Selection Panel (Primary) Review

− ***Fund*** (a proposal recommended for funding at the amount sought or funding in part of selected project tasks or subtasks)

− ***Reconsider if Revised*** (a proposal that is a high priority but that requires some revision followed by additional review prior to being recommended for funding)

X Not Recommended

Amount Sought: $90,072

Fund This Amount: $***0***

Conditions recommended (Conditions that applicants would need to meet to obtain funds may be recommended for proposals suggested for either full or partial funding. For proposals recommended for partial funding, conditions that identify the funded tasks or subtasks must be recommended.)

Please provide a brief explanation of your rating, including an explanation of the reasons for any conditions that the panel recommends. Revisions required of proposals recommended for reconsideration should be outlined, together with a justification for the suggested revisions:

This proposal basically does not meet qualifications for this monitoring PSP. It does not actually monitor restoration action responses, but simply counts fish. While this is important and valuable data to have collected and is necessary for fishery agency managers, such monitoring does not meet the specifications of this particular PSP. Commenters noted this would fit well within a comprehensive monitoring strategy for salmonids. Funding through this PSP would be a stop−gap measure, but would not reflect the effects of specific restoration actions.

Overall concern was expressed by most of the panel that it was important to retain focus on the original goal of this solicitation. If, for example, this proposal is largely for use by the EWA DAT (real time monitoring), then it would be more appropriate to fund through EWA, or by the ERP program as a directed action. In other words, it is what it is (fish counts) and should be funded accordingly. It was noted, however, that there is a disconnect between monitoring information and how to evaluate restoration actions, reinforcing the inappropriateness of funding with this solicitation. It also failed to integrate with other monitoring efforts, again pointing to a need for a comprehensive monitoring strategy.

The panel stressed being responsive to the technical panel review, which rated this proposal as inadequate. Technical panel comments noted a lack of detail regarding accuracy and precision of monitoring methodologies. While this proposal is responsive to informing water management decisions, that is not a link to restoration activities. Instead, this important work needs to be funded through other mechanisms, and such a proposal would be strengthened by consideration and response to the technical panel concerns.

Technical Panel (Primary) Review

inadequate

Explanation Of Summary Rating

The PI's did not do a convincing job of showing that they could produce data that would be valuable for long−term monitoring (see comments in Approach section of review). These problems are what produced the low rating by the Technical Panel.

Review Form

Goals And Justification

This appears to be a straightforward proposal to continue funding for a monitoring station that has collected data on downstream migration of juvenile salmonids and other species for at least 30 years. The main goal of the project is to continue monitoring efforts and the project justification is that these data will be useful in the evaluation of restoration efforts upstream. Although these are worthy goals, there is little in this proposal that tells us how the monitoring data will be used for the evaluation of specific upstream restoration projects. In fact, one can envision a scenario in which the restoration projects actually have a positive impact in a limited area, while habitat quality declines in the remainder of the habitat and therefore overall outmigration declines. In this scenario managers might conclude that restoration efforts were unsuccessful when in fact, just the opposite was true. It is possibilities like these that require a direct linkage between outmigration monitoring and the specific upstream restoration efforts, in order for monitoring data to be useful. This could be accomplished by greater coordination between upstream CALFED projects, because it would require project−specific marking of fishes either via polymer tagging or PIT tags. If this could be done then the trap could be used to assess the impacts of specific restoration projects and also give an indication of mortality between the restoration site and the trap.

Despite the fact that this trap has been in operation for a long time and collects useful information there is little linkage to the “Adaptive Management Paradigm” outlined in the solicitation package. Finally, the Conceptual Model is clearly based on salmonids, whereas data for non−game species and sturgeon populations also are important.

