00	\$ 234,000.00
Administration (15%)	\$ 5,100.00	\$ 3,100.00	\$ 37,000.00
Inflation 3%/year	\$ 1,000.00	\$ 650.00	\$ 7,550.00
Contingency (7% per year)	\$ 2,600.00	\$ 1,700.00	\$ 19,700.00
Annual Program Cost	\$ 41,200.00	\$ 24,950.00	
TOTAL ESTIMATED COST OF PROGRAM (10 Years)			\$ 298,250.00



RESOLUTION NO. 2006-XXX

Adopted by the Sacramento City Council
August 1, 2006

DRY CREEK WATERSHED RED SESBANIA MANAGEMENT, CIP LV84

BACKGROUND

- A. Red sesbania (*Sesbania punicea*) is a small invasive tree which is highly prolific, spreading alarmingly quickly, and has been reported to completely choke an entire river system.
- B. Sacramento Area Flood Control Agency (SAFCA) began the grant-funded red sesbania removal work. However, for the continued, long term management and maintenance of red sesbania in the Dry Creek watershed, a multi-agency team is necessary to control it across jurisdictional boundaries. The Placer County Resource Conservation District would lead the effort through the establishment a cost share, multi-agency fund aimed at controlling the weed and providing ongoing maintenance of red sesbania.
- C. By establishing a Capital Improvement Program project, the City could contribute to this ongoing effort. As stated in City Council Resolution No. 2006-444 Section 10.3, City Council approval is required to establish CIP projects. In addition, Section 10.6 requires that "capital appropriations shall be used solely for repairs, maintenance, improvements, or acquisitions with a total cost of at least \$20,000."

BASED ON THE FACTS SET FORTH IN THE BACKGROUND, THE CITY COUNCIL RESOLVES AS FOLLOWS:

- Section 1. A new Capital Improvement Program project, Dry Creek Watershed, CIP LV84, is established to manage and eradicate red sesbania in the Dry Creek Watershed.
- Section 2. \$25,000 of General Fund, Fund 101, from Dry Creek Parkway, CIP LV83, is transferred to the Dry Creek Watershed, CIP LV84.