Statement of Work, Section One: Relevance and Importance

As California communities pursue ways to decrease expenditures and conserve limited water resources, the usage of artificial turf – in spite of its hefty upfront installation costs – is an alluring option given manufactures' claims that it will eliminate the need for field irrigation, the majority of maintenance expenditures and, through these savings, ultimately pay for itself. In the interests of sound public policy and particularly in light of the considerable product installation costs, these claims for this approach must be tested and the environmental impacts thoroughly investigated to ensure there is a credible cost-benefit advantage for funding these types of field conversions.

The Tiger Field Demonstration Project will be a comprehensive effort by the City of Redding to determine whether significant water use reductions and other positive environmental benefits can be realized in a cost effective manner through the replacement of existing natural grass playing surfaces with artificial turf. The results of this study will be readily transferable to other communities to assist in their determination of whether artificial turf is a viable avenue to achieve water conservation while still providing recreational facilities to their residents. Moreover, this study will provide the Department of Water Resources with the paradigm to establish and monitor future artificial turf replacement grant projects should our findings prove this to be a worthwhile and desirable approach.

Redding is uniquely qualified to perform this study for a number of reasons. Tiger Field, an established 50-year-old baseball park with antiquated irrigation equipment and a playing surface greatly in need of repair, is typical of the type of facility which most communities would seek to replace natural grass with artificial turf. Water service to the self-contained facility is easily measurable, allowing the City to establish accurate baseline standards and precisely monitor the predicted decreases in water usage. Perhaps most significantly, the City already has substantial experience with the installation, performance and customer reaction to the use of artificial playing surfaces. However, our experience is limited in the respect we have only installed these products in our newly

constructed sports facilities. The Tiger Field Demonstration Project will be our first effort at replacing an established natural grass field with an artificial playing surface and generating empirical comparative data detailing the impact on water resources utilized through this replacement.

Based on our initial assessments (discussed in detail below), we predict the Tiger Field Demonstration Project will prove that artificial turf fields can contribute directly toward the CALFED California Bay-Delta Program goals by reducing irrecoverable losses that occur through irrigation evaporation, substantially reducing the amount of water currently used at the facility, improving drainage, and eliminating the use of fertilizers, pesticides and other contaminants at the facility and thus preventing them from entering the local waters. Additionally, we calculate the increased playing capacity achieved through the use of artificial turf at Tiger Field will reduce the need for additional natural grass field construction in our community, forestalling the expected demand for additional water consumption and preventing increased run-off contamination.

We predict with confidence the end results of this effort will produce not only an improved, environmentally friendly ball field for the enjoyment of Redding residents and numerous other positive local impacts, but also a vital knowledge base regarding the advantages and disadvantages of natural grass to artificial turf conversions, including a thorough cost-benefit analysis.

The estimated cost for the total Tiger Field renovation project – including the installation of new field lighting that is being funded through other sources – is $1,186,260. The City is contributing $500,000 to cover the field lighting components, as well as the overall project administration and permitting costs. The grant amount requested from the Department of Water Resources for the artificial turf installation portion is $686,260.

Statement of Work: Technical/Scientific Merit, Feasibility

Water Consumption By Natural Grass Fields

Natural grass fields are substantial consumers of water in all communities that provide recreational services for their residents. Tiger Field, a 50-year-old baseball stadium with a playing field and irrigation system well over 30 years old, is no exception and is likely a prime example of this type of water usage. Our calculations based on the average irrigation schedule employed at the facility compute to 12,615 gallons of water used each week and 54,064 gallons used each month. Our community has a pronounced winter rainy season and the irrigation system is only employed for approximately six months a year, but that still works out to 324,386 gallons of water used annually merely to irrigate the natural grass playing surface at the ballpark. This sum is just under an acre-foot of water and is approximately the same amount of water utilized annually by a family of four.

It is unlikely that artificial turf can completely eliminate the need for maintenance-related water usage at a recreational facility. However, we anticipate maintenance-related water consumption at Tiger Field will be decreased by at least 80 percent, a predicted reduction of at least 259,509 gallons of water used annually (equivalent to the usage of a three-person family).

