

4.5 PSP Cover Sheet (Attach to the front of each proposal)

Proposal Title: PHASE I FEASIBILITY STUDY of the Tracy Wetlands Stormwater Reuse Habitat
 Applicant Name: City of Tracy – Jack Bond, P.E., Department of Public Works
 Mailing Address: 520 Tracy Boulevard, Tracy, CA 95376
 Telephone: (209)831-4442
 Fax: (209)831-4430
 Email: _____

Amount of funding requested: \$ 149,580 for 1 years

Indicate the Topic for which you are applying (check only one box).

- | | |
|-----------------------------------------------------------------|---------------------------------------------------|
| <input type="checkbox"/> Fish Passage/Fish Screens | <input type="checkbox"/> Introduced Species |
| <input type="checkbox"/> Habitat Restoration | <input type="checkbox"/> Fish Management/Hatchery |
| <input checked="" type="checkbox"/> Local Watershed Stewardship | <input type="checkbox"/> Environmental Education |
| <input type="checkbox"/> Water Quality | |

Does the proposal address a specified Focused Action? yes X no

What county or counties is the project located in? San Joaquin

Indicate the geographic area of your proposal (check only one box):

- | | |
|-----------------------------------------------------|-----------------------------------------------------------------|
| <input type="checkbox"/> Sacramento River Mainstem | <input type="checkbox"/> East Side Trib: _____ |
| <input type="checkbox"/> Sacramento Trib: _____ | <input type="checkbox"/> Suisun Marsh and Bay |
| <input type="checkbox"/> San Joaquin River Mainstem | <input type="checkbox"/> North Bay/South Bay: _____ |
| <input type="checkbox"/> San Joaquin Trib: _____ | <input type="checkbox"/> Landscape (entire Bay-Delta watershed) |
| <input checked="" type="checkbox"/> Delta: _____ | <input type="checkbox"/> Other: _____ |

Indicate the primary species which the proposal addresses (check all that apply):

- | | |
|----------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| <input type="checkbox"/> San Joaquin and East-side Delta tributaries fall-run chinook salmon | <input type="checkbox"/> Spring-run chinook salmon |
| <input type="checkbox"/> Winter-run chinook salmon | <input type="checkbox"/> Fall-run chinook salmon |
| <input type="checkbox"/> Late-fall run chinook salmon | <input checked="" type="checkbox"/> Longfin smelt |
| <input checked="" type="checkbox"/> Delta smelt | <input checked="" type="checkbox"/> Steelhead trout |
| <input checked="" type="checkbox"/> Splittail | <input type="checkbox"/> Striped bass |
| <input type="checkbox"/> Green sturgeon | <input type="checkbox"/> All chinook species |
| <input checked="" type="checkbox"/> Migratory birds | <input checked="" type="checkbox"/> All anadromous salmonids |
| <input type="checkbox"/> Other: _____ | |

Specify the ERP strategic objective and target (s) that the project addresses. Include page numbers from January 1999 version of ERP Volume I and II:
Addressed in Section 4.3 of the Proposal

Indicate the type of applicant (check only one box):

- | | |
|---------------------------------------------------------------|-----------------------------------------|
| <input type="checkbox"/> State agency | <input type="checkbox"/> Federal agency |
| <input type="checkbox"/> Public/Non-profit joint venture | <input type="checkbox"/> Non-profit |
| <input checked="" type="checkbox"/> Local government/district | <input type="checkbox"/> Private party |
| <input type="checkbox"/> University | <input type="checkbox"/> Other: _____ |

Indicate the type of project (check only one box):

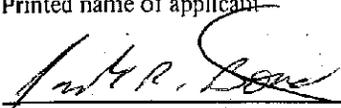
- | | |
|----------------------------------------------|-----------------------------------------|
| <input checked="" type="checkbox"/> Planning | <input type="checkbox"/> Implementation |
| <input type="checkbox"/> Monitoring | <input type="checkbox"/> Education |
| <input type="checkbox"/> Research | |

By signing below, the applicant declares the following:

- 1.) The truthfulness of all representations in their proposal;
- 2.) The individual signing the form is entitled to submit the application on behalf of the applicant (if the applicant is an entity or organization); and
- 3.) The person submitting the application has read and understood the conflict of interest and confidentiality discussion in the PSP (Section 2.4) and waives any and all rights to privacy and confidentiality of the proposal on behalf of the applicant, to the extent as provided in the Section.

Jack Bond, P.E.

Printed name of applicant



Signature of applicant

4.6 Proposal Completion Checklist

Once the applicant has prepared a proposal, CALFED staff suggest reviewing the following checklist to ensure that the proposal meets the requirements of this solicitation package and can be clearly understood by the technical review panels.

- Has the standard cover sheet (Section 4.5) been completed and attached to the front of the proposal? Is it signed?
- Have the page limitations for each section of the proposal been adhered to?
- Have the Minimum Requirements (Section 4.1) been addressed?
- Has local involvement been described and a copy of notification of the county included?
- Did you fill out the contract forms (Appendix D and E)?
- Is the hypothesis/question to be addressed by the proposal described clearly?
- Are the objectives of the proposal described clearly?
- Does the proposal show a clear link to the CALFED priority species and habitats?
- Does the proposal describe how the project meets ERP objectives and Strategic Plan goals?
- Does the proposal describe linkages to previously funded projects or previous phases?
- Does the proposal clearly lay out tasks, products, and timelines?
- Is the monitoring section clear and complete and address the hypothesis for the project?
- Does the proposal contain a budget for each task?

Project Title:

**Phase I Feasibility Study of the Tracy Wetlands
Stormwater Reuse Habitat**

Primary Contact:

**Jack Bond, P.E.
City of Tracy, Public Works
520 Tracy Blvd.
Tracy, California 95376
Phone: (209) 831-4442**

Participants and Collaborators:

Technical Support to the City of Tracy by

**DAVID EVANS AND ASSOCIATES, INC.
2880 Tracy Boulevard, Suite Four
Tracy, CA 95376
Phone: (209) 832-8299
Fax: (209) 832-8374**

Type of Organization: Local Government/District

Tax Status: Tax Exempt Municipal Non-Profit

Tax Identification Number: 94-6000442

April 15, 1999

Phase I Tracy Wetlands Stormwater Reuse Habitat
04/15/99
Page 1

1.0 EXECUTIVE SUMMARY

The impact of urban runoff on water quality has become a concern for several reasons. Given the increasingly strict requirements of the CWA, it is imperative that municipalities, industry, and agriculture improve wastewater quality prior to discharge to surface streams, rivers and area watersheds. Unfortunately, the few available technologies for wastewater treatment (e.g., chemical or electrochemical treatments) are often not cost effective. Furthermore, in some instances the sludges produced by treatment technologies may have to be managed as hazardous waste.

A sustainable, low-cost technology for wastewater treatment is the use of highly engineered treatment wetlands. The capacity of many wetlands to reduce the levels of nutrients, metals and other pollutants in water passing through them has been well documented. Realizing this fact, treatment wetlands are designed and constructed to treat a variety of wastewaters.

The Department of Public Works of the City of Tracy, proposes that a treatment wetland system be constructed to cleanup urban stormwater and non-point source runoff prior to discharge into the Old River segment of the Lower San Joaquin River. The city proposes the creation of a diverse multi-function, multi-value treatment wetland system with accompanying wildlife habitat located on approximately 200 acres of farmland northwest of the city near Wicklund Cut, which serves as a discharge point for urban runoff and intake point for irrigation waters. The *Tracy Wetlands Stormwater Reuse Habitat* (Tracy Wetlands) will advance Central Valley water quality enhancement goals and improve local watershed stewardship as well as provide significant wildlife habitat restoration for priority species within the Central Valley. Water quality improvement in the South Delta Region will significantly enhance the recovery of many of the priority endangered fish species.

With the establishment of the Tracy Wetlands project at Wicklund Cut, a potential adverse impact would be the loss of farmland and a possibly increased mosquito abatement costs. But these potential adverse impacts are considered minor compared to and overall benefit of the wetland project. The City of Tracy proposes that this project be developed in a four-phased approach:

- Phase I. Treatment Wetland Alternative Feasibility Study
- Phase II. Wetland Design Criteria Development
- Phase III. Wetland Pilot Study and Water Quality Monitoring Program
- Phase IV. Final Wetland Design and Construction

The City of Tracy is an incorporated city with a population of approximately 47,000 that is located adjacent to the South Delta. The City of Tracy provides full municipal services to its residents, which include stormwater management and wastewater treatment, both of which have direct and indirect impacts to water quality and sensitive species associated with the Delta. The City of Tracy has updated its Storm Drainage Master Plan that calls for terminal discharges into Old River. To assist the City of Tracy in devising stormwater

treatment alternatives, David Evans and Associates, Inc. (DEA) has been included in the collaborative team. DEA is a multidisciplinary consulting firm ranked 56th in the U.S. among the Engineering News Record top design firms. Heading DEA's consulting effort for the City of Tracy is Dr. C. Mel Lytle, who is a noted wetland ecologist with constructed wetland experience throughout the U.S.

The City of Tracy has been working with the Souza family regarding the acquisition of approximately 200 acres of land to be developed into the wetland project. A letter confirming the Souza family's intent is included as an attachment to this proposal. The city has also made contact with Tracy Unified School District and Lammersville School District regarding the potential benefits to be derived from this project and both are supportive of the concept. Lastly, a letter has been sent to San Joaquin County Public Works notifying them of this solicitation response.

The scope of this proposal and current funding request will focus on the Phase I Treatment Wetland Feasibility Study.

Costs: Phase I Feasibility Study	\$149,580
City of Tracy property acquisition	\$900,000 (estimated)

