Instructions for Providing Input in Tables

Two tables are provided here, so please be sure to provide input in the appropriate table:

- Table 1: Solutions Already Implemented on current/ongoing projects
- Table 2: Additional Solutions for Future (or Ongoing) Projects

Instructions for each table are included in the header on each page. Note that input is requested in the following ways:

1. Define **Priority** for your entity for each issue. Either define "high" or "low" for each item, or only define which items you consider to be high priority.

2. Insert **Comments** next to each solution, and track changes for any suggested modifications to solutions listed in table.

CPUC NESTING BIRD WORKSHOP

SUMMARY OF POTENTIAL SOLUTIONS PRESENTED AT 8/30/12 WORKSHOP

INSTRUCTIONS: Table 1 (Solutions Already Implemented) -

Write in "**Notes**" column your entity's comments as to whether this solution should continue to be used. If it should be modified, explain how, or use tracking to modify text in the Solutions column.. Under "**Priority**" write "**High**" or "**Low**" for each item

This Documented Completed by: YOUR ENTITY'S NAME HERE

Priority	Table 1: Solutions Already Implemented	Comment Source	Implementing Entities	Notes: Continue to use? Modify? Explain.
	APPLICANT PROPOSED MEASURES			
High	Continue to use APMs to address bird nesting issues	CPUC	Utilities	• Countinue to Modify. APMs can be inventive and allows for creative solutions in certain instances. However, APMs should be vetted with the Agencies before the CEQA/NEPA process to make sure they are agreeable to the agencies responsible for the resources they address. Vetting early in the process can assure the AMPs in the draft document become the MMs in the final documents. Perhaps standard MMs and APMs can be offered for consideration with an explanation of why the APM better fits the biology of the resources.
	MITIGATION MEASURES			

INSTRUCTIONS: Table 1 (Solutions Already Implemented) -

Write in "**Notes**" column your entity's comments as to whether this solution should continue to be used. If it should be modified, explain how, or use tracking to modify text in the Solutions column.. Under "**Priority**" write "**High**" or "**Low**" for each item

High	Prepare detailed, standardized MMs which may be augmented by supplemental or agency approved alternative APMs, as necessary, incorporating "lessons learned" from previous projects	CPUC	CPUC or CPUC/ NEPA lead agencies	• CPUC or CPUC/NEPA joint agencies apply to future environmental documents for transmission projects • Continue to Modify. We certainly need an "adaptive management" approach to constructing appropriate MMs for projects; We need to draft suitable MMs that are consistant with current regulations.
High	Make MM components consistent with CA Fish & Game Code	CPUC	DFG"	• Continue/modify. DFG should work with CPUC and other CEQA lead agencies to ensure consistent language to include in MMs that avoid legal and operational conflicts with DFG code which can be implemented by the applicant.

INSTRUCTIONS: Table 1 (Solutions Already Implemented) -

Write in "**Notes**" column your entity's comments as to whether this solution should continue to be used. If it should be modified, explain how, or use tracking to modify text in the Solutions column.. Under "**Priority**" write "**High**" or "**Low**" for each item

High:	Provide detail on survey requirements and more flexibility with buffer requirements in MMs	CPUC	"	• Modify. Flexibility in the buffer requirements should be born through the biology. • Modify. CEQA/NEPA documents should include a more realistic evaluation of impacts to nesting birds if buffers are going to be reduced to below the "fully protective" distances proposed in most documents. In addition, mitigation should be considered when construction is anticipated through the breeding season, and impacts to nesting birds are determined to be significant.
high	Continue existing avoidance and minimization measures	DFG	"	• Continue to improve measures. There is definitely room for improvement, in implementing these measures. • We need more accurate data and more defensible buffers distances to begin to understand the true measure of protective buffers for individual species.
	NESTING BIRD MANAGEMENT PLANS			

INSTRUCTIONS: Table 1 (Solutions Already Implemented) -

Write in "**Notes**" column your entity's comments as to whether this solution should continue to be used. If it should be modified, explain how, or use tracking to modify text in the Solutions column.. Under "**Priority**" write "**High**" or "**Low**" for each item