Approach

It would appear that the trapping approach is sufficient, given its years of operation, nonetheless there are many aspects of the methods that are not sufficiently described. For example, there are no hypotheses presented in the proposal, nor is there any description of the accuracy or precision of the estimates derived from the trap. Surprisingly, there are no data presented in the proposal at all, despite the many years of collection. A demonstration that the data were at least capable of showing annual or multi−year changes correlated with some disturbance (drought/floods) or favorable conditions would have gone a long way towards convincing the reviewers that this project should be funded. In addition, some analyses using upstream migrant data taken at Red Bluff and outmigration data from this trap would have demonstrated the ultimate utility of the project to the Technical Panel. There also is no description of data or statistical analysis, how confidence intervals might be calculated, how trap estimates are calibrated, etc. There is no justification for sample sizes or the differential between sample sizes for salmonid and non−salmonid fishes. It is unclear whether sampling will be conducted at the same time each day to control for diel behavioral rhythms. In conclusion, although there is no doubt that the trap should continue operation, based on the approach described in the proposal it is unlikely that these data will be useful in assessing the impacts of upstream restoration projects.

Feasibility And Likelihood Of Success

The project is feasible in that estimates of juvenile downstream migration for a variety of important fishes can be obtained.

Performance Measures

See previous comments −− there is little information on how specific performance attributes will be measured. The attitude seems to be "the trap catches fish, therefore it works", but this is not a very scientific attitude. There are many ways that trap performance could be evaluated, not to mention how relative abundance estimates will be used to evaluate aforementioned restoration techniques. Precision, accuracy, confidence intervals, calibration over time all are specific performance measures that should be undertaken.

Products

As far as we can tell, raw data are the only product of the project and it is up to other agencies to "interpret" or use these data. Several external technical reviewers noted the lack of description of how data were to be treated in the proposal. Some external technical referees also asked for greater public access to the data, perhaps via an already existing website. Finally, everyone agrees that the data product (i.e., long−term population monitoring

data) is useful, but not well linked to Calfed objectives.

Capabilities

Capability of catching fish is high, capability of handling data in a meaningful way is uncertain.

Budget

Quite reasonable.

Regional Review

The regional review is glowing (overall rating is high) but the Regional Panel identified few of the substantive problems identified by the Technical Panel and external technical reviewers. The Regional Panel focused on the need to continue monitoring but did not critically evaluate how the proposal would specifically address Calfed objectives within an adaptive management framework. Everyone agrees that the data should be collected, the external technical reviewers have correctly assessed that without greater linkage to specific restoration projects there is a low probability that the data can be used to assess outcomes.

Administrative Review

Little information provided other than concerns that the PI's have not obtained the permit that they will need to do the work.

Additional Comments

Technical Review Panel's Overall Evaluation Rating:
inadequate

Sacramento Regional Review

High

Review:

1. ***Applicability to ERP goals and regional priorities.***

This research project will help to monitor and evaluate all CALFED ERP and CVPIA restoration actions in the upper Sacramento River and all tributaries above the sampling site (at the Tehama – Glen County line) by monitoring annular and cyclic juvenile population changes and baseline data for recovery/restoration and management of all upper Sacramento River anadromous fish populations, including green sturgeon.

The project directly addresses ERP Draft Stage 1 Implementation Plan and Ecosystem Restoration Plan, Goal 1, Recovery of At−risk Species. Additionally, specific applications of the CALFED Science Program Goals included in the Draft Stage 1 Implementation Plan are addressed to include: adaptive management, monitoring, interdisciplinary knowledge of critical unknowns, improving scientific basis of water management, and broad communication of scientific knowledge and scientific activities. WRCS, SRCS, steelhead, and green sturgeon are among species designated “R” in the Multi−Species Conservation Strategy (MSCS) which establishes a goal to recover those species within the CALFED ERPP ecological management zones. This project provides baseline population metrics addressing MSCS conservation measures for those species relative to emigration onset, duration, abundance, size, and racial identification. Various CVPIA AFRP Upper Sacramento River actions and evaluations are also addressed in part to include 1) Action #7, implement structural and operational modifications at GCID diversion, and 2) Evaluation #9, identify entrainment of juvenile sturgeon.

Currently, monitoring data are provided to and utilized by: 1) NOAA Fisheries led Central Valley Technical Recovery Team effort developing status and recovery plans for Central Valley WRCS and SRCS, 2) IEP Delta Operations Group Sacramento River Spring−run Chinook Salmon Protection Plan, and 3) NOAA Fisheries led workgroup developing management goals and recommendations to the Pacific Fishery Management Council for potential amendments to the Pacific Coast Salmon Plan.