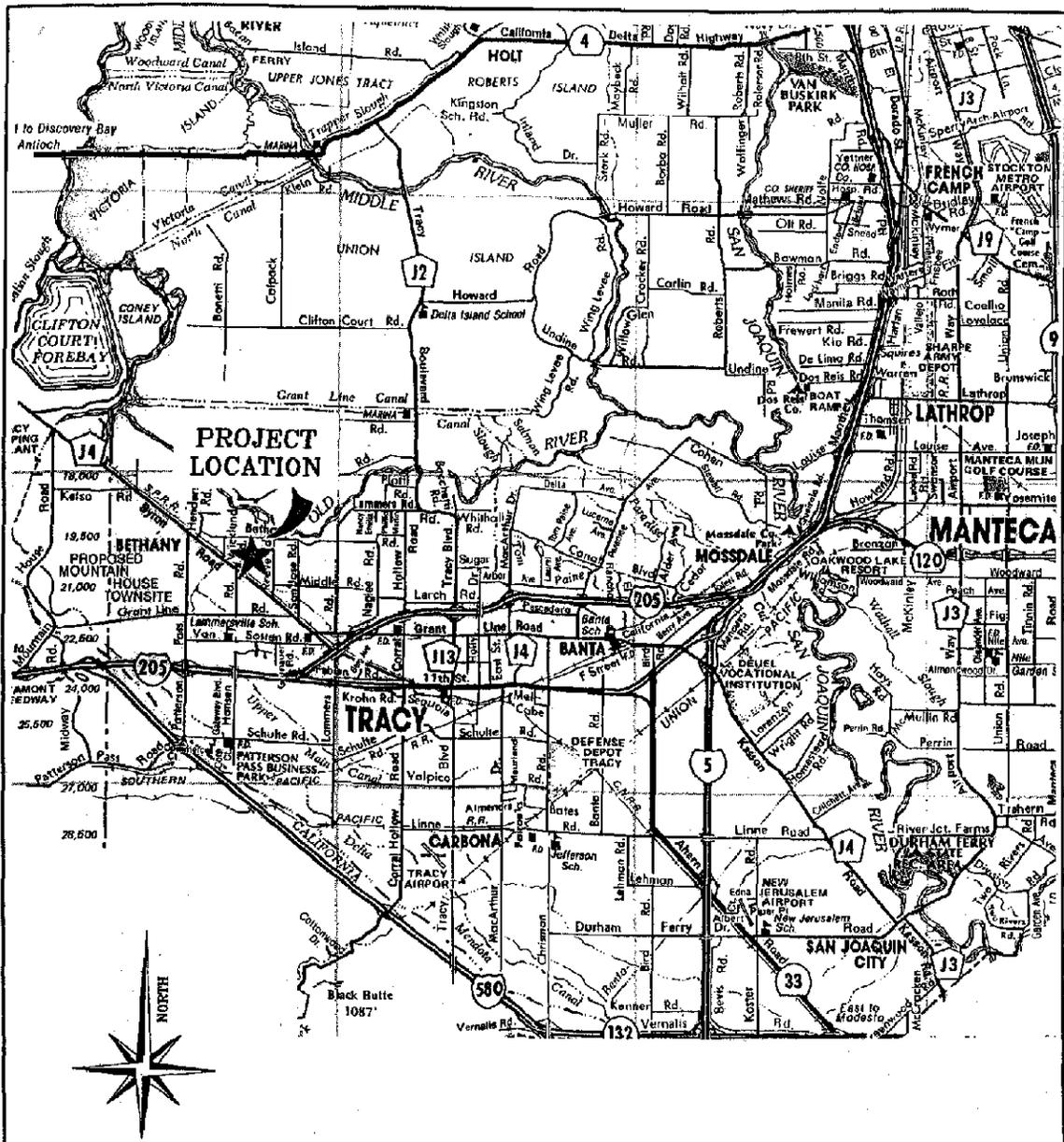
2.0 PROJECT DESCRIPTION

Constructed wetlands for the treatment of urban and agricultural runoff has proven to be highly effective for stormwater treatment and restored habitat establishment for wildlife. The 154-acre Arcata Marsh and Wildlife Sanctuary in Humboldt County is a constructed treatment wetland that has successfully treated sewage effluent from the City of Arcata, CA for over 20 years. The marsh holds appeal to over 100,000 tourists that visit the wetland each year to observe the thousands of migrating birds and other wildlife.

The Department of Public Works of the City of Tracy, proposes that a treatment wetland system be constructed to cleanup urban stormwater and non-point source runoff prior to discharge into the Old River segment of the Lower San Joaquin River drainage. **(See Exhibit A, Vicinity Map)** The city proposes the creation of a diverse multi-function, multi-value treatment wetland system with accompanying wildlife habitat located on approximately 200 acres of farmland northwest of the city near Wicklund Cut, which serves as a discharge point for urban runoff and intake point for agricultural irrigation. **(See Exhibit B, Location Map). Exhibit C** indicates Tidal Flow Rates influencing the project.

The Tracy Wetlands Stormwater Reuse Habitat (Tracy Wetlands) will advance Central Valley water quality enhancement goals and improve local watershed stewardship as well as provide significant wildlife habitat restoration for priority species within the Central Valley. Water quality improvement in the South Delta Region will significantly enhance the recovery of many of the listed endangered fish species including, Delta and Longfin smelt, Splittail, Chinook salmon and Steelhead trout.

The wetland will have a habitat mosaic composed of open-water wetlands, seasonal wetlands, mudflats, isolated islands and riparian uplands. This habitat



EXHIBIT

A

VICINITY MAP

DEM

DAVID EVANS AND ASSOCIATES, Inc.

INC.

2880 TRACY BOULEVARD
SUITE FOUR
TRACY, CALIFORNIA 95376
TEL: (209) 832-8299
FAX: (209) 832-8374

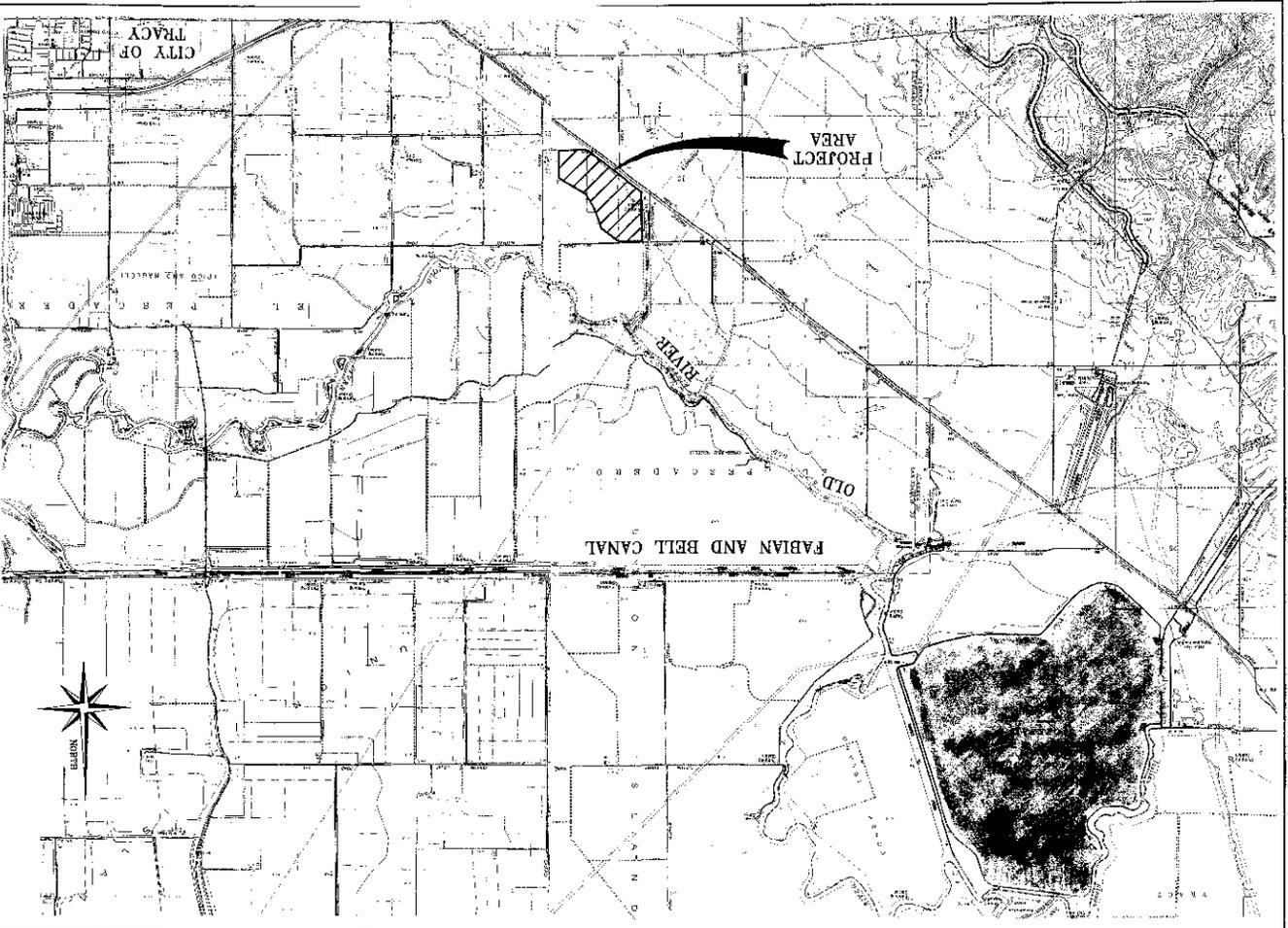
CITY OF TRACY

APPROVED BY:

CITY ENGINEER

DATE

BY:



B
EXHIBIT

LOCATION MAP

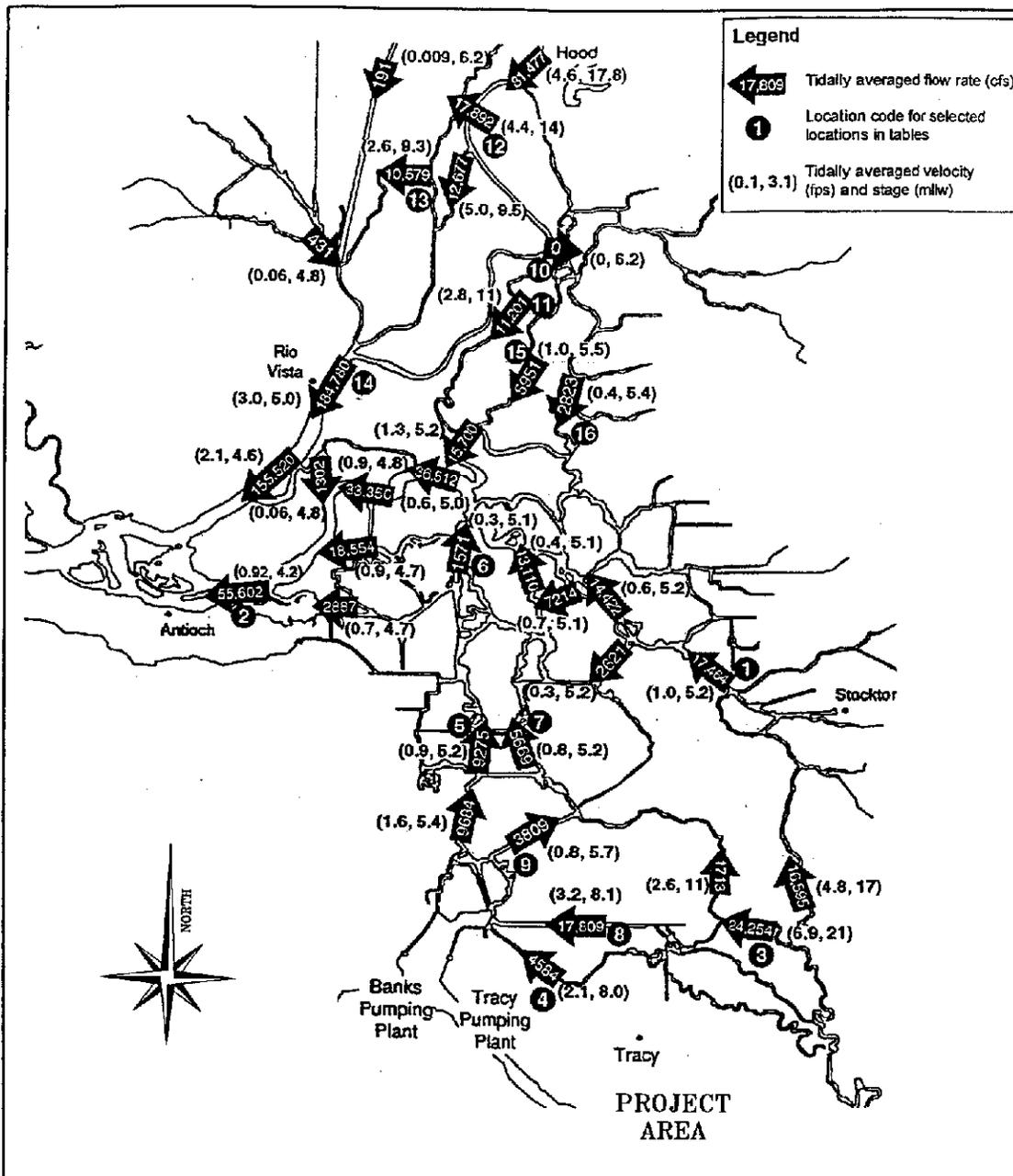
DEAN
DAVID EVANS AND
ASSOCIATES, Inc.
2880 TRACY BOULEVARD
SUITE FOUR
TRACY, CALIFORNIA 95376
TEL: (209) 832-8299
FAX: (209) 837-8374

CITY OF TRACY

APPROVED BY: _____
DATE: _____
CITY ENGINEER: _____
CITY CLERK: _____

I - 0 1 7 2 9 4

I-017294



<p>EXHIBIT C</p>	<p>DELTA TIDAL FLOW RATES</p>	<p>DAVID EVANS AND ASSOCIATES, Inc. 2880 TRACY BOULEVARD, SUITE FOUR TRACY, CALIFORNIA 95376 TEL: (209) 832-8299 FAX: (209) 832-8374</p>	<p>CITY OF TRACY</p> <p>APPROVED BY: _____ CITY ENGINEER: _____ R.C.L. DATE: _____</p>
-----------------------------	--------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------

diversity will support many resident and migratory wildlife species including those that are threatened or endangered. The highest priority will be to provide abundant habitat for listed species including, the Aleutian Canada goose, California red-legged frog, Giant garter snake, Greater sandhill crane, Bank swallow, Rail species, Western yellow-billed cuckoo, Valley elderberry longhorn beetle, Riparian brush rabbit and Riparian woodrat. The Tracy Wetlands will be designed to meet watershed stewardship goals including community and school district involvement in project planning design and monitoring. The project proposes an interpretive center, viewing overlooks, trails and boardwalks, and a picnic area.