High	Continue to use NBMPs and improve them based on lessons learned during construction	ALL	Utilities	• Utilities prepare plan; agencies review and approve • Continue. We need to come up with a better model or template for the Nesting Bird Plans that addresses all the applicants and agencies needs.
	PRIOR TO CONSTRUCTION - PLANNING			
High	Plan construction activities in the off season (non-breeding season) to extent feasible	CPUC & FWS	Utilities	• Continue. However, too often permitting and ground breaking are not timed in such a way to allow this.
	Conduct eagle surveys in accordance with approved protocol	BLM	Utilities/USFWS/DFG	• Provide better guidance on protocols for linear projects.
	DURING CONSTRUCTION			
	Continue using effective nesting deterrents:	ALL	Utilities	• See comments below
High	1. Remove vegetation in active construction areas prior to nesting season (i.e., during non-breeding season)	Utilities & FWS	"	• Continue. This measure is critical to minimizing impacts to nesting birds. Also provide guidance on vegetation management during the breeding season to avoid impacts.
Low	2. Maintain vegetation-free construction areas to discourage bird use	FWS	"	• Modify. Although vegetation free construction areas are important, we need to make sure they are limited the construction and/or staging areas to a necessary size to reduce overall impacts.

INSTRUCTIONS: Table 1 (Solutions Already Implemented) -

Write in "**Notes**" column your entity's comments as to whether this solution should continue to be used. If it should be modified, explain how, or use tracking to modify text in the Solutions column.. Under "**Priority**" write "**High**" or "**Low**" for each item

High	3. Cover equipment, materials, pipe ends, cavities, and other potential nesting sites with netting (and properly maintaining netting)	CPUC/ FWS	"	• Continue. However, maintenance of the netting is typically an issue. We need to continue to get feedback from their use as to date. it's not clear what the impacts are to birds and non bird species getting caught in the deterrents. A summary of past projects would be important.
	4. Cover straw wattles to prevent birds from using straw as nesting material	CPUC	"	• There are alternative rolls, available. (e.g. "PIG products").
high	5. Remove nest material for nests under construction	FWS	"	• Modify. Removal of nests under construction may be consistent with MBTA, but it is not consistent with DFG code. We need to come up with better avoidance measures or protocols to address this on going issue. • Continue to work on changes to the regulations.

INSTRUCTIONS: Table 1 (Solutions Already Implemented) -

Write in "**Notes**" column your entity's comments as to whether this solution should continue to be used. If it should be modified, explain how, or use tracking to modify text in the Solutions column.. Under "**Priority**" write "**High**" or "**Low**" for each item

High	6. Place deterrents in locations where birds continually build nests (NB: deterrents placed inside nests would require MBTA permit)	FWS	"	• Continue. If there are areas where there will be known nesting conflicts, the construction should either avoid that area during nesting season altogether or anticipate their presence and deter as appropriate. As a simple example, I think of excluding a bridge spanning a body of water for swallows. • Need to consider the application of nest deterrents in raptor nests. This issue has come up and we have yet to come to a decision on what is best for the species.
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CPUC NESTING BIRD WORKSHOP
SUMMARY OF POTENTIAL SOLUTIONS TO BE DISCUSSED AT 8/30/12 WORKSHOP
U.S.D.A. FOREST SERVICE – ADDENDUM

Priority	TABLE 2: Add'l Solutions for FUTURE Projects	Comment Source	Implementing Entities	Notes: Use this solution? Modify? Explain.
	APPLICANT PROPOSED MEASURES			
High	Prepare detailed, robust APMs that: 1. Provide sufficient information so that environmental review can determine whether impacts would less than significant (details include: e.g., specified buffer distances, survey timing, seasons when nest avoidance is required, monitoring procedures, and verification procedures) 2. Address all bird species covered by MBTA, F&G Code, etc. 3. Do not include actions that violate laws protecting birds 4. Require development and approval of NBMPs	CPUC	Utilities	• See related comment above.
				•
	MITIGATION MEASURES			
Low	Modify or clarify EIR significance criteria for bird nesting issues; ensure that DFG/FWS agree	Utilities (verbal 8/30)	CPUC	• Continue. DFG is willing to work with the Lead Agencies to develop significance criteria for nesting birds. .
Low	Ensure that EIR MMs do not duplicate laws/regs that already apply	Utilities (verbal 8/30)	CPUC	• Its not certain which laws and regulations would be captured within this comment.