Forestalling Future Field Construction

The City of Redding is a disadvantaged community, not only as defined by the economic parameters provided in the grant application (discussed in detail below), but also in the service levels of baseball facilities provided to our population. The City's "Parks, Trails and Open Space Master Plan" completed in May 2004 determined that to be at the recommended service level to meet the needs of our community's population and user demographic there is an immediate need for 2.75 additional large baseball fields and 14.00 small baseball fields. These needs will only increase as our community continues to grow.

To meet these current and future recommended service levels constitutes a significant investment both in capital construction and ongoing costs. Accordingly, it is incumbent upon the City to ensure our resources are expended wisely while meeting the needs of our residents, and to look for opportunities to improve the return on investment and decrease costs were possible and practical. The Tiger Field Demonstration Project provides the opportunity to empirically test whether natural grass to artificial turf field conversion projects can not only reduce ongoing costs like irrigation and prevent contaminants from entering the run-off water supply, but also decrease the need to construct additional natural grass fields by managing a greater user capacity load.

The proposed conversion of Tiger Field from natural grass to artificial turf and the installation of the new lighting system – a separate improvement funded through other sources that will be completed concurrent the field replacement – will increase the user capacity of this large baseball field by a factor of three, based on our calculations computing the extended playing hours, the increased playing season, the shorter turn-around for field availability between rains, and the avoidance of annual field remediation. Thus, we predict the additional capacity served by Tiger Field following the turf conversion will forestall the need to build more natural grass ball fields to meet our level of service standards, helping to prevent additional demands on our water supply and prevent additional field maintenance chemicals from entering the run-off drainage. To confirm this prediction, field use will be monitored concurrent with the water usage.

Given that annual irrigation volumes for Tiger Field would be similar for other large natural grass fields, and assuming our projected field usage ratio of 3:1 proves to be correct, a lighted artificial turf Tiger Field will forestall the needed construction of two additional large natural grass baseball fields, preventing the imminent irrigation demand of another 648,772 gallons of water annually (the equivalent of two four-person households). Conversely, in other communities building a similar facility that have already achieved their recommended level of service ratios, they could take two natural grass fields out of service and recognize that reduced water consumption as immediate cost savings.

Current Environmental Conditions at Tiger Field

The grass playing surface and irrigation system at Tiger Field are more than 30 years old, and certainly showing their age. The sprinklers are inefficient and subject to significant evaporation loss, particularly in the height of summer. Thus, more water must be used to compensate for the evaporated loss. Drainage at the facility is quite poor, in part because the playing surface is not crowned and in part because there is not a proper drainage base beneath the grass surface. Consequently, winter season rainwater collects in the field, causing grass damage that results in pronounced maintenance and field grooming each spring, including increased fertilizer and chemical use and considerable labor.

Preliminary Plans, Specifications and Certification Statements

The Tiger Field Demonstration Project proposes the replacement of an existing natural grass field with an artificial turf product (likely FieldTurf). This installation process has been field tested for over 10 years in different communities in North America. The site will be prepared using rock base and underground drain lines to improve drainage and minimize sheet flow run-off. The artificial turf product, with longer blades to mimic the feel of real grass, will be installed over this base and provide a smooth, safe playing surface.

Although Tiger Field is our first natural grass replacement project, the City has developed preliminary cost estimates for this effort based on our experience with the installation of FieldTurf artificial turf at new facilities elsewhere in the community. These complete cost estimates for the overall project – which also includes the field lighting component funded through other sources – are reported in Table C-1.

Given the DWR target of contracts being finalized by December 1, 2005, our current schedule sets the Request for Proposals bid process for the design and installation of the artificial turf for January 2006. The bid contract will be awarded in spring 2006. Site preparation and infrastructure will begin in fall 2006 – after the completion of the 2006 baseball season – with installation of the turf and new field equipment in February 2007. The final site work and inspection is scheduled for March 2007.