The wetlands will also serve as an "outdoor laboratory" for local school districts to increase the awareness of watershed stewardship, water quality enhancement, wildlife habitat restoration and provide locally developed educational opportunities for students from throughout the San Joaquin Valley. The project will also act as an important recreational attraction for the general public, both local and internationally.

To plan and design the treatment wetland/wildlife habitat system, a multi-phased development approach is proposed:

- **Phase I. Treatment Wetland Alternative Feasibility Study.** A feasibility study will be conducted to determine if a treatment wetland alternative will meet water quality enhancement and watershed management goals for the City of Tracy. (Phases II, III, and IV are subsequent phases of the overall project and are not proposed within this solicitation request.)
- **Phase II. Wetland Design Criteria Development.** Wetland design criteria will be established from the Phase I Feasibility Study to address not only stormwater treatment parameters for the wetland system but also habitat restoration requirements.
- **Phase III. Wetland Pilot Study and Water Quality Monitoring Program.** A pilot study will be constructed and monitored over two-years to verify the proposed treatment wetland design parameters and water quality enhancement criteria.
- **Phase IV. Final Wetland Design and Construction.** The final wetland system design will be implemented where the full-scale wetland/habitat system will be constructed.

2.1 Phase I. Wetland Feasibility Study Project Tasks

The major objective of Phase I will be to study the feasibility of creating a freshwater constructed wetland to treat urban stormwater and non-point source runoff from the City of Tracy prior to discharge into Old River portion of the Lower San Joaquin River drainage. In order to achieve the Phase I objective, the project will be divided into several project tasks including feasibility evaluations

and on-site studies. Figure 1 outlines the general approach we will take in the development of this wetland project.

Wetland Alternative Evaluations and On-site Studies

Preliminary Evaluations

Task 1. Determine the proposed and existing stormwater drainage infrastructure.

- Review existing City reports and plans to determine existing and future conditions impacting the project and study area. **(see Exhibits D & E)**
- Summarize in text and exhibits for the feasibility study report.

Task 2. Define the urban stormwater management goals.

- Review the city's Urban Management Plan, Master Plans and applicable policies to determine stormwater management program goals.
- Summarize city goals in report and review consistency with CALFED program goals and objectives.

Task 3. Evaluate land use/ownership and environmental permitting requirements.

- Obtain surrounding ownership information to establish a notice area mailing list for impacted properties. Review existing/proposed land-uses, and summarize in report. **(see Exhibit F)**
- Contact resource agencies to determine future permitting requirements (through construction) and summarize in report.

Task 4. Evaluate treatment wetland design options.

- Determine which wetland design options will meet the city's wastewater enhancement goals. The constructed wetland configurations could include single units, parallel units, series units and combinations of wetland units. **(see Exhibit G)**
- Develop a conceptual plan of the treatment wetland area including proposed options. **(see Exhibit H)**

Task 5. Evaluate wildlife habitat development options.

- Determine what habitat types will best suit the listed species.
- Develop a habitat mosaic for the wetland project including, size and distribution of the various habitat components. **(see Exhibit I)**
- Include selected habitat mosaic in the conceptual plan.

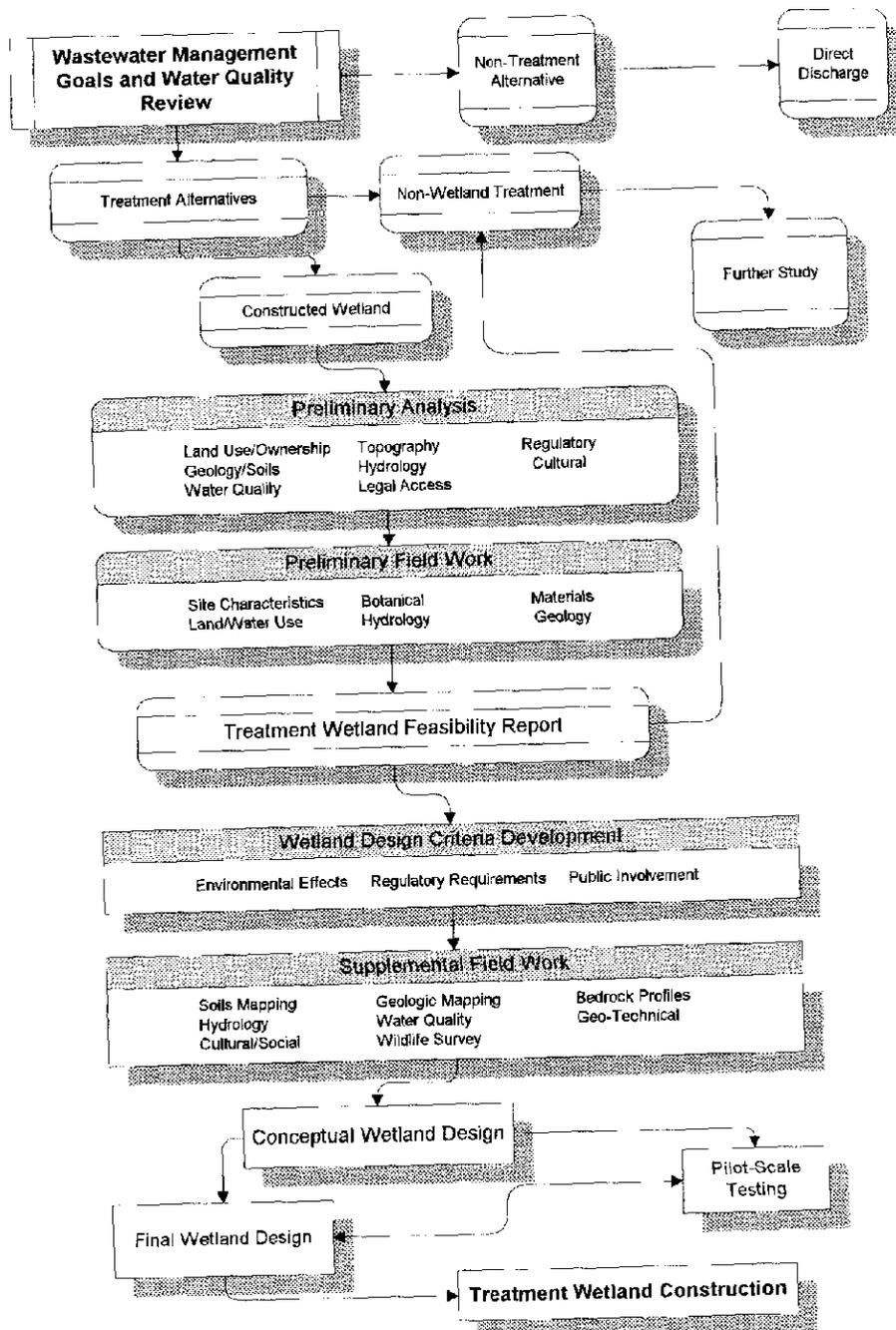
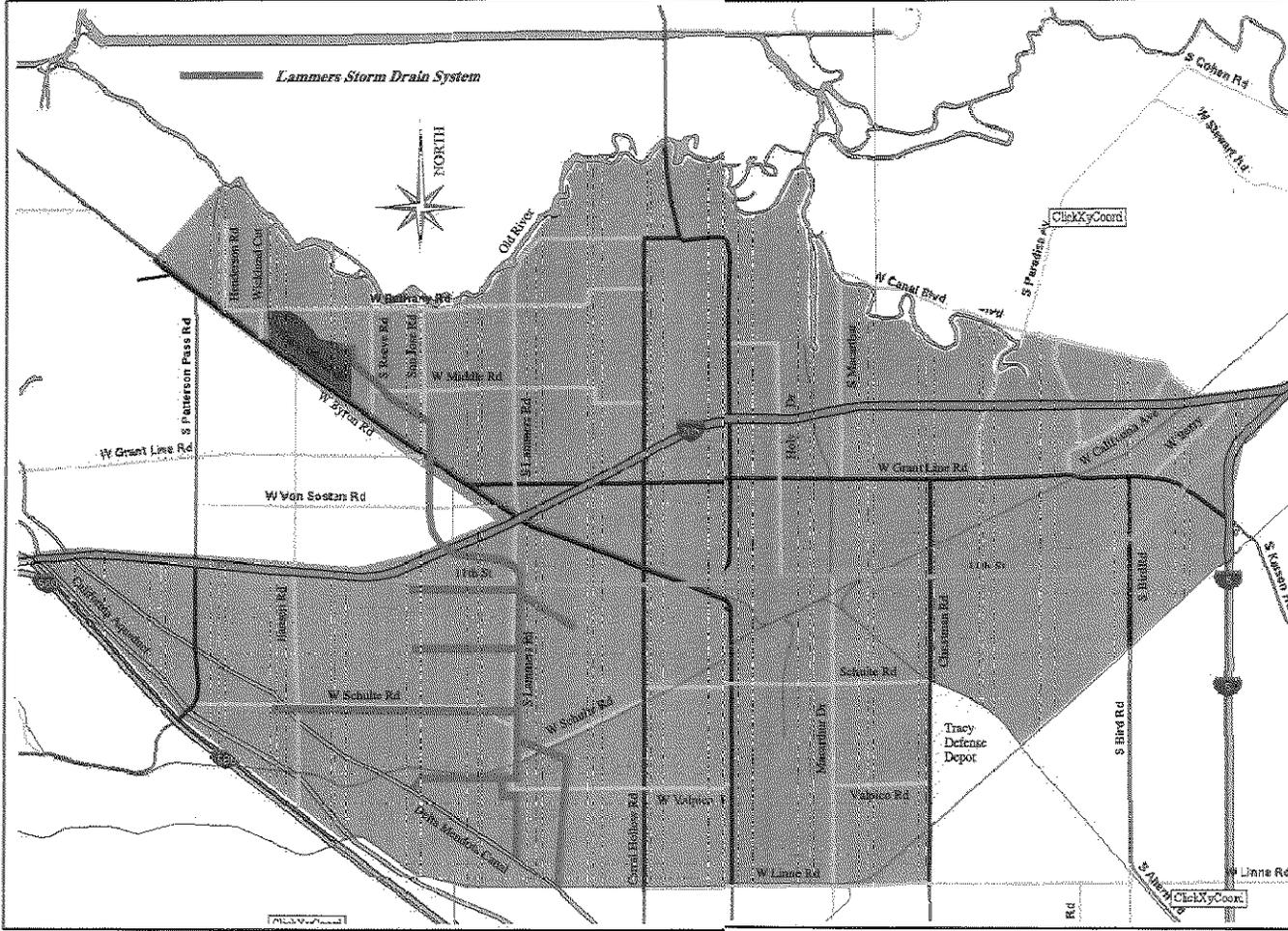


Figure 1. A Generalized Methodology for the Development of a Constructed Wetland Treatment System.

