

APOLLO PARK IRRIGATION SYSTEM RENOVATION STATEMENT OF WORK

A-15c. - Section 1: Relevance and Importance

The proposed Apollo Park Irrigation Renovation Project will replace an outdated thirty-year old irrigation system that is utilized to irrigate over 10 acres of landscaping, baseball and soccer fields, and park recreation areas at a 14 acre city-owned park. It is estimated that water usage for the irrigated area of the park will be reduced from 41.2 acre-feet per year to 29.4 acre-feet per year. This will amount to a savings of 11.8 acre-feet per year, or a 29 percent reduction in potable water use at this location.

This park includes a senior center, gymnasium, leased office space, the City's Housing Offices, and a child day care center. The park is currently served by two water meters that provide both potable and landscaping water to the site. There are no dedicated meters for landscaping at this time.

Along with the replacement of the old irrigation system, this project will include the installation of two new dedicated irrigation meters that will be used to evaluate the consumption of water and in the future, the conversion of the irrigation system to a reclaimed water irrigation system.

A-15d. – Section 2: Technical/Scientific Merit, Feasibility

The preliminary plans and specifications for the project have been completed and are part of the submittal package. Once the agreement with DWR is signed, the project schedule would proceed as follows:

| | |
|----------------------------------------|------------------|
| Contract Executed | December 1, 2005 |
| RFP For Final Plans and Specifications | December 7, 2005 |
| Receipt of Proposals | January 5, 2006 |
| Award Contract | January 27, 2006 |
| Kick-Off Meeting | February 4, 2006 |
| 75 Percent Submittals | March 4, 2006 |
| 100 Percent Submittals | March 20, 2006 |
| Advertise For Construction | April 12, 2006 |
| Open Bids | May 15, 2006 |
| Award Project | May 26, 2006 |
| Kick-Off Meeting | June 17, 2006 |
| Notice To Proceed | June 20, 2006 |
| Completion of Construction (60 Days) | August 20, 2006 |

Design and Construction Costs

The final design and engineering activities will cost a total of \$25,000.
The construction and inspection activities will cost a total of \$540,432.

Preliminary Plans and Specifications

The preliminary plans and specifications are included as a part of this submittal. Due to the nature of this project, we were informed by DWR staff that a Certification Statement was not necessary.

Environmental Documentation

This project is replacing an existing irrigation system. As such this is not a project as defined by CEQA. The contractor will be required to follow all SUSMP and BMP's for a project of this type.

A-15e. – Section 3: Monitoring and Assessment

The water usage at Apollo Park is monitored through the reading of the two meters that currently serve the facility. Based on the monitoring records, a use of 44.72 acre-feet per year has been established. The estimated potable water (non-irrigation) usage at the senior center, gymnasium, City Housing offices and other facilities at the park have been evaluated and are attached. The estimated potable water usage is 3.82 acre-feet per year. This leaves 40.9 acre-feet per year as the water used for irrigation purposes.

Once the new irrigation and metering system is installed, only that water used for irrigation will pass through the irrigation meters. This will allow for a fully accurate assessment of irrigation usage for this site for comparison to historical usage.

Metered use information will be maintained within the City's Utilities Division files for future review. The information will be maintained in an Excel spreadsheet format.

The estimated costs for the implementation of the monitoring and evaluation plan are minimal and can be easily modified to meet DWR reporting requirements.

A-15f. – Qualifications of the Applicants and Cooperators

1. The resume of Brian A. Ragland, P.E., is attached.
2. External Cooperators will not be utilized for this project.
3. The City of Downey has not participated and any previous water use efficiency grant projects.
4. Applicant is not a disadvantaged community.

A-15g. – Outreach, Community Involvement, and Acceptance

Groups utilizing the Apollo Park Senior Center will be informed of the proposed project through the use of flyers and posting of the project plans in highly visible areas in the Center's foyer. In addition, the City Council will approve both the final design and construction contracts.

A-15h. – Innovations

Final design and construction will address the possibility of incorporating an E-T Controller as this site for evaluation and recommendations for future E-T installations at other park sites around the City. Should the E-T controller be installed, the information obtained will be made available to other water agencies and suppliers.

A-15i. – Benefits and Costs

Once completed, this project will reduce the areas reliance on imported water by up to twelve acre-feet each year. Because the design of the new irrigation system eliminates all potable water connections, in the future, should the City's reclaimed water system be extended to this park, an additional twenty-nine acre feet of imported water could be made available for other uses.