Our baseline calculations regarding the current water usage data for natural grass will be supported through the continued usage monitoring at the facility during the 2005 and 2006 seasons (abstracting the construction period). Monitoring of the artificial turf water usage shall commence in March 2007 and continue through 2012, the five-year term stipulated in the grant application package.

Environmental Documentation and Permits

The Tiger Field Demonstration Project has already received a categorical Notice of Exemption under the California Environmental Quality Act as the project involves the replacement of existing structures. (A copy of this notice is attached.) There are no National Environmental Policy Act requirements for this project. The remaining construction-related permits will be obtained from our City of Redding Development Services Department as the final project designs are completed.

Statement of Work: Monitoring and Assessment

Assumptions, Methodologies and Computations for Total Expected Water Savings

The City has estimated that 324,386 gallons of water (just under one acre foot) are needed annually at Tiger Field for irrigation. This estimate was reached through the following process:

- Tiger Field was watered at 10 percent of the normal water schedule and usage was read from the water meter. 33.64 cubic feet of water was expended during this period, which computes to 336.4 cubic feet of water at 100 percent watering.
- Using the ratio that 1 cubic foot of water equals 7.5 gallons, the 336.4 cubic feet of water works out to 2,523 gallons of water used each day for irrigation purposes assuming a 100 percent flow.
- Calculating the daily water usage against the weekly watering schedule – four days a week at 100 percent flow, two days a week at 50 percent flow and one day at zero flow – works out to 12,615 gallons of irrigation water used each week.

- This computes to 54,064 gallons of irrigation water used on a monthly basis and 324,386 gallons of irrigation water used over a six-month period (the usual number months that Tiger Field irrigated annually).

This estimate provides an accurate baseline for estimating water use as it is unaffected by climatic variables such as unseasonably warm or cool weather that would result in either increases or decreases in the watering schedule. The recording of such variables will be incorporated into the actual project monitoring to provide a more accurate assessment. The ensure the most accurate weather data, the City will investigate partnering with one of our local colleges to establish a small educational-related weather station at Tiger Field to collect detailed, site-specific information.

Accepting that 324,386 gallons of water are used annually for irrigation purposes, we conservatively estimate that this maintenance-related water use at Tiger Field will decrease by at least 80 percent, or 259,509 gallons of water annually. The amount saved is equivalent to the annual water usage of a family of three. Despite some claims that artificial turf eliminates all need for water usage, based on our experience with other facilities we anticipate some water use to control field temperatures on especially hot days and potentially some water will be needed for field cleaning. (While artificial turf surfaces can be cleaned through sweeping alone, there will undoubtedly be some instances where a portion of the surface will need to be hosed off.)

Monitoring and Evaluation

There are two distinct monitoring phases to the Tiger Field Demonstration Project: 1) oversight of the construction period, specifically the installation of the artificial turf, and 2) monitoring the actually water usage and associated factors, both pre- and post-construction, and evaluating the results against our predictions of the benefits to be gained.

The construction phase of the project starts in 2006 with the RFP process for design, engineering and construction. The project will be awarded in early 2006 with actual

construction occurring in the late 2006-early 2007 period. This full construction period will be monitored to ensure value engineering has been optimized and the construction meets all standards and requirements. Progress reports will be provided to DWR on a quarterly basis detailing costs and progress.

Concurrent with this construction period, the Department of Community Services will confirm our water usage estimates prepared for this grant by actively monitoring water consumption and climactic conditions at Tiger Field during the 2005 and 2006 baseball seasons. This data, in addition to the previously prepared estimates, will provide a firm basis to contrast against the ongoing water use monitoring that will occur in the post-construction period. In addition, records will be kept detailing the amounts used and costs related to field maintenance materials (such as grass care chemicals) and the time and salary charges for maintenance personnel that are incurred at Tiger Field during the 2005 and 2006 seasons. These findings will be contrasted against the post-construction period detailing of ongoing costs to determine additional operational savings. Finally, to ensure a comprehensive analysis, the new ongoing costs – such as field lighting and recreation staff-time to administer the more-heavily used field – will be factored into the equation in additional to the new revenues generated by the facility. The combination of these elements will allow other communities to view the field conversion process not only from a water savings point of view, but also from the whole gamut of personnel requirements and recreation program delivery costs.