1-017299



CITY OF TRACY

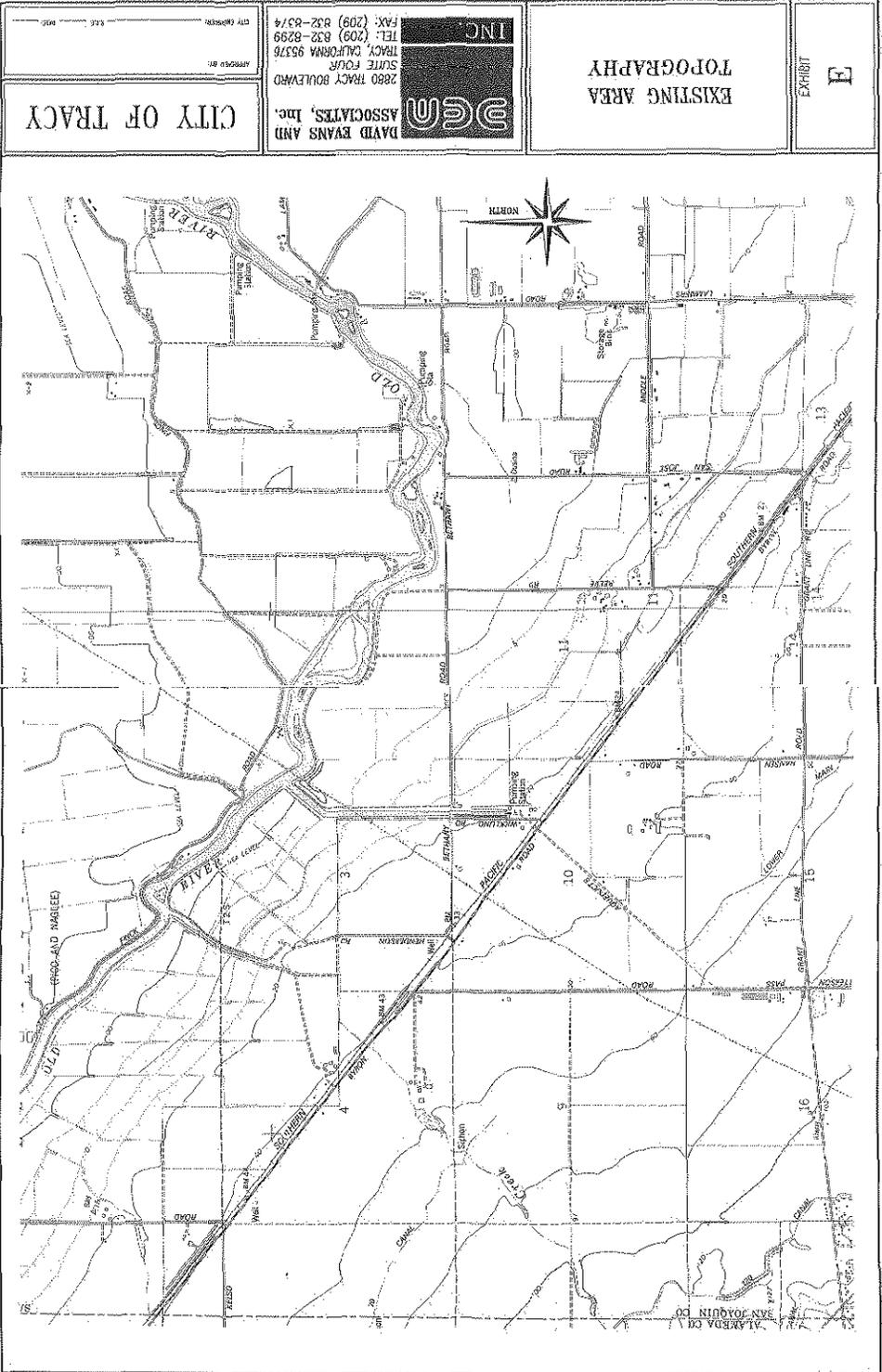
DAVID EVANS AND ASSOCIATES, Inc.
 2460 TRACY BOULEVARD
 SUITE 1000
 TRACY, CALIFORNIA 95376
 TEL: (209) 634-8299
 FAX: (209) 634-8374



CITY OF TRACY URBAN RUN-OFF AREA MAP

EXHIBIT
D

1-017299



CITY OF TRACY
 APPROVED BY: _____
 CITY ENGINEER: _____

DAVID EVANS AND ASSOCIATES, Inc.
 2880 TRACY BOULEVARD
 SUITE FOUR
 TRACY, CALIFORNIA 95376
 TEL: (209) 832-8299
 FAX: (209) 832-8374

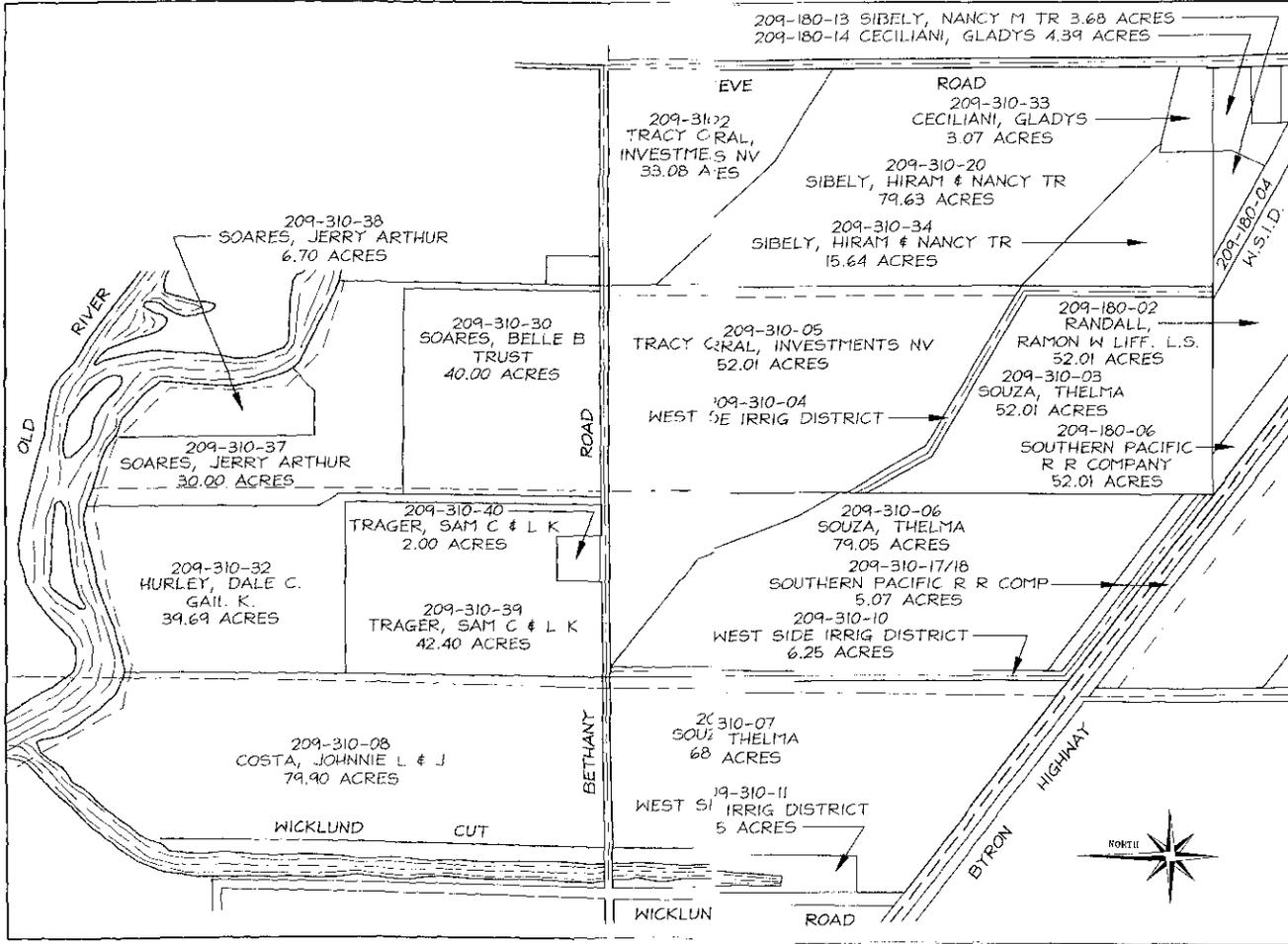
DEEM INC.
 EXISTING AREA
 TOPOGRAPHY

EXHIBIT
E

1 - 0 1 7 3 0 0

I-017300

1-017301



CITY OF TRACY

APPROVED BY: _____ DATE: _____

BY: _____

DAVID EVANS AND ASSOCIATES, Inc.

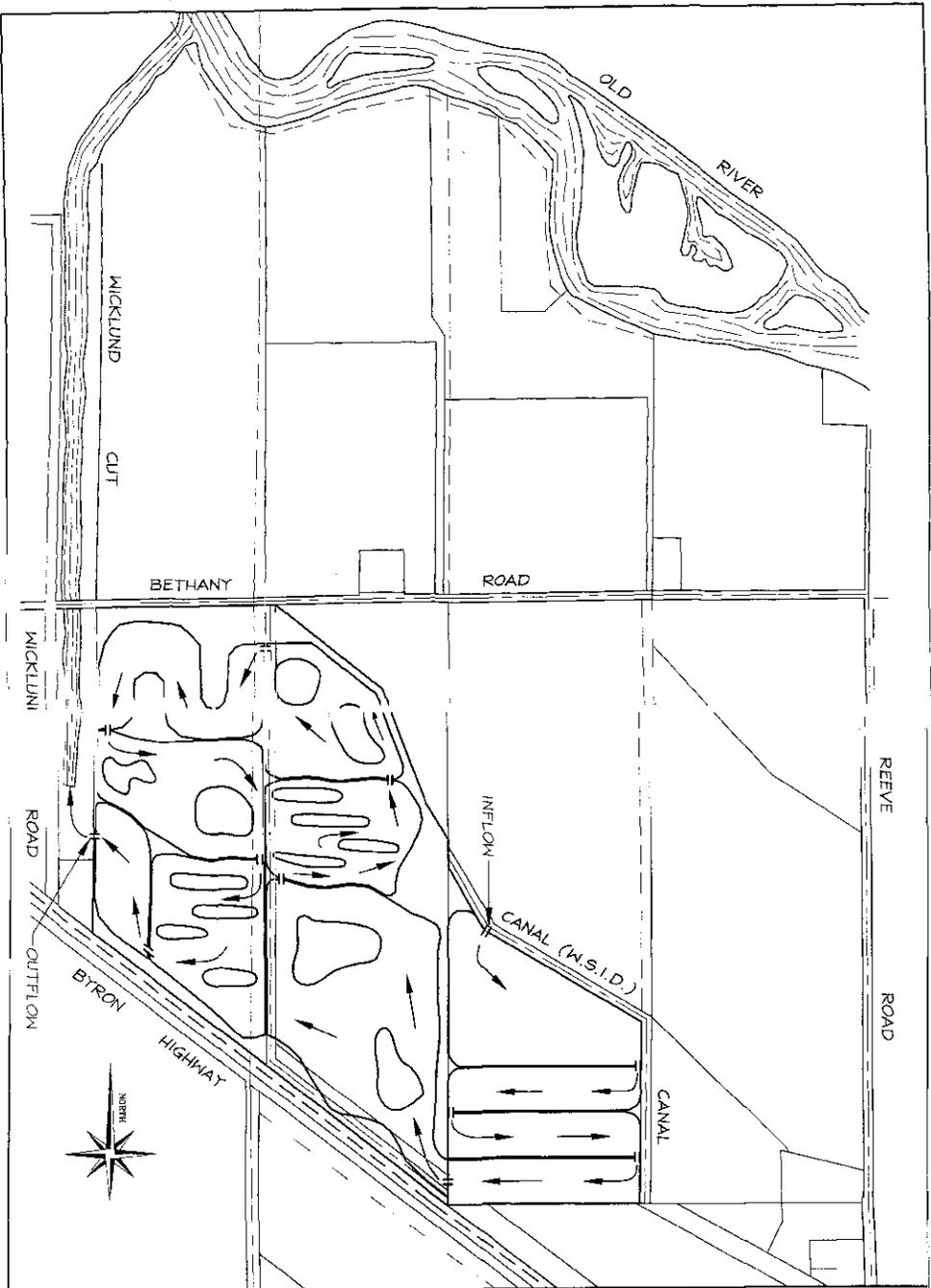
2880 TRACY BOULEVARD
SUITE FOUR
TRACY, CALIFORNIA 95376
TEL: (209) 832-8299
FAX: (209) 832-8374