2. ***Links with other restoration actions.***

The proposed project will have the capability of assessing the cumulative responses of several related restoration actions and has been well coordinated with other restoration and monitoring activities, including the Interagency Ecological Program and the CVPIA

Comprehensive Assessment and Monitoring Program. The project will continue a juvenile baseline monitoring project at the GCID site that has been consistently conducted since 1991, and which has been variously implemented since the 1920's (CDFG, 1929). This will continue to provide an important benchmark for comparison and evaluation of long−term trends.

Field sampling data are entered into a Microsoft relational database located in the Hamilton City field office located at the GCID sampling site. All data are exported weekly to the IEP server in Sacramento. Once per week, a backup is made of all databases on removable media. The backup is stored at a site remote from the GCID field office. CDFG's project manager will prepare and submit quarterly progress reports. Progress reports will be submitted to CALFED by the 10th day of the month following the end of the quarter. Annual reports will be prepared and submitted by the end of the first quarter of the subsequent year. A project final report will be prepared and submitted.

3. ***Local Circumstances.***

The project is both feasible and appropriate to the project site and there are no local constraints on the project's ability to move forward in a timely and successful manner. With completion of the GCID gradient stabilization and the fish screen upgrade in 2002, the site is now hydraulically and structurally a very effective juvenile trapping/monitoring facility. The site lies below the majority of all upper Sacramento River salmon and steelhead spawning habitat, including WRCS, and two of the SRCS populations, as well as being upstream of the major Sacramento River flood overflow structures (Moulton, Colusa and Tisdale weirs). Due to the site location along the river and the recent hydraulic/structural modifications, sampling costs have also been minimized. Sampling will only be interrupted dependent upon high water, excessive debris, and the potential for injury to personnel or damage to sampling gear.

There are no local legal, political, or cultural impediments to the project. The Glenn Colusa Irrigation District (GCID) owns the property requiring access to accomplish monitoring activities at this site. A Memorandum of Understanding (MOU) between GCID and the California Department of Fish and Game (CDFG) was entered into on June 27, 2000 stating GCID is to provide the office space, shop space, and access to the site to CDFG in exchange for the monitoring performed by CDFG.

4. ***Local involvement.***

Public involvement has been, and will continue to be achieved through CDFG project staff participation in educational and public tours of the GCID fish screen facility and educational workshops. Public outreach will continue with CDFG staff conducting tours for the public and other agencies, attendance of local public and stakeholder meetings, and presentations

made at school classrooms and workshops. CDFG project staff will regularly make presentations at meetings, science conferences, workshops, and educational programs. CDFG project staff participate in and will give regular updates to the Salmon Escapement Project Work Team, the Juvenile Monitoring Project Work Team and the Technical Oversight Committee for the GCID fish screen project and gradient facility. CDFG has created a local partnership with GCID that is likely to endure beyond the term of an ERP grant.

The proposal did not give any further information on the project's public outreach activities or whether they will be sufficient to inform appropriate stakeholders, such as landowners, watershed groups, farm or sportsmen's organizations, effected local governments and special districts, or local news media, about findings from studies in their area.

5. ***Local Value.***

The project's products will have a high value to the restoration of ecosystems in the region. Past monitoring at this site has provided valuable information on priority species, including:

• This monitoring site was the first to document WRCS migration as fry starting as early as mid−July.

• WRCS migration usually peaks the end of September and ends in April.

• SRCS migration starts November/December, usually peaks in April and ends in May.

• Steelhead are generally present all months of the year.

• Green sturgeon (Acipenser medirostris) juveniles usually appear in May and continue as late as November.

• Sacramento splittail (Pogonichthys macrolepidotus) are seen at this site April through June.

• American shad (Alosa sapidissima) are captured from May through January.

• Lamprey (Lampetra spp) are usually present all months of the year.

The project also provides important monitoring of the GCID pumping facility and the efficacy of the new screening structure. This is important to local interests in that it helps to insure local water supplies are able to be delivered by the pumping facility. Similarly, the migration timing and abundance data collected by this project are heavily relied upon in making important water management decisions in the lower river and the Delta that are designed to protect listed species and aid in their recovery.