Progress reports detailing the above elements and measuring the findings against pre-construction predictions and past performance will be submitted to DWR on a regular basis. These progress reports will include all necessary background data so that other communities will be able to input their site-specific data (such as labor costs) to perform a more accurate comparative cost-benefit analysis for their particular locale.

Qualifications of the Applicants and Cooperators

Qualifications of City Staff

Considerable planning and forethought have been invested in the development of the Tiger Field Demonstration Project. City staff sought direction from the community to ensure this field conversion approach best meets the needs of the community (discussed in the next section) and we utilized staff expertise from various divisions to develop the effective pre-and-post construction water usage and environmental impact monitoring process described previously. Moreover, the project management team for the construction phase of the Tiger Field Demonstration Project has tremendous experience with the successful completion of large-scale capital improvement projects of similar and greater scope:

Karen McGrath, Community Projects Manager (Overall Project Manager)

Ms. McGrath brings strong organizational and project management skills to the many and varied community projects undertaken by the Community Services Department. She is the primary author of the City's "Parks, Trails and Open Space Master Plan," the culmination of a three year community effort to create a 20-year blueprint for park and open space planning for this area, that was accepted by City Council in May 2004. Ms. McGrath's background in landscape architecture makes her well qualified to tackle the diverse requirements of park planning and design. She is the designer and project manager for the $800,000 three-acre City Hall Sculpture Park project currently in progress, and has been responsible for overseeing numerous improvements in our park system. Prior to working in Redding, Ms. McGrath had her own landscape design firm, and worked in community planning for both the City of Vancouver, Washington, and the County of Kern, California. Ms. McGrath holds a Bachelors Degree in Geography, with graduate-level work in Environmental Design and Landscape Architecture. (A detailed resume for Ms. McGrath is attached.)

Danny Baugh, Construction Manager, City of Redding

Mr. Baugh was a long time Redding area contractor and project manager who came to work for the City of Redding in 2002. Prior to his employment with the City, Mr. Baugh was involved in the multi-million dollar Turtle Bay Museum project and served as the resident inspector on the Redding Civic Center. Since joining the City, Mr. Baugh has been the construction manager for the Redding Aquatic Center (a $5.4 million project which opened in 2003) and the Redding Sports Park (a 30-acre, $20 million recreation facility with five artificial turf fields that opened in 2004).

Stephen W. Strong, Finance Officer, City of Redding

Mr. Strong has served as Finance Officer for the City of Redding since 1995. He is a Certified Public Accountant and holds a Masters Degree in Business Administration. Prior to working for the City of Redding, Mr. Strong worked for an international certified public accounting firm and a local certified public accounting firm where he managed governmental consulting and audit engagements. The Finance Division will be responsible for providing financial oversight on the project.

Kimberly A. Niemer, Director of Community Services, City of Redding

Ms. Niemer has been with the City of Redding since 1996 and has served as the Director of Community Services since 2001. She holds a Masters Degree in Public Administration. Ms. Niemer was the lead project manager on the Redding Aquatic Center project, associate project manager on the Redding Sports Park and will be associate project manager on the Redding Soccer Complex (planned for 2005). The Community Services Department's Administration Division will be responsible for managing the project (via Ms. McGrath) as well as coordinating grant funding, and preparing all the required progress reports. The Recreation Division will be responsible for operating and programming the facility upon completion.

Qualifications of Redding as a Disadvantaged Community

The City of Redding is a community of over 87,000 residents located 125 miles south of the Oregon border at the north end of the Sacramento Valley. We are the largest metropolitan area north of Sacramento with a primary market area population of over 175,000 and a secondary market area of over 250,000 people. We are also the first major community drawing water from the Sacramento River, and our consumption needs impact downstream communities. [Source of Data: 2004 Population Estimates, California Department of Finance, Demographic Research Unit.]