2004 Water Use Efficiency Proposal Solicitation Package

APPENDIX A: Project Information Form

Applying for:

Urban

Agricultural

1. (Section A) **Urban or Agricultural Water Use Efficiency Implementation Project**

(a) implementation of Urban Best Management Practice, # _____

(b) implementation of Agricultural Efficient Water Management Practice, # _____

(c) implementation of other projects to meet California Bay-Delta Program objectives, Targeted Benefit # or Quantifiable Objective #, if applicable

(d) Specify other: Irrigation Efficiency Improvement Project

2. (Section B) **Urban or Agricultural Research and Development; Feasibility Studies, Pilot, or Demonstration Projects; Training, Education or Public Information; Technical Assistance**

(e) research and development, feasibility studies, pilot, or demonstration projects

(f) training, education or public information programs with statewide application

(g) technical assistance

(h) other

3. Principal applicant
(Organization or affiliation):

City of Downey

4. Project Title:

Apollo Park Irrigation Renovation Project

5. Person authorized to sign and submit proposal and contract:

Name, title

Brian A. Ragland, P.E.

Deputy Director of Public Works

Mailing address

11111 Brookshire Avenue

Downey, CA 90241-7016

Telephone

(562) 622-3398

Fax.

(562) 904-7296

E-mail

bragland@downeyca.org

6. Contact person (if different):

Name, title. _____

Mailing address. _____

Telephone _____

Fax. _____

E-mail _____

7. Grant funds requested (dollar amount): **\$241,367**

(from Table C-1, column VI)

8. Applicant funds pledged (dollar amount): \$294,370

9. Total project costs (dollar amount): \$535,737

(from Table C-1, column IV, row n)

10. Percent of State share requested (%) 45

(from Table C-1)

11. Percent of local share as match (%) 55

(from Table C-1)

12. Is your project locally cost effective?

Locally cost effective means that the benefits to an entity (in dollar terms) of implementing a program exceed the costs of that program within the boundaries of that entity.

(a) yes

(b) no

(If yes, provide information that the project in addition to Bay-Delta benefit meets one of the following conditions: broad transferable benefits, overcome implementation barriers, or accelerate implementation.)

11. Is your project required by regulation, law or contract? (a) yes
If no, your project is eligible. (b) no

If yes, your project may be eligible only if there will be accelerated implementation to fulfill a future requirement and is not currently required.

Provide a description of the regulation, law or contract and an explanation of why the project is not currently required.

12. Duration of project (month/year to month/year): **12/05 to 8/06**

13. State Assembly District where the project is to be conducted: **50th**

14. State Senate District where the project is to be conducted: **27th**

15. Congressional district(s) where the project is to be conducted: **34th**

16. County where the project is to be conducted: **Los Angeles**

17. Location of project (longitude and latitude) **W118° 08" N33° 56'**

18. How many service connections in your service area (urban)? **23,000**

19. How many acre-feet of water per year does your agency serve? **18,900**

20. Type of applicant (select one):
- (a) City
 - (b) County
 - (c) City and County
 - (d) Joint Powers Authority
 - (e) Public Water District
 - (f) Tribe
 - (g) Non Profit Organization
 - (h) University, College
 - (i) State Agency

(j) Federal Agency

(k) Other

(i) Investor-Owned Utility

(ii) Incorporated Mutual Water Co.

(iii) Specify _____

21. Is applicant a disadvantaged community? If 'yes' include annual median household income.

(Provide supporting documentation.)

(a) yes, _____ median household income

(b) no

2004 Water Use Efficiency Proposal Solicitation Package
APPENDIX B: Signature Page

By signing below, the official declares the following:

The truthfulness of all representations in the proposal;

The individual signing the form has the legal authority to submit the proposal on behalf of the applicant;

There is no pending litigation that may impact the financial condition of the applicant or its ability to complete the proposed project;

The individual signing the form read and understood the conflict of interest and confidentiality section and waives any and all rights to privacy and confidentiality of the proposal on behalf of the applicant;

The applicant will comply with all terms and conditions identified in this PSP if selected for funding; and

The applicant has legal authority to enter into a contract with the State.