HIGH	Provide greater visibility and collaboration in development of MMs in order to provide needed flexibility and resource protection during construction	Utilities	CPUC / NEPA Lead Agency	• CPUC agrees • DFG agrees
High	Make MMs & stipulations consistent among all agencies	BLM	″	• CPUC agrees • DFG agrees. This would make compliance easier for all agencies. This will require significant coordination pre-CEQA/NEPA and there may be agencies requirements that cannot be resolved this way.
	Continue to prepare MMs to supplement APMs as necessary	CPUC	″	• CPUC agrees
High	Ensure early coordination among Applicant, NEPA authors, and Agencies	USFS	ALL	• Continue. DFG agrees this is the best way to streamline the process and simplify the measures.
	Clarify intent of MM language in CEQA documents	PG&E	″	• DEIR comments provided by utilities can be incorporated in FEIR

HIGH	Provide MM flexibility to allow: 1. Adjusting nest buffers without prior agency concurrence 2. Removing unoccupied nests of non-threatened/non-endangered avian species without advanced agency concurrence 3. Limited vegetation removal (trimming) during breeding season 4. Permitting vehicle use within nest buffers on existing roads	Utilities	"	CPUC Comments: 1. CPUC does not agree. DFG does not agree. 2. CPUC would like DFG to comment. If the NBMP has an adequately detailed "nest removal" discussion, this could be acceptable. In the past we have not been comfortable with this as it would possibly lead to "underground regulations" 3. Agreed and already allowed on many current projects given adequate surveys and monitoring. Current projects did not appear to minimize these activities to the maximum extent practical. It became standard measures. How do we allow clearing during the breeding season without it become routine. Furthermore, if these activities will be allowed its important the true impact to nesting birds is captured and analyzed in the CEQA/NEPA document. Surveys have not proven their effectiveness in most vegetation communities. 4. Agreed, and implemented on TRTP. "
	Require use monopole towers to discourage nesting	BLM	"	• CPUC can consider; depends on terrain and construction techniques

HIGH	Do not create MMs or Stipulations that go beyond the Biological Opinion or Incidental Take Permit	BLM	″	• CPUC agrees with this goal, but DEIR/S and MMs are written many months prior to BO and ITP; need agency comments for consistency • Its not clear the intent of this comment. Is it implying CEQA/NEPA mitigation is not required? Obviously its different from CESA/LSAA mitigation. However, it is beneficial to coordinate what the ITP/LSAA conditions will be before the EIR/EIS is approved to streamline conditions. Where DEIR/S conditions may be broadly or narrowly focused on defraying project impacts, permit conditions typically focus in on specific species. As suggested by CPUC, there is also a timing issue.
				•
	BIRD NESTING MANAGEMENT PLANS			

High	**Provide for NBMPs:** 1. Require NBMPs to be developed in coordination with CPUC/NEPA Lead Agency and wildlife agencies 2. Obtain CPUC/NEPA Lead Agency and wildlife agency reviews and concurrence as early in the process as possible (i.e., prior to project approval 3. Define the minimum components of an NBMP	All	Utilities	• Continue • Utilities prepare plan; agencies review and approve • 1. While this would be frontloading some work it would save time overall. • 2. Yes. Its important the documents are vetted through the CEQA/NEPA process to avoid deferring of mitigation. • 3. Minimum requirements for an adequate NBMP could be identifdied, but each plan needs to reflect the biology.
High	Make NBMPs specific to each project area	BLM	Utilities	• DFG agrees with this.
HIGH	Approve NBMPs in timely manner	Utilities	CPUC and Agencies	• More timely approvals would be possible if we had earlier coordination of the NBMPs. If coordinated during the drafting of the environmental document, this would be a moot point. Additionally, if the plans were not trying to be interpreted to fit within the law, approvals would be much straighter forward.