6. ***Other comments:***

Overall Ranking:
High

Provide a brief summary explanation of the committee's ranking:

The panel rated this proposal as high. The project has shown good coordination with IEP and CAMP and good data dispersal. It indirectly monitors cumulative responses of “big R” salmonid species to several upstream restoration actions in high priority ecosystems.

There are no apparent local implementation concerns and seems to have adequate public outreach and involvement.

The longevity of this project is key in that it would continue a long running data source. This monitoring technique reveals long term trends in relative abundance of juvenile fish but the single trap is not sufficient to provide absolute abundance estimates.

External Technical Review

Goals And Justification

Yes, the proposal identifies the restoration involved (i.e. winter and spring run Chinook in the Sacremento R,as well as the potential for other species such as sturgeon). Basically, this proposal seeks relatively minor funding to provide labor to assist in running a fish monitoring station focusing on juvenile salmonids for three years. The proposal is a very general one that is built upon the premise of the value of simple monitoring of numbers, etc of juvenile downrunning salmonids. The project is an extension of a long−term monitoring project. I fully support that monitoring program that is proposed, however, it is not always immediately clear how the funding requested for this proposal will contribute beyond simply keeping the station/data collection running. The idea is that this facility will generate basic data which will then be available for other agencies, etc., to make use of as they pursue the basinwide restoration on salmonine fishes. The proposal does make clear the importance of both the site to be used (i.e. in an appropriate spot relative to spawning grounds etc) and the strains/stages of fish to be monitored. There is no specific hypothesis that the project seeks to address, nor is any immediate issue specificially referred to in the proposal beyond the well−known and broad scale restoration of salmonids to this drainage.

Approach

The approach is good for the monitoring proposed in this project. It appears to be an efficient facility (though more specifics on the facility, its effectiveness, etc would have helped this reviewer). The project is closely linked to the long−term monitoring that has gone on at this site for many years. Yes, I think the contributions from this facility are significant to the decision−makers in the region. What is somewhat unclear is how this specific proposal, as distinct from others supporting the facility and from general agency support, will contribute in the long−term. The facility is extremely useful, but the proposal could have made a better case for why it is seeking funding NOW and how, if received, it will have immediate effects on the knowledge base. Overall, however, the long−term monitoring proposed is crucial for the understanding of how management decisions are reflected in juvenile survivorship and, ultimately, adult recruitment. Without this type of long−term data set, it is extremely difficult to differentiate between annual variability and discinct alterations in population dynamics.

Technical Feasibility

This is somewhat difficult to tell as an outside reviewer since there was little information on the facility included, however, generally the approach seems reasonable. There is clearly additional funding going to this facility to assist in its operations and the facility itself is

appropriate. The 24−7 operational paradigm is critical and strong.

Performance Measures

Yes, the indexing of numbers of juvenile salmonids passing through the facility will provide direct evidence for the effectiveness of restoration actions. There is no clear link discussed between the collection of the data and further modification of management decisions, however, there is a discussion of how the data will be made available to decision makers. I would like to have sen some discussion of evaluation of the facility to ground truth the accuracy of the data collected.

Products

This project will lead to data that is both submitted directly to electronic databases and also to agency reports. The method of data release is clear and seems timely. Resource managers should have easy access to the data collected. Yes, the data are likely to be rigorous (though, again, some discussion of quality control would be appropriate), although much of this depends on the labor to be hired and the training of those laborers. However, the data collected are straightforward and relatively uncomplicated.

Capabilities

Yes, the CDFG has all the necessary skills and qualifications to complete this project.

Budget

Yes, the budget is reasonable. It is a modest budget for a three year proposal and works out to funding a technician for about 4 hours per day. This is a reasonable amount of time to complete the work described.

Additional Comments

This is precisely the type of monitoring effort that I believe should be supported and funded. I would have liked to have seen a stronger proposal, however, outlining how the data generated by this funding cycle will be used. Also, the proposal would have been stronger if it had included previously collected data from this site showing the effectiveness of the method and program and its link to restoration decisions. Also, some discussion of why the CDFG is seeking funding at this time for this project and how this project dovetails in with other work at the facility would have been instructive for review. Finally, I would like to encourage the project, if funded, to consider a more hypothesis driven approach that would lead to data

generation that could be published under peer−review, in addition to the simple collection of background data that is submitted under agency reporting systems.