Brian A. Ragland, P.E.
Signature

Deputy Director of Public Works
Name and title

1/10/05
Date

APPENDIX C: Project Costs and Benefits Tables

Table C- 1: Project Implementation Costs (Budget)

Table C- 2: Annual Operations and Maintenance Costs

Table C- 3: Total Annual Project Costs

Table C-4: Capital Recovery Factor

Table C- 5: Project Annual Physical Benefits (Quantitative and Qualitative Description of Benefits)

Table C- 6: Project Annual Local Monetary Benefits

Table C- 7: Project Local Monetary Benefits and Project Costs

Table C- 8: Applicant's Cost Share and Description

**APPENDIX C
PROJECT IMPLEMENTATION COSTS TABLE**

APPLICANT: City of Downey
Project Title: Apollo Park Irrigation Renovation Project

If using the excel tables on DWR website, complete shaded areas only.

Section A projects must complete Life of Investment, column VII and Capital Recovery Factor, column VIII. Do not use 0.

Table C-1: Project Costs (Budget)

| | Category | Project Costs \$ | Contingency % (ex. 5 or 10) | Project Cost + Contingency \$ | Applicant Share \$ | State Share \$ | Life of investment (Years) | Capital Recovery Factor (Table C-4) | Annualized costs \$ |
|-----|--------------------------------------------------|------------------|-----------------------------|-------------------------------|-----------------------------|-------------------------|----------------------------|-------------------------------------|---------------------|
| | (I) | (II) | (III) | (IV) | (V) | (VI) | (VII) | (VIII) | (IX) |
| | Administration (for initiation of project) | | | | | | | | |
| | Salaries, wages | | | | | | | | |
| | Fringe benefits | | | | | | | | |
| | Supplies | | | | | | | | |
| | Equipment | | | | | | | | |
| | Consulting services | | | | | | | | |
| | Travel | | | | | | | | |
| | Other | | | | | | | | |
| (a) | Total Administration Costs ¹ | | | | | | | | |
| (b) | Planning/Design/Engineering | | | | | | | | |
| (c) | Equipment Purchases/Rentals/ Rebates/Vouchers | | | | | | | | |
| (d) | Materials/Installation /Implementation | | | | | | | | |
| (e) | Implementation Verification | | | | | | | | |
| (f) | Project Legal/License Fees | | | | | | | | |
| (g) | Monitoring and Assessment | | | | | | | | |
| (h) | Report Preparation | | | | | | | | |
| (i) | Structures | | | | | | | | |
| (j) | Land Purchase/Easement | | | | | | | | |
| (k) | Environmental Compliance/Mitigation/ Enhancement | | | | | | | | |
| (l) | Construction | | | | | | | | |
| (m) | Other (Specify) | | | | | | | | |
| (n) | TOTAL (=a+...+m) | | NA | | | | NA | NA | |
| (o) | Cost Share Percentage | NA | NA | NA | (row n, column V/ IV) x 100 | (100 – row o, column V) | NA | NA | NA |

¹ (Excludes administration O & M costs)

Table C-2: Annual Operations and Maintenance Costs

| Operations (1) (I) | Maintenance (II) | Other (III) | Total (IV) (I + II + III) |
|-----------------------|---------------------|----------------|---------------------------------|
| 800 | 1500 | | 2,300 |

(1) Include annual O&M administration costs here.

Table C-3: Total Annual Project Costs

| Annual Project Costs (1) (I) | Annual O & M Costs (2) (II) | Total Annual Project Costs (III) (I + II) |
|---------------------------------|-----------------------------------|-------------------------------------------------|
| \$49,254 | 2,300 | \$51,554 |

(1) From Table C-1, row (n) column (IX)

(2) From Table C-2, column (IV)

Table C-4: Capital Recovery Factor

(for a discount rate of 6%)

| Life of Project (in years) | Capital Recovery Factor |
|----------------------------|-------------------------|
| 1 | 1.0600 |
| 2 | 0.5454 |
| 3 | 0.3741 |
| 4 | 0.2886 |
| 5 | 0.2374 |
| 6 | 0.2034 |
| 7 | 0.1791 |
| 8 | 0.1610 |
| 9 | 0.1470 |
| 10 | 0.1359 |
| 11 | 0.1268 |
| 12 | 0.1193 |
| 13 | 0.1130 |
| 14 | 0.1076 |
| 15 | 0.1030 |
| 16 | 0.0990 |
| 17 | 0.0954 |
| 18 | 0.0924 |
| 19 | 0.0896 |
| 20 | 0.0872 |
| 21 | 0.0850 |
| 22 | 0.0830 |
| 23 | 0.0813 |
| 24 | 0.0797 |
| 25 | 0.0782 |