High	CPUC acknowledge that NBMPs are adaptive and can change during construction with resource agency concurrence	Utilities	CPUC and Agencies	• CPUC supports adaptive NBMPs (evolving based on nest success data and lessons learned on nesting deterrents) • Agreed. There are instances in which buffers should be decreased and *increased.*
	CPUC defer to collaborative resource agency consultation, guideline interpretation, and reasonable recommendations	Utilities	CPUC and Agencies	•
Low	Provide Draft NBMP as part of PEAs through development under an APM ***or*** require development under an MM	CPUC	Utilities (if PEA) or CPUC (if MM)	• Continue. Coordinating during the PEA, would smooth out many of the issues identified above.
High High	**Establish basic NBMP content. Draft NBMPs requirements:** 1. Identify buffers that are tailored to species and consider the range of construction activities to be used, including helicopters 2. Do not specify nesting season (BLM). Identify local breeding season during which surveys are required (with flexibility to adjust dates in coordination with agencies) (CPUC).	CPUC	Utilities	• Helicopter use and other unanticipated uses with potentially high levels of impacts should be addressed specifically. • This may be valuable to all parties. Some years breeding begins earlier or later in the season depending on local conditions.
Low	3. Specify survey timing in relation to construction activity, survey area, protocols/methods, and surveyor qualifications			• Continue to work with experts to determine appropriate protocols and methods to obtain the best data for future projects.

High	4. Specify specific nest deterrent methodologies			• Continue to work with experts to determine appropriate measures to obtain the best data for future projects. Obtain data from past project to determine success of methods.
High	5. Specify monitoring and reporting protocols during construction	CPUC	Utilities	• Continue to work with experts to determine appropriate monitoring and reporting protocols to obtain the best data for future projects.
High	6. Provide for post - construction monitoring plan to determine nest outcome and assess effectiveness of buffers according to pre - established performance criteria (developed in coordination with CDFG and FWS)			• Continue to work with experts to determine the most effective use of these reports.
High	7. Schedule NBMP review/revision to incorporate lessons learned and previous season's data on nest success			• DFG agrees.
High	8. Identify protocol for determining whether a nest is active			• DFG agrees. Also define "active" in the context of the law and the project.

High	9. Identify example situations where buffer reductions could occur beyond the defined NBMP programmatic buffers	CPUC	Utilities	• It is extremely difficult to provide universal situations in which a buffer reduction is justified. • Need better definitions on affective buffers before we can propose smaller buffers. We need to make sure we are all talking about the same thing.
High	10. Require that all requests for buffer reductions (below those established in the NBMP) be approved by the CPUC/NEPA Lead Agency in consultation with resource agencies.			• DFG may also consider allowing for buffer-reduction approval by an applicant's qualified biologists.
High	11. Specify that buffer reductions are temporary for low - impact activities, and nests within reduced buffers have full - time monitoring by an avian biologist			• See related comment above.
High	12. Define terms, such as: a. "Active construction" or what keeps a site "active" (focused surveys do not need to be repeated in active work areas) b. "Sweeps" (levels, types of activities, breadth of surveys, etc.) and how they differ from a focused nest survey	CPUC	Utilities	• Continue • a. Suggest focusing less on "active construction areas" and more on idle equipment and areas. Ultimately, this will likely fall on the judgment the avian monitor. • b. This would be a valuable term to define.
High	13. Clearly state what happens when a bird nest is found in an active site	CPUC	Utilities	• Clarify. It would appear that they apply buffer, followed by monitoring.

HIGH	14. Stipulate qualifications required for avian biologists charged with monitoring and for considering buffer reduction requests	CPUC	Utilities	• Essential to clarify.
Low	Specify noise thresholds and work within these (varies by species) & if can't do then do pre-construction surveys to identify nests at specified distance	FWS	Utilities	• Recommend avoiding using noise as a measure of impact. Noise is usually measured over one hour. This impact does not translate well to transmission impacts when duration is in the minutes. • There are too many variables in the methodology for measuring noise, existing conditions and our understanding of species specific interactions with noise.
Low	Enforce NBMP locally via avian monitors	BLM	Utilities	• This issue is not clear.
Low	Allow utilities to self-manage buffer reductions around active nest during construction, relying on resource agency-approved utility avian biologists	SDG&E	Utilities	• DFG agrees. Agencies must review and approve