External Technical Review

Goals And Justification

The objectives outlined in this proposal are to understand short− and long−term population changes in important native fisheries by using rotary screw trap monitoring data. The proposal alludes to monitoring the outcomes of several restoration actions, such as the Glenn−Colusa Irrigation District (hereafter GCID) gradient stabilization, fish screen upgrades, and Delta operations. While the proposal does note that the goals of all restoration projects are to help recover at−risk native species, it does not clearly state the specific goals of the individual restoration projects. The proposal could have been improved by specifically identifying how the monitoring will improve understanding of restoration actions. For instance, if the goal is to monitor the effectiveness of the fish screen upgrades, then monitoring should be designed to address whether screens are adequately excluding juveniles and reducing exposure time and/or mortalities. In addition, comparing pre− and post−restoration actions would also be useful in this type of monitoring project, but this was not identified as an objective. The simplified conceptual model presented is clear, but potentially overlooks some key aspects of how restoration actions would affect life history stages of many anadromous Central Valley fish populations. As an example, it seemed odd that in Figure 2, instream flows were identified as important for spawning adults, but not important for eggs or emergent fry. Knowing that dewatering of salmon redds has been an issue in the past, it seems unclear why instream flows were not considered important for eggs or emergent fry. In addition, the proposal initially discusses all at−risk native species, but then the conceptual model includes only the anadromous fish life history. The model also only describes life histories and where restoration actions can be implemented, it does not have any explanation for why restoration actions might be necessary, nor does it include any predictors, nor possible outcomes resulting from restoration activities. There is no doubt that consistently collecting size class and abundance data can be an important tool for understanding fish population trends over the short− and long−term. However this idea was not described adequately in the space of the proposal. The lack of clear, individual hypotheses was also apparent. The proposal would have been improved by identifying a clear hypothesis and elaborating how rotary trap data can be analyzed and translated into deeper understanding of population trends.

Approach

The approach is consistent with prior years of monitoring juveniles at the GCID and seems well suited for standard, long−term monitoring of population dynamics. The approach may not be well−designed for short−term population trends resulting from restoration actions. This is largely due to the fact that the proposal doesn’t specify how the data collected will be

analyzed. If the data was compared to data collected prior to restoration actions then it could be useful in evaluating correlations between possible increases in juveniles and restoration actions. Alternatively, if the monitoring was designed to specifically address the hypothesis that restoration actions contribute to increased numbers of outmigrating juveniles then it could meet the objective of shedding light on short−term population trends. However, the proposal described here does not adequately address this second objective in either of the above mentioned ways. Other than improved equipment operation, the proposal does not appear to build on previous work, rather it seeks primarily to continue past monitoring efforts. As mentioned previously, it is possible that the monitoring data could build on previous work by contributing to understanding of implications from restoration actions, but this is not specifically stated in the proposal. Additionally, the proposal notes that performance testing of some restoration actions has already been funded through other sources, so it is even less clear what this proposal will do to improve understanding of short−term population trend changes resulting from restoration actions. While the work would not enhance our understanding of how restoration actions translate into recovering at risk populations of native fish, the work would be of value for increasing our understanding of population dynamics, due to the consistent, long−term data collected by California Department of Fish and Game (CDFG) over the years. Past years monitoring efforts have shed light on migration timing, and additional monitoring could supplement that information by uncovering peak timing of important fisheries such as peak timing of green sturgeon migration or Sacramento splittail. Understanding migration timing could be important for resource managers and water districts managers attempting to reconcile the needs of water users with the goals of protecting and enhancing fishery resources. Extrapolating to the entire population in the Central Valley would not be possible, but combined with data from other regions in the Valley, this work could be extremely helpful in understanding the entire population.

Technical Feasibility

As the project is a continuation of past monitoring efforts it is fully documented and technically feasible. The scale of the project is consistent with the objectives of monitoring long−term population dynamics at this site. The scale could also work for the short−term monitoring objectives, but as this part of the project was less clearly defined it is difficult to know with certainty how effective the scale would be for the short term objectives.