There are significant economic challenges faced in this community. While tremendous strides have been made over the last decade to replace lost timber industry jobs and to diversify the rural resource-based economy, the City of Redding remains located in an economically depressed area of California with unemployment rates that are consistently higher than the state average and median income levels that are substantially lower than the State average. Through 2004 the local unemployment rate has hovered two percentage points higher than the state average (8.3 percent versus 6.3 percent, respectively), virtually identical to the average of the rates through the last decade since 1995 (8.36 percent versus 6.24 percent, respectively). Mean annual income for all occupations in Redding is $32,590 compared to $39,640 for California. The difference is even more pronounced when comparing the better paying management occupations. As a component of the local labor force, management positions are a full percentage point lower than the State average – 4.5 percent in Redding versus 5.6 percent for the State – with a sizable difference in mean annual income -- $ 66,310 for Redding versus $92,740 for the State. [Sources of Data: State of California Employment Development Department, Labor Market Information Division and 2002 Occupational Employment and Wage Estimates, U.S. Department of Labor, Bureau of Labor Statistics.]

Outreach, Community Involvement and Acceptance

Community Involvement and Acceptance

Over the last two years, considerable planning has been invested in the development of the Tiger Field Demonstration Project. In addition to the talents of our skilled staff and experts in the field, the City has sought direction from the community to ensure this field conversion approach best meets the needs of the community.

The ad hoc Tiger Field Improvement Committee (TFIC) was formed in 2003 to assist the City in the comprehensive planning and project scope identification efforts. The TFIC is composed of Tiger Field's primary users: local nonprofit organizations, local sports leaders, a City Council member, and members of the business community and media who are committed to providing Redding with a quality sports facility. Working in conjunction with Karen McGrath, the City's Tiger Field Project Manager, the TFIC has thoroughly investigated over the last two year the various needs and conditions of Tiger Field. The committee's findings determined the top priority for the facility was the replacement of the more than 30-year-old playing field and irrigation system. The committee strongly favored the use of artificial turf, based not only on their assessment of the conservational and environmental benefits, but also given their positive experience with the product at the newly constructed Redding Sports Complex.

Dissemination of Information and Project Results

The City of Redding has a number of vehicles to promote the Tiger Field Demonstration Project and share the results with our citizens. In addition to the press releases and media coverage attendant to any large capital improvement, there are a number of in-house generated publications such as the newsletter provided with the monthly utility bills, circulars from the Planning and Building Departments and the City website. Our Recreation Division produces 34,000 program catalogues each quarter that are inserted into the local newspaper, delivered to select households across the Greater Redding area and available at various locations throughout the City. The Redding City Council regularly receives reports on innovative projects and cost-savings initiatives that become part of the public record. The City's annual "State of the City Report," the Finance

Department's "Comprehensive Annual Financial Review" and the "Biennial Budget" all detail projects that benefit the community. City representatives regularly meet with local community groups and provide presentations on new City initiatives. We anticipate that all of these venues would be utilized to draw awareness to the project, report the findings of the effort and recognize the involvement of DWR.

The City maintains strong relationships with other communities and state agencies and regularly communicates and networks information informally on a peer-to-peer basis. Given the beneficial nature of this study and our emphasis on ensuring transferable benefits, it is likely our findings would be collected as articles for appropriate professional journals and developed into a presentation for conferences so other communities could utilize this data in their facility development and service delivery planning processes.

Training, Employment and Social Benefits

Given that this project involves the renovation of a City-core baseball field to increase its usability and capacity-load, there are obvious recreational and health benefits. Residents will gain access to a first-class facility that will allow the City to expand its baseball-related recreation programming. The additional capacity will ensure there will be more opportunities to play. This will generate the need for more seasonal recreation staff funded by the additional program revenues generated.

Tiger Field is located immediately adjacent to one of the City's lowest income and under-served neighborhoods, particularly in readily accessible and conveniently located recreation facilities. The renovation of Tiger Field and the increased playing times available will help contribute to the alleviation of this need, and will be a key element in the overall improvement of the Parkview community.

The elimination of all grass care-related chemicals at Tiger Field will achieve significant reductions in the volume of these substances entering the water supply, providing a

benefit not just to the local community, but all other communities downstream in the Bay-Delta system.