HIGH	Develop process for relocation or removal of active nests in critical construction situations	Utilities	Utilities	• DFG agrees. Agencies must review and approve • Continue to work on proposed regulation changes to address this issue. • Continue to define terms. What is considered a "critical construction situation" may not fall within our code's exceptions (e.g. § 3801.5). its not clear how we can do this.
High	Define or list acceptable physical deterrents at existing inactive nests	Utilities	Utilities	• Agencies must review and approve DFG agrees, but requests data on past success and failures of the deterrents.
High	Use professional judgment when no species-specific buffer distances are known. Define using credible peer reviewed information.	USFS	Utilities & Agency Monitors	• It's not clear that the success of "professional judgment" buffers is adequate. This is why more data is necessary.
Low	Consider timing of all activities, including any potential schedule changes. Identify potential contingency items to address changes in scheduling.	USFS	Utilities	• This way, agency expectations of the project proponent are clear.
	PRIOR TO CONSTRUCTION - PLANNING			•
High	Develop a prompt process for addressing raptor and sensitive species issues in the field	Utilities	All	• Utilities request; agencies review and respond

High	Require buffer distance from construction of at least half mile from active eagle nests	BLM	FWS	• Utilities request variance; agencies review and respond. Could possibly allow qualified avian monitors to make the decision.
High	Continue to plan construction to avoid highly sensitive avian areas during nesting season to the extent feasible	Utilities	Utilities	• Utilities request; agencies review and respond
Low for DFG	Work with FWS to develop bird conservation strategies to help lessen take incidents to otherwise lawful activities	FWS	Utilities	• Utilities request; agencies review and respond
Low	Allow at least one year lead time for agreement on an Eagle Conservation Plan	BLM	Utilities	• Utilities request; agencies review and respond
Low	Consider use of innovative methods (e.g., Ultrasonic deterrents confuse, disorient, and intimidate birds within range so they avoid the area. These technologies may have other impacts that would need to be assessed if this technology is proposed.)	CPUC	Utilities	• Utilities request; agencies review and respond • Continue to explore. • If such a technology is used, suggest that the entire effective range of the technology would then need to be addressed as a loss of habitat which is likely not amenable to the project proponents nor good for the species.

High	Plan construction schedule to minimize restrictions imposed by buffers. Project should: 1. Anticipate need for deterrents at specific locations 2. Install deterrents in time to be effective 3. Plan construction - related activity, especially vegetation removal, to occur outside of the bird breeding season, but consider impacts to other sensitive species (e.g., listed amphibians) 4. Remove nests prior to breeding season only in accordance with laws, and only for species that re - use nests	CPUC	Utilities	• 1. Agreed. • 2. Agreed. • 3. Agreed. • 4. Removal of nest may not be necessary, consider exclusionary methods?
				•
	DURING CONSTRUCTION - IMPLEMENTATION			

High	For common species, use nest deterrents to inhibit nest construction prior to nest becoming "active" (USFWS definition): • Use behavioral deterrents to encourage nesting outside work areas • Develop process for relocation or removal of active nests in critical construction situations • Use physical deterrents for existing inactive nests • Where deterrents are not effective, allow reduced buffers • Consult with resource agencies for raptors and sensitive species	Utilities	Utilities	• Utilities request; agencies review and respond • Continue to resolve this issue. see above comment regarding deterrents and removal • Critical to resolve these issues for future projects. • Must define "Common Species"
High	Inspect and maintain nesting deterrents, including netting, caps, etc., regularly to avoid incidental impacts to wildlife	CPUC	Utilities	• Provide reports on effectiveness of deterrents.
High	Implement and maintain an easy to use nest mapping system: 1. Identify location, species, and any special circumstances regarding the nest 2. Indicate on maps the location of work areas and buffers 3. Share maps with CPUC and agencies	CPUC	Utilities	•

Low	Harass birds using various hazing techniques to clear them from work areas	FWS	Utilities	• Hazing may be difficult to implement in a way that ensures that you are not harassing a nesting bird. Also, in certain instances some avian species can acclimate to hazing.
High	Do not destroy inactive nest that are not on towers	BLM	Utilities	• Need to resolve this issue. What do we do with nests on towers.
High	Do not collapse inactive burrowing owl burrows	BLM	Utilities	• Develop alternative avoidance methods for linear projects that minimize impacts.
High	Remove inactive raven nests outside of the breeding season in tortoise habitat	FWS/BLM	Utilities	•
?	Enforce MMs locally	BLM	CPUC and/or NEPA Lead Agencies	• Unclear
High	Conduct surveys using well-trained avian biologists and appropriate protocols	USFS	Utilities	• We need to come up with standards for avian biologists who have adequate nesting bird experience. This is a significant issue since not all biologists are good nest biologists.
High	Verify that protocol is not going to create disturbance in and of itself (e.g., too many helicopter surveys for golden eagles)	USFS	Utilities & FWS	• DFG Agrees