Performance Measures

As mentioned previously, the monitoring data could be used to evaluate restoration actions, but the proposal does not explicitly say how the data would be used to accomplish this task. Performance measures were not proposed to evaluate restoration actions. The proposal also does not specify how data will enhance or contribute to the conceptual model. The

monitoring plan is explicit in that it details exactly what the monitoring actions will include, however the proposal does not relate how the monitoring data will be used to make any conclusions regarding restoration actions.

Products

The proposal outlines four products that will result from funding of this monitoring project. Three of these products have direct benefits for resource managers, scientists, and California citizens. Beneficial products include, annual reports, a final report, and outreach/education efforts. Previous data from this monitoring effort has already enhanced understanding of migration timing for at−risk fish populations. Additional understanding of migration, population size structure and trends can be extremely important for resource managers attempting to manage and recover fragile populations. Allowing public access to the information (via Bay Delta and Tributaries Project [BDAT] website), will also be extremely valuable for water district managers who have to make tough decisions about where and when to allocate water resources for maximum fish protection while serving the rest of their water user community. It should be noted though that, within the proposal, there is no explicit mention of public access to the data via BDAT. The data may not stand up to a critical peer review process for any conclusions drawn regarding short−term restoration actions, largely because the proposal does not explain how the data will be used for this purpose.

Capabilities

The project team has abundant past experience managing the exact monitoring project. Thus the team appears well qualified to perform and complete the project monitoring. However as the proposal is currently written, it is difficult to tell whether the project team is capable of drawing conclusions from the data and enhancing our understanding of population trends and changes over time. The past report summarizing previous data is unpublished and the proposal does not outline any statistical methods for data analysis. Therefore, it is difficult to determine whether the project team has the ability to confidently make use of data from this monitoring effort. However, the proposal comes from CDFG employees and project participants have worked for several years on a multitude of restoration and recovery teams for California fisheries, so it is very possible that the project team has the skills, but just did not communicate their abilities effectively in the proposal outline.

Budget

The budget seems reasonable and adequate for the work proposed. Overall it appears to be a good value for the amount of work proposed to be accomplished. The following two areas could cause concern. 1) The proposal only requests 4.26 hours/day for scientific aid help. It seemed odd that the project would require only 4.26 hours of work per day, given the nature

of field work involving boats, checking traps, live animals, travel time and data entry objectives. However, since the project has continued on for many years, it can be assumed that CDFG author has a realistic idea of how many labor hours are required. 2) There is no cost of living increase or increase in pay for the entire 3 year project period. Cost of living, benefits, or increase in pay is often possible for a three−year time period. Unforseen rises in any of these could put project finances in jeopardy later. Particularly compelling though is that CDFG will carry a large portion of the cost share, making this project fairly reasonable for the amount of quality data that will be obtained.

Additional Comments

Given the importance of long−term monitoring, this project could be a good value for a relatively low cost, if the analysis were accomplished adequately. Overall, this could be an excellent project, but the proposal itself fails to highlight some of the exciting aspects of how the monitoring will evaluate restoration actions, increase our understanding of restoration ecology and enhance depauperate native fish populations. The project outline could be improved by, 1) outlining the plan for statistical analysis, 2) explicitly noting how the data will be disseminated after monitoring (i.e. web access via BDAT), 3) stating a clear hypothesis, 4) comparing monitoring data before and after restoration actions, 5) explaining how the data will be used to understand population trends, and 6) alluding to why monitoring size structure is important to the proposed objectives.

External Technical Review

Goals And Justification

Yes. Populations are federally−listed and in decline. Multiple restoation actions require monitoring and evaluation. Operation of screens require effectiveness monitoring. Tracking populations and conducting stock assessments are fundamental parts of these efforts. Adult escapement and juvenile emigration are key life phases that must be tracked.

Approach

Yes. The approach is proven and well−designed. The project is a continuation of long−term monitoring.