Innovation

Artificial turf products, particularly those like FieldTurf that mimic natural surfaces, are now widely accepted, well-established products with an excellent record of quality and durability, and thus are no longer in and of themselves particularly innovative. However, the Tiger Field Demonstration Project will be the first conversion of an existing natural grass field to artificial turf in the Upstate California region, and accordingly the first opportunity for the generation of quantifiable data to measure the benefits gained via this approach.

As discussed previously, we predict immediate benefits for our community. Following the installation of this product at Tiger Field we anticipate a drop in annual maintenance-related water consumption of at least 259,509 gallons of water (a decrease of 80 percent). We further anticipate the additional field capacity made available at the baseball facility through the use of artificial turf will forestall the need for two additional grass fields in the community, preventing the imminent demand for another 648,772 gallons of irrigation water annually by the City of Redding. The elimination of fertilizers, pesticides and other harmful chemicals required for lawn maintenance at the facility will ensure these pollutants no longer enter the storm sewer system and into the water supply. Improved drainage at the Tiger Field will ensure downstream run-off is reduced.

Our methodology developed through the Tiger Field Demonstration Project will be readily transferable to other communities to assist in their determination whether artificial turf is a viable avenue to achieve real water conservation and operational cost savings while still providing recreational facilities to their communities. This study will also provide the Department of Water Resources with the model to establish and monitor

future artificial turf replacement grant projects should our findings prove this to be a worthwhile and desirable approach.

Finally, the water savings envisioned by this project are not incorporated into the City's current Water Conservation Plan. Thus, the Tiger Field Demonstration Project will help the City achieve excess water savings beyond the goals of the plan and, depending on our success, may also pave the way for the development of similar projects in this and neighboring communities, in addition to producing transferable results for the use of other jurisdictions and private entities throughout California.

Costs and Benefits

Budget Summary and Justification

The Tiger Field Demonstration Project will leverage artificial turf installation costs with the completion of another capital improvement at the facility, specifically the replacement of the antiquated lighting system. The combination of these two projects provides an economics of scale to the benefit of both project budgets, and will ensure that both these elements – all-weather artificial turf and energy efficient field lighting – that are critical to the success of the facility are completed in a compatible, cost-effective manner.

As illustrated on Table C-1, DWR funds have been restricted to the costs related to the installation of artificial turf. The City will cover all administrative costs and permitting costs related to both projects in addition to all costs related to the field lighting project. Based on our budgeted estimates, the requested $686,260 DWR grant will be funding approximately 58 percent of the overall project.

Our estimates have been computed using the real costs incurred with the construction of the Redding Sports Complex (completed in 2004) and are updated to reflect current construction costs.

Potential Benefits/Anticipated Information Gained vs. Anticipated Costs

Due to the exceptionally low cost of water in the City of Redding, the dollar value of the commodity cost water savings predicted from this project are markedly lower than they would be in other communities. In Redding water is charged at the rate of $0.75 per 100 cubic feet (748 gallons). Since Tiger Field uses an estimated 324,386 gallons of irrigation water annually, the annual commodity cost works out to $325.25. Saving 259,509 gallons a year at Tiger Field only works out to a commodity cost cash benefit of $260.20. Assuming the increased field capacity eliminates the need for two other grass fields – another $650.50 gain – the total water savings as a cash benefit from this conversion in Redding only reaches $910.70 per year.

It is anticipated that annual field personnel and maintenance savings of at least $16,100 will be realized through the field conversion, which increases to a $49,000 gain annually with the extra field capacity eliminating the need for two other grass fields. Potential new revenue streams generated from increased field use might also provide a positive return after deducting the portion necessary to cover the additional Recreation Division expenditures to program and operate the facility (i.e. lighting and staff costs). Factoring all these elements together, the total cost savings/cost prevention experienced in Redding should be in the range of $50,000 to $60,000 annually.