PROPERTY OWNERSHIP MAP

EXHIBIT

F

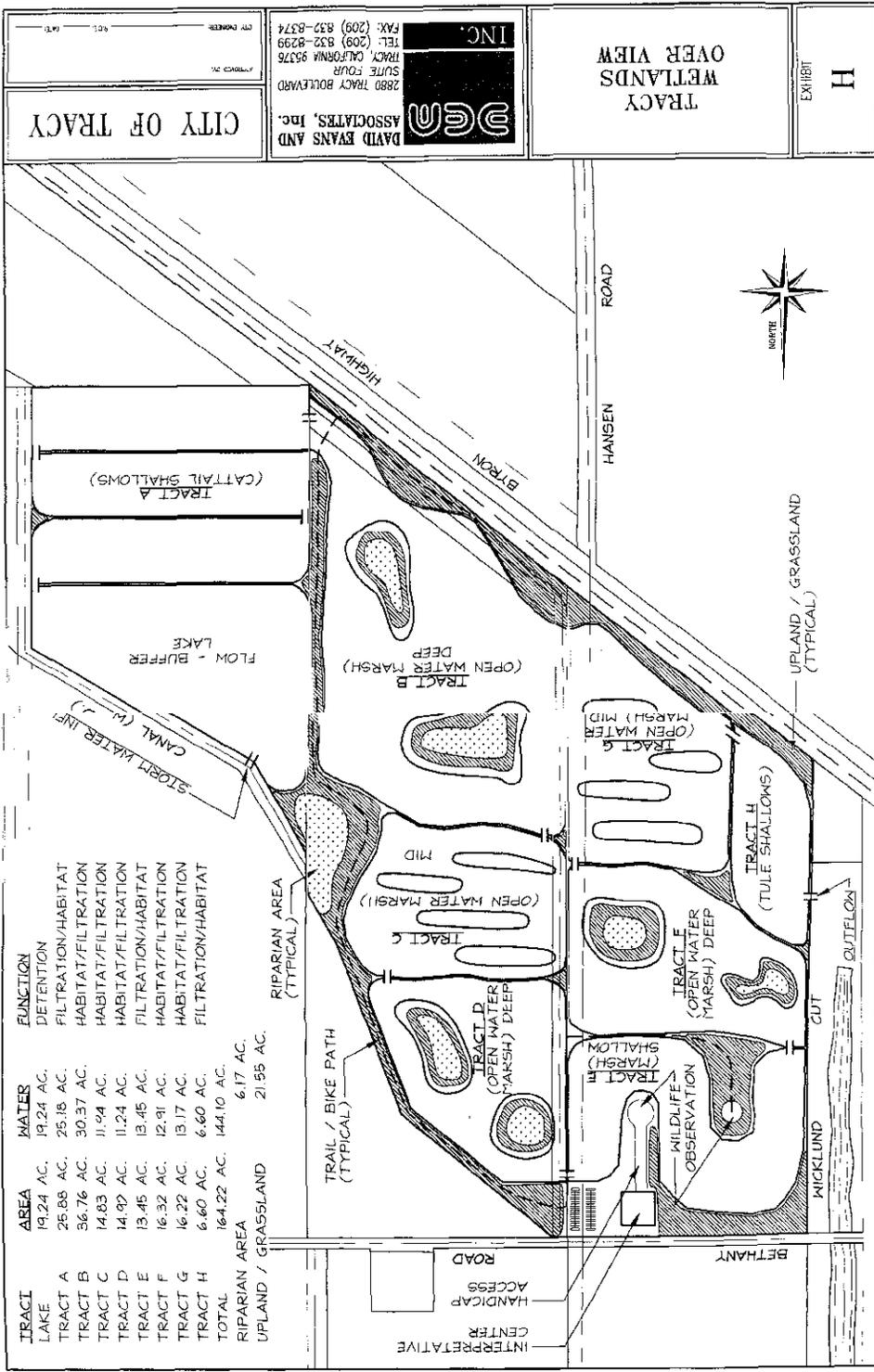
1-017301



1-017302

1-017302

G EXHIBIT	SCHEMATIC WETLANDS PLAN VIEW	 DAVID EVANS AND ASSOCIATES, Inc. 2880 TRACY BOULEVARD SUITE FOUR TRACY, CALIFORNIA 95376 TEL: (209) 832-8299 FAX: (209) 832-8374	CITY OF TRACY
			APPROVED BY _____ CITY ENGINEER: _____ DATE: _____



TRACT	AREA	WATER	FUNCTION
LAKE	19.24 AC.	19.24 AC.	DETENTION
TRACT A	25.88 AC.	25.18 AC.	FILTRATION/HABITAT
TRACT B	36.76 AC.	30.37 AC.	HABITAT/FILTRATION
TRACT C	14.83 AC.	11.94 AC.	HABITAT/FILTRATION
TRACT D	14.92 AC.	11.24 AC.	HABITAT/FILTRATION
TRACT E	13.45 AC.	13.45 AC.	FILTRATION/HABITAT
TRACT F	16.32 AC.	12.91 AC.	HABITAT/FILTRATION
TRACT G	16.22 AC.	13.17 AC.	HABITAT/FILTRATION
TRACT H	6.60 AC.	6.60 AC.	FILTRATION/HABITAT
TOTAL	164.22 AC.	144.10 AC.	
RIPARIAN AREA		6.17 AC.	
UPLAND / GRASSLAND		21.55 AC.	

CITY OF TRACY

PROJECT NO. _____

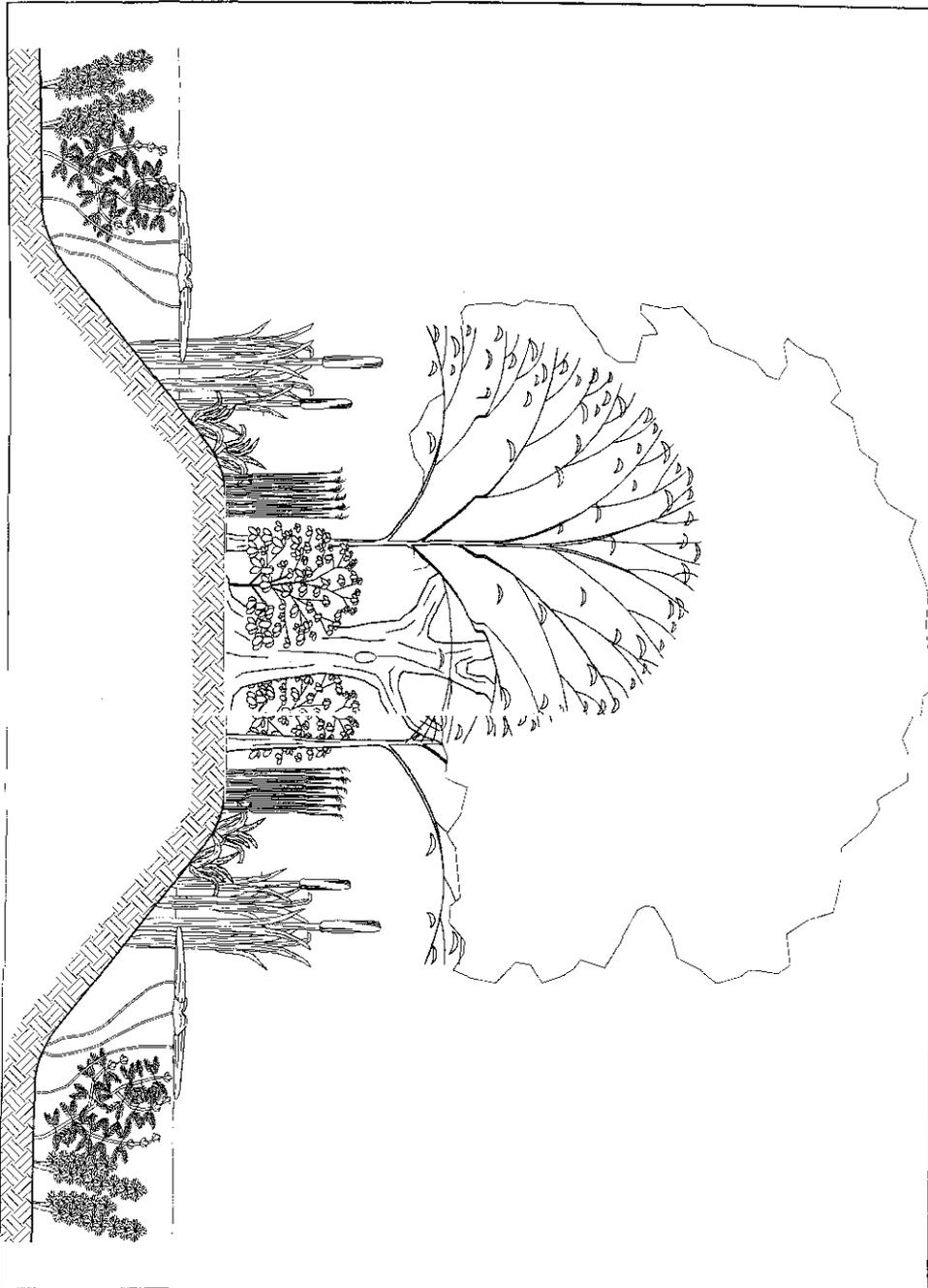
DATE _____

DAVID EVANS AND ASSOCIATES, Inc.