| Life of Project (in years) | Capital Recovery Factor |
|----------------------------|-------------------------|
| 26 | 0.0769 |
| 27 | 0.0757 |
| 28 | 0.0746 |
| 29 | 0.0736 |
| 30 | 0.0726 |
| 31 | 0.0718 |
| 32 | 0.0710 |
| 33 | 0.0703 |
| 34 | 0.0696 |
| 35 | 0.0690 |
| 36 | 0.0684 |
| 37 | 0.0679 |
| 38 | 0.0674 |
| 39 | 0.0669 |
| 40 | 0.0665 |
| 41 | 0.0661 |
| 42 | 0.0657 |
| 43 | 0.0653 |
| 44 | 0.0650 |
| 45 | 0.0647 |
| 46 | 0.0644 |
| 47 | 0.0641 |
| 48 | 0.0639 |
| 49 | 0.0637 |
| 50 | 0.0634 |

Table C-5: Project Annual Physical Benefits (Quantitative and Qualitative Description of Benefits)

| QUALITATIVE DESCRIPTION - REQUIRED OF ALL APPLICANTS ¹ | | | | QUANTITATIVE BENEFITS –(where data are available) ² |
|-----------------------------------------------------------------------------------------------------|--------------------------------------|------------------------------------|--------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Description of physical benefits (in-stream flow and timing, water quantity and water quality) for: | Time Pattern and Location of Benefit | Project Life: Duration of Benefits | State Why Project Bay-Delta benefit is Direct ³ ; Indirect ⁴ or Both | Quantified Benefits (in-stream flow and timing, water quantity and water quality) |
| Bay-Delta: Reduce demand on Bay-Delta supplies by up to twelve acre-feet per year. | Throughout the year. | 20 years | | Reduce demand on Bay-Delta supplies by up to twelve acre-feet per year. |
| Local: Reduce local demand by up to twelve acre-feet per year. | Throughout the year. | 20 years | Not Applicable | Reduce local demand by7 up to twelve acre-feet per year. |

¹The qualitative benefits should be provided in a narrative description. Use additional sheets to describe the benefits.

²The project benefits that can be quantified (i.e. volume of water saved or mass of constituents reduced) should be provided.

³Direct benefits are project outcomes that contribute to a CALFED objective within the Bay-Delta system during the life of the project.

⁴Indirect benefits are project outcomes that help to reduce dependency on the Bay-Delta system. Indirect benefits may be realized over time.

Table C-6. Project Annual Local Monetary Benefits

| ANNUAL LOCAL BENEFITS | ANNUAL QUANTITY ⁴ | UNIT OF MEASUREMENT | ANNUAL MONETARY BENEFITS (Thousands \$/yr) |
|-------------------------------------------------------------------|------------------------------|---------------------|--------------------------------------------|
| (a) Avoided Water Supply Costs (Current or Future Sources) | 11.8 | Acre-Feet | \$1,536 |
| (b) Avoided Energy Costs | 5,900 | KWH/AF | \$1,003 |
| (c) Avoided Waste Water Treatment Costs | 0 | 0 | 0 |
| (d) Avoided Labor Costs | 0 | 0 | \$1,422 |
| (e) Other (describe) | 0 | 0 | 0 |
| (f) Total [(a)+(b)+(c)+(d)+(e)] | NA | NA | \$3,962 |

⁴ Examples include avoided cost of current water supply (or future supply if available), energy savings, labor savings, waste water treatment.

Table C-7: Project Local Monetary Benefits and Project Costs

| | |
|---------------------------------------------------------------|----------|
| (a) Total Annual Monetary Benefits (Table C-6, row(f)) | \$3,962 |
| (b) Total Annual Project Costs (Table C-3, column III) | \$51,554 |

Table C-8: Applicant's Cost Share and Description

| | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| Applicant's cost share (%): (from Table C-1, row o, column V) | 55% |
| Describe how the cost share (based on relative balance between Bay-Delta and Local benefits) is derived (see Section A-7 for description). Provide description in a narrative form. | |
| | |



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