There are additional benefits that exceed quantification in pure dollar terms:

- Water Conservation – Reducing the net amount of water that is consumed by our community benefits our local utilities as well as other communities in the Bay-Delta region. Demonstrating that communities can achieve these types of water usage reductions and still provide quality recreation facilities is the single most important goal of this project.
- Developing an Assessment Methodology – Developing an exacting methodology to quantify and confirm the actual volume of irrigation water that can be saved through the use of artificial turf, in addition to proving other cost savings, will provide certainties to other communities that are considering similar projects.

- Increasing Facility Capacity Load and Lowering Ongoing Costs – Demonstrating that a lighted, artificial turf facility can meet the service demands of three regular natural grass fields at an overall lower cost will have tremendous applicability to many jurisdictions and private entities faced with the challenge of delivering quality recreation facilities and programs in an era of rising costs.
- Field Consolidation and/or Forestalling New Field Construction – Proving the greater capacity load for a lighted, artificial turf field will provide other jurisdictions with the option of consolidating current natural grass fields (realizing additional immediate water usage and cost savings) or forestalling construction of new fields (delaying the assumption of new water usage and costs).
- Redding Community Benefits – The improvements to Tiger Field will add to the revitalization of the Parkview neighborhood and provide additional recreation resources for the enjoyment of Redding residents, bringing our level-of-service closer to the desired delivery levels.

The intent of the Tiger Field Demonstration Project is to prove out these assumptions, realize real reductions in water usage, and serve as a model project for other California communities. We look forward to the opportunity to partner with the Department of Water Resources in the achievement of these goals.

Applicant: City of Redding

THE TABLES ARE FORMATTED WITH FORMULAS: FILL IN THE 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) in Dollars)

	Category (I)	Project Costs $ (II)	Contingency % (ex. 5 or 10) (III)	Project Cost + Contingency $ (IV)	Applicant Share $ (V)	State Share Grant $ (VI)	Life of investment (years) (VII	Capital Recovery Factor (VIII)	Annualized Costs $ (IX)
	Administration[1]								
	Salaries, wages	$25,000	0	$25,000	$25,000	$0	0	0.0000	$0
	Fringe benefits	$0	0	$0	$0	$0	0	0.0000	$0
	Supplies	$0	0	$0	$0	$0	0	0.0000	$0
	Equipment	$0	0	$0	$0	$0	0	0.0000	$0
	Consulting services	$0	0	$0	$0	$0	0	0.0000	$0
	Travel	$0	0	$0	$0	$0	0	0.0000	$0
	Other	$0	0	$0	$0	$0	0	0.0000	$0
(a)	Total Administration Costs	$25,000		$25,000	$25,000	$0			$0
(b)	Planning/Design/Engineering	$100,500	10	$110,550	$24,000	$86,550	0	0.0000	$0
(c)	Equipment Purchases/Rentals/Rebates/Vouchers	$25,000	10	$27,500	$25,000	$2,500	10	0.0000	$0
(d)	Materials/Installation/Implementation	$30,600	10	$33,660	$0	$33,660	0	0.0000	$0
(e)	Implementation Verification	$0	0	$0	$0	$0	0	0.0000	$0
(f)	Project Legal/License Fees	$8,000	0	$8,000	$8,000	$0	0	0.0000	$0
(g)	Structures	$375,000	10	$412,500	$412,500	$0	0	0.0000	$0
(h)	Land Purchase/Easement	$0	0	$0	$0	$0	0	0.0000	$0
(i)	Environmental Compliance/Mitigation/Enhancement	$2,000	0	$2,000	$0	$2,000	0	0.0000	$0
(j)	Construction	$510,000	10	$561,000	$0	$561,000	0	0.0000	$0
(k)	Other (Specify)	$0	0	$0	$0	$0	0	0.0000	$0
(l)	Monitoring and Assessment	$3,000	10	$3,300	$3,000	$300	0	0.0000	$0
(m)	Report Preparation	$2,500	10	$2,750	$2,500	$250	0	0.0000	$0
(n)	**TOTAL**	$1,081,600		$1,186,260	$500,000	$686,260			$0
(o)	Cost Share -Percentage				42	58			

1- excludes administration O&M.