2880 TRACY BOULEVARD
SUITE FOUR
TRACY, CALIFORNIA 95376
TEL: (209) 832-8299
FAX: (209) 832-8374

TRACY WETLANDS
OVER VIEW

EXHIBIT
H



I

EXHIBIT

CROSS SECTION
OF ISLAND IN
OPEN WATER MARSH



DAVID EVANS AND
ASSOCIATES, Inc.
2880 TRACY BOULEVARD
SUITE FOUR
TRACY, CALIFORNIA 95376
TEL: (209) 832-8299
FAX: (209) 832-8374

CITY OF TRACY

APPROVED BY:

CITY ENGINEER _____ P.E. _____ DATE _____

Task 6. Determine potential cultural, recreational and educational benefits.

- Review record information for impacts to cultural resources.
- Work with City Parks and Recreation, and Tracy and Lammerville School District to explore recreational and educational benefits and opportunities.

Task 7. Determine preliminary construction and maintenance costs.

- Evaluate possible construction and maintenance options and determine methods that optimize the ecological, functional, recreational, and educational benefits.
- Project annual and project life monitoring, construction and maintenance costs for the project.
- Summarize and incorporate this information into report.

Field Studies

Task 1. Monitor city urban stormwater quality and flow characteristics.

- Review city's Master Plan HEC-1 Hydrologic/Hydraulic model to determine how the constructed wetland best functions with proposed system.
- Monitor urban stormwater flow rates at the wetland site over an annual cycle.
- Analyze urban stormwater quality on to determine treatment wetland design requirements over an annual cycle.
- Summarize in report.

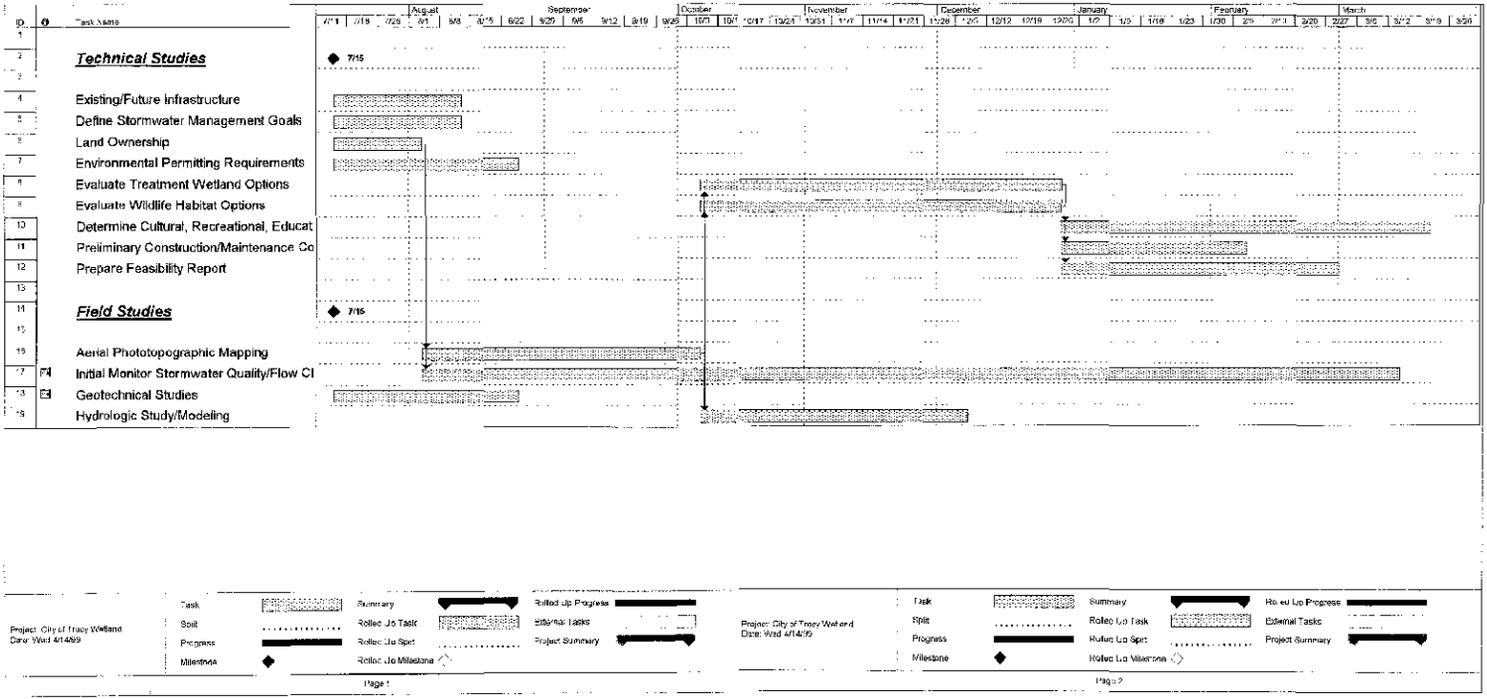
Task 2. Determine proposed wetland site characteristics, topography, geology, soils and hydrology.

- Obtain aerial phototopography of wetland site and surroundings (250 acres) to supplement upstream USGS watershed information for conceptual design purposes.
- Hire geotechnical sub-consultant to investigate geologic and soils conditions as input to technical design.
- Modify Master Plan HEC-1 model to include wetland function.

2.3 Phase I. Task Schedule

The following Exhibit depicts the proposed Project Schedule:

1-017306



Project: City of Tracy Wetland
Date: Wed 4/14/99

Project: City of Tracy Wetland
Date: Wed 4/14/99

Legend for Gantt chart symbols:

- Task: [Patterned box]
- Split: [Dotted line]
- Progress: [Solid bar]
- Milestone: [Diamond]
- Summary: [Arrow pointing right]
- Roll-up Progress: [Arrow pointing left]
- External Task: [Dotted line]
- Project Summary: [Arrow pointing right]

Legend for Gantt chart symbols:

- Task: [Patterned box]
- Split: [Dotted line]
- Progress: [Solid bar]
- Milestone: [Diamond]
- Summary: [Arrow pointing right]
- Roll-up Progress: [Arrow pointing left]
- External Task: [Dotted line]
- Project Summary: [Arrow pointing right]

Page 1

Page 2

1-017306

2.4 Phase I. Project Deliverables

The Feasibility Study Report will include information collected upon completion of the above project tasks. This report will be subdivided into the following subject areas:

- Land Use/Ownership
- Legal Access
- Regulatory
- Cultural
- Environmental Conditions
- Site Characteristics
- Topography
- Geology/Soils
- Water Quality
- Hydrology

3.0 LOCATION AND/OR GEOGRAPHIC BOUNDARIES OF THE PROJECT

The proposed wetland project will be located Northwest of the City of Tracy in San Joaquin County, upstream of Wicklund Cut, which is the point where future urban stormwater runoff and existing agricultural tailwater are discharged into Old River (*see Exhibit A*). Note that the intersection of Bethany Road and Wicklund Road has a Latitude of 37.78035 and Longitude of -121.51667 and the intersection of Wicklund Road and Byron Road has a Latitude of 37.77453 and Longitude of -121.51683. This portion of the South Delta is influenced by daily tidal flow rates that are shown on *Exhibit C*. The proposed wetland will be primarily fed by what we will refer to as the Lammers Drainage System as shown in *Exhibit D*. At build-out the watershed will drain over 5500 acres of residential, commercial and industrial property before discharging into Old River.

4.0 ECOLOGICAL/BIOLOGICAL BENEFITS

4.1 Scientific Hypothesis

Constructed wetland systems can successfully treat urban stormwater and agricultural runoff while providing beneficial reuse of wastewater for human and wildlife activities.

4.2 Primary Stressors

The major sources of pollutants in urban runoff can arise from direct deposit on paved surfaces due to industrial activities, motor vehicles (exhaust emissions, tire wear, oil leaks, fuel additives (MTBE), mechanical wear), wear of surface coatings, chemical spills and waste thrown on road surfaces and in storm drains. Many of these pollutants are present as suspended solids, BOD, nutrients,

hydrocarbons, heavy metals and pesticides. Heavy metals (lead, copper, cadmium, zinc and arsenic) can be dissolved or solid forms.

4.3 Expected Ecological/Biological Benefits

The City of Tracy Wetlands Stormwater Reuse Habitat; Phase I Treatment Wetlands Feasibility Study provides the following benefits consistent with those outlined in the Ecosystem Restoration Program Plan:

- The enhancement of water quality and habitat for fish species (p. 29).
- Creation of habitat for shorebirds, amphibians, and mammals (multiple species), (p. 28).
- Creation of a natural, self-sustaining wetlands and related processes (p. 29).
- Adaptive management and monitoring of natural processes and results (p. 29).
- Control of runoff volume and duration to assist flushing of Old River (periodic).
- Reduction of body burden contaminants in edible species that contribute to human health problems.
- Habitat improvement (downstream) for northern pintail and steelhead (p. 34).
- Creation of a large expanse (200 acres) of natural landscape, habitat mosaics, including shaded aquatic habitat (p. 28).
- Filtration of contaminants from water in Delta Region and drinking water drawn from the Delta Mendota Canal System.

4.4 Self-Sustaining/Durability

Constructed wetlands can be created to be self-propagating and sustaining for long periods of time (20+ years). Through monitoring of the effectiveness of filtration and water quality characteristics, the wetland can remain serviceable through adaptive management practices to extend the effective project life.

4.5 Linkages

This project is Phase I of a series four phases: Phase II being wetland design criteria development, Phase III being a wetland pilot project, and Phase IV being the actual construction of the 200-acre wetland. Other linkages related to watershed stewardship and public education include involvement of local school districts' use of the facility as an "outdoor laboratory" coupled with learning programs of stewardship within urban watersheds.

4.6 Non-Ecosystem Objectives

Through local school district involvement, children (and the public) can be educated regarding the positive results of water efficiency and watershed management.

4.7 Third Party Benefits

Enhancement of drinking water quality conveyed in and withdrawn from the Delta Mendota Canal and the California Aquaduct for residents of Tracy and other southern communities.

5.0 TECHNICAL FEASIBILITY AND TIMING

The selection of wetland treatment of stormwater (rather than chemical or mechanical processes) was selected due to its cost and ecological advantages. For the feasibility report, the environmental compliance documents required under CEQA would be limited to an Initial Study/Checklist. As part of the feasibility stage the work performed during Phase I will, however, include determining and listing all permitting requirements that will apply to subsequent phases of the project. At the feasibility stage it is not anticipated that permits or agreements with San Joaquin County will be necessary. Consequently, the project schedule contained in this proposal is representative of actual project timing.

6.0 MONITORING AND DATA COLLECTION METHODOLOGY

A key component of the Phase I Feasibility Study will be to monitor city urban stormwater quality and flow characteristics as outlined in Task 8. To achieve this objective, water quality and flow monitoring will be conducted over 12 months at six sites. Sampling sites will include four drainage outlets near the proposed wetland site, at Wicklund Cut and where Wicklund Cut meets Old River. Water samples will be collected monthly during dry months (May-November) and biweekly during wet months (December-April). Supplemental water samples will also be collected during peak flows caused by major rain events for a total of approximately 25 surface water samples (Table 1).

Stormwater will be sampled according to the Bottle Submersion Method using 500-ml acid-rinsed Nalgene bottles. Water samples will be analyzed for pH, EC, DO, TSS, BOD₅, nutrients, hydrocarbons, heavy metals and pesticides. Dissolved metals will be measured directly from water samples with ICP-AES and AA according to EPA and Standard Methods (Section 3120 B. and 3500). For Total metals, collected water samples will be acidified to pH<2 and transported at 4°C. Stormwater samples will receive a preliminary acid digestion to reduce interference by organic matter and to convert metal associated with

particulates to a form that can be determined by AA or ICP. This digestion is a HNO_3 digestion according to STD Methods, 1992, Section 3030 E., followed by analysis for all trace elements of interest that can be run on ICP (EPA Method 200.7). To analyze selenium, arsenic and mercury from water samples following the digestion, we will use the AA/hydride generation method following Varian's procedure for the VGA-76 vapor generator.