Subsampling the first x fish captured each day could be problemmatic. It is extremely difficult to avoid inadvertent bias when fish are netted from holding boxes. Also, does the size of subsamples allow for statistical comparison among sub−classes?

The proposal does not state explicitly whether estimates of total periodic juvenile outmigration numbers are achieved. No mark−recapture or area sampling component is listed. How are catches expanded to total migration estimates?

Technical Feasibility

Yes. The technology is sound and simple to operate. The project must run year round in order to document multiple species migration timing. The proposal provides very little detail of the technical aspects of the project. It does not describe the facilities in detail, aside from a general description of the site and the trap. However, the proposal states the screw trap structure has been in operation year−round on the site since 1991 and was upgraded in 2002. The site has been used for monitoring since the 1970’s. Separate projects evaluate the effectiveness of the fish screens at the site. This speaks to a great deal of institutional energy focused over a long period on capturing and sampling fish.

I am familiar with screw traps for downstream migrant salmonids. My general comment of technical feasibility is therefore based on the assumption that the trapping facilities are similar to devices I have experience with and that a long−term facility such as this has strongly proven its effectiveness. The methods applied must have proven to be effective at capturing live downstream migrants in numbers sufficient to provide the sample sizes desired in a manner which represents the targeted population stock assessment parameters. I can't say much else specific about these aspects of the proposal without further detailed methodology.

The proposal states that monitoring at the diversion site helped to identify need for restoration projects based on information regarding “onset and duration of migration times, size(s) at migration, racial composition, relative abundance, and population trends.” Again, without detailed description of the quantitative aspects of the project, I have to assume that the indices provided by the monitoring over the years is of sufficient quality to be considered important factors in the decision process to date and, if continued, will help in evaluation of restoration program effectiveness.

Performance Measures

Periodic performance reports are specified but little detail on reporting is provided. The study is a longer−term monitoring effort. If measures are quantifiable and can be statistically compared at fine scales spatially and temporally and among populations, then the data do allow evaluation of restoration actions. The baseline time series is short, though, in terms of target species life cycles. Drawing firm conclusions of short−term effectiveness of restoration efforts will be difficult using singular metrics such as relative abundance. The juvenile monitoring must be conducted and evaluated in conjunction with other stock assessment studies in order to conclude that shifts and trends are linked to changes in productivity resulting from restoration efforts.

The performance measures are specifically listed, as mentioned above. The rationale for the performance measures is clearly demonstrated. The proposal states that the site is appropriate for monitoring downstream migrants from and to key habitats. The measures provide indicators of migration timing and relative abundance, comparable within and among years, helping to demonstrate the effectiveness of restoration efforts. The data and measures are a key component of the GCID conceptual model linking salmon life phases to key geographic areas and restoration projects and actions. The proposal states the monitoring is a component of the IEP Chinook Salmon Protection Plan and that data are entered into the IEP database and exported weekly for agency use. The proposal is not explicit regarding how agencies use the data. I cannot answer this question except to the extent that agency endorsement and utility are implicit in the integration of the data to the central database.

Products

The project provides an essential component to performance evaluation of restoration actions. Baseline population parameters carried over a number of life cycles before and after actions are implemented are needed. The project will lead to information that is useful to resource managers, other decision makers, and/or scientists. This question is answered fully in the Performance Measures section above. The data are entered in a central database and distributed weekly, quarterly and annually to agencies. Weekly and quarterly distribution provide for both in−season and post−season analyses. If sampling is consistent within and

among years, if estimates are fine scale (weekly independent estimates, for example), if estimates can be compared statistically, and if the data are used appropriately to meet the stated goals, then the results should stand up under peer review.

Capabilities

Yes. The investigators appear experienced and competent. CDFG fisheries staff can be assumed to have commensurate qualifications. Oversight by CDFG senior staff and experience of the principal investigator and project leader are appropriate.

Budget

Yes. The budget appears modest, particularly when compared to private industry rates. All components required to operate the project are accounted for.