High	Submit resumes of biologists early; options for training in field	USFS	Utilities	•
High	Submit documents before starting construction	USFS	Utilities	• This should be a requirement.
	DURING CONSTRUCTION – MONITORING / REPORTING			
High	Continue to monitor active nests to determine outcome	BLM	Utility & Agency Monitors	• This is a huge data gap as identified in previous comment. More expert opinion is necessary
Low	Decrease the frequency of reporting unless there is an incident	BLM	Utility & Agency Monitors	• There is value in not "swamping" the agencies, but I see this as a secondary action following the resolution of other issues.
High	Implement uniform standards for biological monitor qualifications	BLM	FWS / DFG	• See related comment.
	Designate one approving agency for biological monitor	BLM	FWS / DFG (CPUC / BLM?)	• Possible.
High	Increase utility use of qualified ornithologists to monitor bird behavior	CPUC	Utility	• agree
Low	Ensure utility monitors are trained in nest detection to maximize early nest detection and to ensure buffers are established or adjusted as needed to prevent a take	CPUC	Utilities	• Agencies review and approve • This could be addressed as a component of the above comment.
High	Add an avian biologist to CPUC compliance monitoring team	CPUC	CPUC	• DFG agrees. This will help coordinate a response to the requests.

High	Monitor 7 days/week during peak breeding season	FWS	Utility & Agency monitors	• Modify. Need to consult the experts to determine if 7 days a week could cause more impacts that necessary.
Low	Allow reduced buffers where deterrents are not effective	Utilities	Utilities	• Agencies review and approve • This may work given that if the deterrents are not effective, it may be an indication of that individual's tolerance to anthropogenic activity. More discussion is warranted.
				•
	REGULATORY STRATEGIES			
High	Establish consistent definition of 'nest' and what can and cannot occur, and when	Multiple	DFG & USFWS	• DFG Agrees
High	Develop regulations to implement F&G Code 3503 and 3503.5	DFG	DFG	•
High	CDFG provides guidance on Fish and Game Code protections, specifically on the terms "active nest" and "needless destruction", and review MMs to ensure they do not include components that are inconsistent with F&G Code	DFG	DFG	• Continue to work on guidance and specific terms.
?	Use USFWS special purpose permits and F&G Code 3513 for proactive nest management	Utilities	FWS / DFG	• Continue to look into this process. Unclear

Low	Keep bird mitigation out of Streambed Alteration Agreements (other than seasonal restrictions on vegetation clearing)	BLM	DFG	• In most situations I can see where referral to the NBMP is possible; however, there are situations where additional measures may be warranted. .
?	Keep FWS as the sole regulator of eagles; no additional stipulations by other agencies	BLM	FWS & CPUC / NEPA Lead Agencies	• CEQA/NEPA documents must assess all impacts and present mitigation to reduce to less than significant levels • In particular, DFG has no allowances for take of the species, and for this reason the CEQA document must demonstrate that the project would not impact eagle.
High	Provide for reasonable exemptions: • Clearly defined emergencies • Non-native species • Activities outside the breeding season • Scientific, educational, propagation, etc.	DFG	DFG	• There are clearly times when there exemptions would be appropriate. Its not clear, however, how we can define some of these issues without the risk of underground regulation issues.

High	Develop a permitting program that includes: • Nest and egg take authorization • Focus on declining and vulnerable species • Greater protection for listed and sensitive species • Minimization and avoidance measures tailored to impacts • Mitigation measures tailored to impacts • Improved wildlife management action opportunities	DFG	DFG	• Continue.
High	Submit findings on regular timed basis	USFS	Utilities	•
Hgh	Do not assume that a nest failure is not associated with construction. State facts and define any associated activities occurring in the vicinity. Do not infer cause and effect	USFS	Utilities	• DFG agrees.
	Other			
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				•