We will use a logarithmic transformation on monitoring study data if tests of normality and heterogeneous variables show that transformation is necessary. Sample means of water quality constituent concentrations and standard errors of the mean (S.E.M.) will be determined for water samples. To determine the overall significance of temporal and spatial variation on water quality constituent concentrations, ANOVA will be used where sampling time and sampling location are considered the fixed effects in a repeated measures statistical design. If significance is found ($P < 0.05$), Tukey's multiple comparison procedures will be used to separate means.

From this data, we will develop important design parameters so that effective urban stormwater treatment will be designed into the wetland system. A summary of this monitoring study, with seasonal water quality and flow rate values with accompanying graphics, will be included under the water quality section of the Phase I Feasibility Report.

Table 1. Monitoring and Data Collection Information

Hypothesis/Question to be Evaluated	Monitoring Parameters	Data Evaluation Approach	Comments/Data Priority
What is the City of Tracy's seasonal stormwater quality?	Samples collected monthly & biweekly at 6 sites over 12 months. Bottle Submersion Method, acid-rinsed 500-ml Nalgene bottles. Constituents: SS, BOD ₅ , TN & P, NH ₄ , NO ₃ , HC, metals and pesticides.	≈25 water samples; acidified (pH<2) and transported @ 4°C. ICP-AES and AA according to EPA and Standard Methods (Section 3120 B, 3030 E. and 3500)	Stormwater samples to be collected during dry and wet months and during peak rain events.
What is the City of Tracy's seasonal stormwater flow rates?	Samples collected monthly & biweekly at 4 sites over 12 months.	Flow rate samples collected with Swiffer hand-held current velocity meter (Model 3000).	Stormwater flow rate samples to be collected during dry and wet months and during peak rain events.

7.0 LOCAL INVOLVEMENT

This project will form a local partnership between the City of Tracy, the underlying property owners, and local educational interests. In determining the programming of the constructed wetland and the educational amenities provided to the community, the City of Tracy will be working closely with its partners in community outreach programs to solicit public input. During Phase I it is expected the city staff will be working directly with representatives of Tracy Unified School District and Lammersville School District to better understand how this community resource can be best conceived and utilized to promote educational, cultural, ecological and recreational benefits. In subsequent phases, the public and agency involvement will be expanded as specific design issues and opportunities are addressed in a series of "open house workshops", publicity and press releases, and educational programs developed for the schools.

TASK	TOTAL BUDGET						
	DIRECT LABOR HOURS	DIRECT SALARY & BENEFITS	SERVICE CONTRACTS	MATERIAL & ACQUISITION COSTS	MISC & OTHER DIRECT COSTS	OVERHEAD & OTHER DIRECT COSTS	TOTAL COST
Existing/Future Infrastructure	68	3748				2892	6640
Stormwater Management Goals	48	2551				1969	4520
Land Ownership	12	655				505	1160
Environmental Permitting Requirements	50	2613				2017	4630
Treatment Wetlands Options	168	9031				6969	16000
Habitat Wetlands Options	164	8631				6699	15380
Cultural, Recreation, Education Benefits	88	4753				3667	8420
Preliminary Construction/Maintenance Costs	74	4036				3087	7150
Prepare Feasibility Report	136	7450				5750	13200
Aerial Photographic Mapping			18,000				
Monitoring Stormwater Flow/Characteristics	298	16357		3,000		12623	28980
Geotechnical Studies			7,000				
Hydrology Study/Modeling	116	5923				4577	10500
Laboratory Testing - Water Quality			5,000				
						TOTAL	\$149,660

Note: The provisional 1999 Overhead rate for David Evans and Associates, Inc is 138.33%
in addition, the Facilities and Capital Costs of Money Factor in accordance with FAR 52-215.30 is 3.1%
The Direct Salary and Benefits Multiplier is 130.46%

TASK	QUARTERLY BUDGET	QUARTERLY BUDGET	QUARTERLY BUDGET
	JULY-SEPT 1999	OCT-DEC1999	JAN-MARCH 2000
Existing/Future Infrastructure	6640		
Stormwater Management Goals	4520		
Land Ownership	1180		
Environmental Permitting Requirements	4630		
Treatment Wetlands Options		16000	
Habitat Wetlands Options		15380	
Cultural, Recreation, Education Benefits			8420
Preliminary Construction/Maintenance Costs			7150
Prepare Feasibility Report			13200
Aerial Phototopographic Mapping	18000		
Monitoring Stormwater Flow/Characteristics	9660	9660	9660
Geotechnical Studies	7000		
Hydrology Study/Modeling		10500	
Sampling/Laboratory Expenses	2667	2666	2667
SUBTOTAL	54277	54206	41097
			TOTAL
			\$ 149,580

CALFED

City of Tracy
Jack Bond, P.E.
Project Manager

Timothy P. McCann, AICP
Project Principal
David Evans & Associates

G. Mel Lytle
Senior Wetland Ecologist
David Evans & Associates

Dan Heagerty
QA/QC
David Evans & Associates

Christine Marshall
Wetlands Biologist
David Evans & Associates

Rick Attanasio, P.E.
Environmental Engineer
David Evans & Associates

Jack Lonergan, P.E.
Civil Engineer
David Evans & Associates

Rick Attanasio, P.E.
Hydrologist
David Evans & Associates

DEA SUPPORT STAFF

9.0 Application Qualifications

Jack Bond, P.E.

Senior Civil Engineer – Capital Improvement Projects (CIP)

Mr. Bond has over 19 years experience with public works/engineering projects. He is responsible for administering a large portion of the City of Tracy CIP projects. His experience includes sewer, water, roadways, and storm drainage Master Planning. He is currently Project Manager for the implementation of the city's Storm Drainage Outfall design and construction. In addition, he has extensive experience with stormwater runoff and detention basin design.

C. Mel Lytle, Ph.D.

Senior Wetland Ecologist

After completing a Ph.D. in Botany/Wetland Ecology in 1994, Dr. Lytle accepted a visiting post-doctoral fellowship at the University of California, Berkeley where he led a nationwide study of constructed wetland treatment systems. His expertise and project experience includes constructed wetland function and design, wetland biogeochemistry, ecology and restoration. In addition, his research has involved the study of contaminate speciation and uptake in aquatic ecosystems. Dr. Lytle is the author of a large number of peer-reviewed publications and reports and has given numerous presentations at national symposia regarding his wetland research.

Selected Project Experience

Tulare Lake Drainage District Flow-Through Wetland Study

Conducted a 12-month quantitative field study, sponsored by the UC Salinity Drainage Task Force and the California State Department of Water Resources, to determine the seasonal fate, cycling and chemical speciation of selenium and other trace elements from contaminated agricultural drainage water.

Tulare Lake Drainage District Flow-Through Wetland Design and Construction

Designed, directed construction and planting of a 10-cell "Flow-Through" wetland in the Tulare Lake Basin of California. This 5-acre wetland pilot project was planted with eight different wetland plant species that was designed to test the concept that wetland plants may remediate toxic selenium in agricultural tile-drainage water via biological volatilization.

Electrical Power Research Institute Constructed Wetland Study

Conducted a two-year quantitative wetland field study, sponsored by the Electrical Power Research Institute, to determine the role that wetland plants play

Phase I Tracy Wetlands Stormwater Reuse Habitat

04/15/99

Page 15

in removal of 26 trace elements from contaminated industrial wastewater. This study was conducted at three constructed wetland sites: the Chevron Water Enhancement Wetland, Richmond, California, the Allegheny Power Passive Treatment Wetland, Pittsburgh, Pennsylvania and Tennessee Valley Authority Widows Creek Wetland, Flatrock, Alabama.

Great Basin Wetlands/Watershed Study

Conducted a two-year quantitative field study, sponsored by the Wildlife Society, of the Fish Springs National Wildlife Refuge, Bear River Migratory Bird Refuge, Clear Lake Wildlife Management Area and the Provo and Sevier River Watersheds to determine the environmental significance of heavy metal bioaccumulation among aquatic plant food resources. This study included the monthly monitoring and speciation of heavy metals in wetland plant tissues, surface water, sediments and wildlife tissues to determine heavy metal cycling, fate and environmental impact.

Education

Ph.D., Botany/Wetland Ecology, Brigham Young University, 1994
M.S., Agronomy/Plant Nutrition, Brigham Young University, 1990
B.S., Agronomy/Production Agribusiness, Brigham Young University, 1988

Professional Affiliations

Chairman; Water Environment Research Foundation Project Subcommittee
National Water-Quality Assessment Program Salt Lake Basins Liaison
Committee
Society of Wetland Scientists
International Association of Water Quality
Ducks Unlimited
Ecological Society of America
American Chemical Society

Recent Publications

Lytte, CM FW Lytle, N Yang, J-H Qian, D Hansen, A Zayed and N Terry, (1998), "Reduction of (CrVI) to (CrIII) by wetland plants: Potential for in situ heavy metal detoxification." Environmental Science and Technology 32, 3087-3093.

Pilon-Smits, EAH MP De Souza, CM Lytle, C Shang, T Lugo and N Terry, (1998), "Selenium volatilization and assimilation by hybrid Poplar (*Populus tremula x alba*)." Journal of Experimental Botany 49, 1889-1892.

Recent Presentations

Phase I Tracy Wetlands Stormwater Reuse Habitat
04/15/99
Page 16

"Exploiting Constructed Wetland Biogeochemistry for Applied Phytoremediation Purposes." Department of Chemistry, University of Texas at El Paso, October, 1998, El Paso, Texas.

"Constructed Wetland Treatment System/Biogeochemical Processes." Allegheny Power Constructed Wetlands for Industrial Wastewater Treatment Workshop, July, 1998, New Kensington, Pennsylvania.

"Plant Establishment, Growth and Biomass Production in Flow-Through Treatment Wetlands." University of California Salinity Drainage Program Annual Meeting, April, 1998, Sacramento, California.

FIRM DESCRIPTION

David Evans and Associates, Inc.

DEA was founded by Mr. David Evans in Portland, Oregon, the firm's corporate headquarters. Today, we have over 20 offices and 850 employees in California, Oregon, Washington, Alabama and Arizona. DEA's services include: Environmental Analysis and Permitting, Hydrologic/Hydraulic Analysis, Civil and Environmental Engineering, Land Planning, Transportation Engineering, Surveying, Landscape Architecture, Right-of-Way and Geographic Information Systems.

DEA is currently ranked 93rd on Engineering News Record's (ENR) list of the Top 500 Design Firms and 54th on it list of Top 100 "Pure" Designers in the nation. The firm is also a founding member of GDA (Global Design Alliance), a national consortium of 15 of the US's most prominent architecture and engineering companies.

The following table defines assigned personnel and task responsibilities for the project:

TASKS	Storm Infrastructure	Stormwater Management Goals	Land Use/Ownership	Permitting	Wetland Design Option	Habitat Development Options	Cultural/Recreation/Education	Preliminary Construction	Maintenance Cost	Urban Stormwater Quality/Flow	Site Characteristics	Topo/Gee/Sons/Lytle
Jack Bond Project Manager	•	•			•			•		•	•	
Mel Lytle Senior Wetland Ecologist		•			•	•		•		•	•	
Dan Heagerty QA/QC		•			•	•		•				
Tim McCann Project Principal		•	•	•	•			•		•		
Christine Marshall Wetland Biology					•	•						
Rick Attanasio Environmental Engineer			•		•	•		•				
Jack Lonergan Civil Engineer		•			•			•		•	•	
Rick Attanasio Hydrology						•		•		•	•	
Soils Engineer											•	•



SOUZA
REALTY &
DEVELOPMENT

April 14, 1999

Mr. Jack Bond, P.E.
City of Tracy Department of Public Works
520 Tracy Blvd.
Tracy, CA 95376

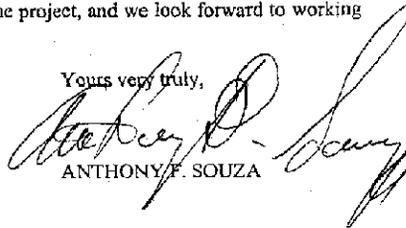
SUBJECT: TRACY WETLANDS STORMWATER REUSE HABITAT

Dear Jack:

As you know, our family owns the property to the south of Wicklund Cut. The property comprises of approximately 200 acres and is Assessor's Parcel Numbers 209-310-03, 209-310-06, and 209-310-07. This letter is written in response to your inquiry to let you know that we would be willing to negotiate with the City of Tracy for the purchase of those three parcels of land in conjunction with the contemplated Wetlands Stormwater Reuse Habitat project. We feel this is a noteworthy project that will benefit a great number of the residents of Tracy.

Please keep me informed as you proceed with the planning of the project, and we look forward to working together.

Yours very truly,



ANTHONY F. SOUZA

105 EAST TENTH STREET, SUITE 100, TRACY, CA 95376
PHONE: (209) 835-8310 FAX: (209) 832-8355

I - 0 1 7 3 2 0

I-017320

NONDISCRIMINATION COMPLIANCE STATEMENT

STD. 19 (REV. 3-95) FMC

COMPANY NAME

DAVID EVANS AND ASSOCIATES, INC.

The company named above (hereinafter referred to as "prospective contractor") hereby certifies, unless specifically exempted, compliance with Government Code Section 12990 (a-f) and California Code of Regulations, Title 2, Division 4, Chapter 5 in matters relating to reporting requirements and the development, implementation and maintenance of a Nondiscrimination Program. Prospective contractor agrees not to unlawfully discriminate, harass or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, disability (including HIV and AIDS), medical condition (cancer), age, marital status, denial of family and medical care leave and denial of pregnancy disability leave.

CERTIFICATION

I, the official named below, hereby swear that I am duly authorized to legally bind the prospective contractor to the above described certification. I am fully aware that this certification, executed on the date and in the county below, is made under penalty of perjury under the laws of the State of California.

TIMOTHY P. McCann

OFFICIAL'S NAME

DATE EXECUTED

4/15/99

PROSPECTIVE CONTRACTOR'S SIGNATURE

Timothy P. McCann

EXECUTED IN THE COUNTY OF

SAN JOAQUIN

PROSPECTIVE CONTRACTOR'S TITLE

OFFICE MANAGER

PROSPECTIVE CONTRACTOR'S LEGAL BUSINESS NAME

DAVID EVANS AND ASSOCIATES, INC.

Drug-Free Workplace Certification. By signing this contract, the Contractor or grantee hereby certifies under penalty of perjury under the laws of the State of California that the Contractor or grantee will comply with the requirements of the Drug-Free Workplace Act of 1990 (Government Code Section 8350 et seq.) and will provide a drug-free workplace by taking the following actions:

1. Publish a statement notifying employees that unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited and specifying actions to be taken against employees for violations.
2. Establish a Drug-Free Awareness Program to inform employees about all of the following:
 - (a) The dangers of drug abuse in the workplace,
 - (b) The person's or organization's policy of maintaining a drug-free workplace,
 - (c) Any available counseling, rehabilitation and employee assistance programs, and
 - (d) Penalties that may be imposed upon employees for drug abuse violations.
3. Every employee who works on the proposed contract or grant:
 - (a) Will receive a copy of the company's drug-free policy statement, and
 - (b) Will agree to abide by terms of the company's statement as a condition of employment on the contract or grant.

This contract or grant may be subject to suspension of payments or termination, or both, and the Contractor or grantee may be subject to debarment if the department determines that: (1) the Contractor or grantee has made a false certification, or (2) the Contractor or grantee violates the certification by failing to carry out the requirements noted above.

Antitrust Claims. In submitting a bid to a public purchasing body, the bidder offers and agrees that if the bid is accepted, it will assign to the purchasing body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, materials, or services by the bidder for sale to the purchasing body pursuant to the bid. Such assignment shall be made and become effective at the time the purchasing body tenders final payment to the bidder. See Government Code Section 4552.

If an awarding body or public purchasing body received, either through judgment or settlement, a monetary recovery for a cause of action assigned under this chapter, the assignor shall be entitled to receive reimbursement for actual legal costs incurred and may, upon demand, recover from the public body any portion of the recovery, including treble damages, attributable to overcharges that were paid by the assignor but were not paid by the public body as part of the bid price, less the expenses incurred in obtaining that portion of the recovery. See Government Code Section 4553.

Upon demand in writing by the assignor, the assignee shall, within one year from such demand, reassign the cause of action assigned under this part if the assignor has been or may have been injured by the violation of law for which the cause of action arose and (a) the assignee has not been injured thereby, or (b) the assignee declines to file a court action for the cause of action. See Government Code Section 4554.

Americans With Disabilities Act. By signing this contract, Contractor assures the state that it complies with the Americans With Disabilities Act (ADA) of 1990, (42 U.S.C. 12101 et seq.), which prohibits discrimination on the basis of disability, as well as all applicable regulations and guidelines issued pursuant to the ADA.

Corporate Qualifications To Do Business in California. Contractor must be currently qualified to do business in California as defined by the Revenue & Taxation Code, Section 23101 unless exempted. Both domestic and foreign corporations (those incorporated outside of California) must be in good standing in order to be qualified to do business in California.

Former State Employees: a) For the two-year period from the date he or she left State employment, no former State officer or employee may enter into a contract in which he or she engaged in any of the negotiations, transactions, planning, arrangements or any part of the decision-making process relevant to the contract while employed in any capacity by any State agency. b) For the twelve-month period from the date he or she left State employment, no former State officer or employee may enter into a contract with any State agency if he or she was employed by that State agency in a policy-making position in the same general subject area as the proposed contract within the twelve-month period prior to his or her leaving State service.

STANDARD CLAUSES - CONTRACTS WITH PUBLIC ENTITIES

Workers' Compensation Clause. Contractor affirms that it is aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code, and Contractor affirms that it will comply with such provisions before commencing the performance of the work under this contract.

Nondiscrimination Clause. During the performance of this contract, the recipient, Contractor and its subcontractors shall not deny the contract's benefits to any person on the basis of religion, color, ethnic group identification, sex, age, physical or mental disability, nor shall they discriminate unlawfully against any employee or applicant for employment because of race, religion, color, national origin, ancestry, physical handicap, mental disability, medical condition, marital status, age (over 40), or sex. Contractor shall insure that the evaluation and treatment of employees and applicants for employment are free of such discrimination. Contractor shall comply with the provisions of the Fair Employment and Housing Act (Government Code Section 12900 et seq.), the regulations promulgated thereunder (*California Administrative Code*, Title 2, Sections 7285.0 et seq.), the provisions of Article 9.5, Chapter 1, Part 1, Division 3, Title 2 of the Government Code (Government Code Sections 11135 - 11139.5), and the regulations or standards adopted by the awarding State agency to implement such article. Contractor or recipient shall permit access by representatives of the Department of Fair Employment and Housing and the awarding State agency upon reasonable notice at any time during the normal business hours, but in no case less than 24 hours' notice, to such of its books, records, accounts, other sources of information and its facilities as said Department or Agency shall require to ascertain compliance with this clause. Recipient, Contractor and its subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement. The Contractor shall include the nondiscrimination and compliance provisions of this clause in all subcontracts to perform work under the contract.

Availability of Funds. Work to be performed under this contract is subject to availability of funds through the State's normal budget process.

Audit Clause. For contracts in excess of \$10,000, the contracting parties shall be subject to the examination and audit of the State Auditor for a period of three years after final payment under the contract. (Government Code Section 8546.7).

Payment Retention Clause. Ten percent of any progress payments that may be provided for under this contract shall be withheld per Public Contract Code Sections 10346 and 10379 pending satisfactory completion of all services under the contract.

Reimbursement Clause. If applicable, travel and per diem expenses to be reimbursed under this contract shall be at the same rates the State provides for unrepresented employees in accordance with the provisions of Title 2, Chapter 3, of the California Code of Regulations. Contractor's designated headquarters for the purpose of computing such expenses shall be: _____

Drug-Free Workplace Certification. By signing this contract, the Contractor or grantee hereby certifies under penalty of perjury under the laws of the State of California that the Contractor or grantee will comply with the requirements of the Drug-Free Workplace Act of 1990 (Government Code Section 8350 et seq.) and will provide a drug-free workplace by taking the following actions:

1. Publish a statement notifying employees that unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited and specifying actions to be taken against employees for violations.
2. Establish a Drug-Free Awareness Program to inform employees about all of the following:
 - (a) The dangers of drug abuse in the workplace,
 - (b) The person's or organization's policy of maintaining a drug-free workplace,
 - (c) Any available counseling, rehabilitation and employee assistance programs, and
 - (d) Penalties that may be imposed upon employees for drug abuse violations.
3. Every employee who works on the proposed contract or grant:
 - (a) Will receive a copy of the company's drug-free policy statement, and
 - (b) Will agree to abide by terms of the company's statement as a condition of employment on the contract or grant.

This contract or grant may be subject to suspension of payments or termination, or both, and the Contractor or grantee may be subject to debarment if the department determines that: (1) the Contractor or grantee has made a false certification, or (2) the Contractor or grantee violates the certification by failing to carry out the requirements noted above.

Americans With Disabilities Act. By signing this contract, Contractor assures the State that it complies with the Americans With Disabilities Act (ADA) of 1990, (42 U.S.C. 12101 et seq.), which prohibits discrimination on the basis of disability, as well as all applicable regulations and guidelines issued pursuant to the ADA.

Former State Employees: a) For the two-year period from the date he or she left State employment, no former State officer or employee may enter into a contract in which he or she engaged in any of the negotiations, transactions, planning, arrangements or any part of the decision-making process relevant to the contract while employed in any capacity by any State agency. b) For the twelve-month period from the date he or she left State employment, no former State officer or employee may enter into a contract with any State agency if he or she was employed by that State agency in a policy-making position in the same general subject area as the proposed contract within the twelve-month period prior to his or her leaving State service.



DAVID EVANS AND ASSOCIATES, INC.

2880 Tracy Boulevard.

Suite Four

Tracy, California 95376

Tel: 209 832 8259

Fax: 209 832 8374

April 15, 1999

Mr. Henry Hirata, Director
San Joaquin County Public Works
1810 E. Hazelton Ave.
Stockton, CA 95201

SUBJECT: PHASE I FEASIBILITY STUDY OF THE TRACY WETLANDS STORMWATER REUSE HABITAT

Dear Mr. Hirata:

This letter is to inform you that we are working with the City of Tracy to prepare a CALFED project submittal. The City is proposing to study the feasibility of constructing a treatment wetland to remove contaminants from stormwater runoff prior to discharge into Wicklund Cut and Old River. Attached are Exhibits schematically depicting the project.

Under CALFED guidelines it is recommended that proposers notify local agencies of potential submittals and that is the intent of this correspondence.

Please call if you have any questions.

Sincerely,

DAVID EVANS AND ASSOCIATES, INC.

Timothy P. McCann, AICP
Office Manager

TPM:KZM