Additional Comments

Budget Review

1. Does the proposal include a detailed budget for each year of the requested support?
Yes.

If no, please explain:

Comments: 1. No budget $ are allocated to proj mgmt

2. Does the proposal include a detailed budget for each task identified?
No.

If no, please explain:

No applicant does not provide proj mgmt costs

3. Are project management expenses appropriately budgeted?
No.

If no, please explain:

Same comment as Ques #2

4. Does the proposal clearly state the type of expenses encompassed in indirect rates or overhead costs? Are indirect rates, if used, appropriately applied?
Yes.

If no, please explain:

Comments: 1. 32.03% of salary &benefits combined

If proposal is funded, a detailed list of items included in the indirect cost rate should provided by the grantee. Grantee must provide itemized and detailed information included and charged as part of Indirect Rates (IDC) charges.

Note: No overhead or indirect rate charges on the equipment purchases should be allowed as part of the budget that shall be funded as a result of this PSP.

5. Does the budget justification adequately explain major expenses? Are the labor rates and other charges proposed reasonable in relation to current state rates?
Yes.

If no, please explain:

There are no major expenses shown on budget

6. Are other agencies contributing or likely to contribute a share of the projects costs?
No.

If yes, when sufficient information is available, please sum the amount of matching funds likely to be provided:

7. Does the applicant take exception to the standard grant agreement's terms and conditions? If yes, are the approaches the applicant proposes to address these issues a reasonable starting point for negotiating a grant agreement?
Yes.

If no, please explain:

Applicant agrees to T's

8. Are there other budget issues that warrant consideration?
No.

If yes, please explain:

Comments: Need detail info

Budget Detail/Administrative Overhead Fees – Budget detail combines the labor rates with the direct overhead rate. The labor rate, benefits and indirect rate should be itemized in the format provided by the PSP to enable reviewers to better evaluate and ensure that proposed labor rates are comparable to state rates.

If proposal is funded, a detailed list of items included in the indirect cost rate should provided by the grantee. Grantee must provide itemized and detailed information included and charged

as part of Indirect Rates (IDC) charges.

Task and Deliverables – Grantee must provide detailed information for all work including subcontractor work for each specific task, services, and work to be performed with the appropriate and corresponding deliverable or end product for each task(s) and/or sub−task(s). Costs associated with each task and deliverable should be evaluated based on what is considered to be reasonable costs for performing similar services.

Other comments:

SUPPLEMENTAL COMMENTS: 1. Proposal will need re−work to covert to SOW/agreement 2. Need more detailed info for deliverables − too general 3. Need to tie scope &deliverable

END OF REVIEW

Environmental Compliance Review

1. Is compliance with California Environmental Quality Act (CEQA) required for this project?
YES− NO***X***

2. Is compliance with National Environmental Policy Act (NEPA) required for this project?
YES− NO***X***

3. Does this project qualify for an Exemption or Exclusion under CEQA and NEPA, respectively?
YES− NO− N/A***X***
Comments:

4. Did the applicant correctly identify if CEQA/NEPA compliance was required?
YES***X*** NO−
Comments:

5. Did the applicant correctly identify the correct CEQA/NEPA document required for the project?
YES− NO− N/A***X***
Comments:

6. Has the CEQA/NEPA document been completed?
YES− NO− N/A***X***

7. If the document has not been completed, did the applicant allot enough time to complete the document before the project start date?
YES− NO− N/A***X***

8. If the document has not been completed, did the applicant allot enough funds to complete it?
YES− NO− N/A***X***
Comments:

9. Did the applicant adequately identify other legal or regulatory compliance issues (Incidental Take permits, Scientific Collecting permits, etc,) that may affect the project?
YES***X*** NO− N/A−
Comments:

The applicant states they applied for a Section 10 permit in October 2003 but it does not state they have received the permit. The applicant must have the permit before starting monitoring.

Identify those additional permits that may be needed by this project:

10. Does the proposal include written permission from the owners of any private property on which project activities are proposed or, if specific locations for project activities are not yet determined, is it likely that permission for access can be obtained?
YES***X*** NO− Project is on public land/water or question is otherwise N/A−
Comments:

The applicant states they have permission through an MOU between CDFG and GCID but it was not attached to the proposal.

11. Do any of these issues affect the project's feasibility due to significant deficiencies in planning and/or budgeting for legal and regulatory compliance or access to property?
YES− NO***X***
Comments: