

## Progress of Avian Wildlife Protection Program & Schedule

Shawn Smallwood

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The wind companies in the Altamont Pass operate under a set of conditional use permits (CUPs), collectively termed the Avian Wildlife Protection Program. Following a January 2007 settlement agreement involving all but one company and an agreement to terminate mediation over implementation of the settlement agreement, the SRC has been confused over what are the CUPs. Therefore, I revised my earlier draft of the permit terms and their implementation status. What follows is entirely my own assessment of the progress of the Avian Wildlife Protection Program, and does not represent the collective opinions of the Scientific Review Committee (SRC). Table 1 lists the mitigation plan adopted by the Alameda County Board of Supervisors on 22 September 2005, and amended following the settlement agreement approved on 11 January 2007. It also lists deadlines for implementation of particular measures, and it lists the status of implementation as far as I know or recall it.

Over the first four months the SRC spent most of its efforts on developing a fatality monitoring plan, which was the direction given the SRC by the facilitator. In its sixth month the SRC began addressing mitigation measures, and started getting compliance reports from County staff. Beginning in May 2008, County staff began canceling SRC meetings without consulting the SRC. Meetings were canceled until the SRC's conference call of 4 September 2008, when County staff told the SRC to stop work until SRC members signed contracts with the County. Contracts were sent to SRC members in December 2008, but not signed until mid-February 2009. County staff scheduled no meetings until a conference call meeting held on 18 May 2009, but this and subsequent meetings were again canceled by staff without consulting the SRC. The first SRC meeting of 2009 was a conference call in July. Since then, two in-person meetings were held in September and October.

During the 18 May 2009 conference call, County staff informed the SRC that the settlement parties had been meeting for more than a year to prepare for the Habitat Conservation Plan (HCP)/Natural Communities Conservation Program (NCCP). Also, the settlement agreement had been modified by an agreement to terminate mediation over alleged failures of the companies and the County to abide by the terms of the 2007 settlement agreement. Asked how the permit conditions were changed and which ones the SRC should consider in force, County staff said they would update the SRC at a future meeting. Complicating matters, County staff said the agreement to terminate mediation would govern for the time being, serving as an add-on to the settlement agreement in some cases and as a replacement in others, but staff also said the conditional use permits of the settling companies would not be amended until after the HCP outcomes, anticipated in 2011. In other words, the CUPs are effectively amended but are not officially amended. However, Californians for Renewable Energy (CARE) declined to sign the mediation agreement, and Term 11 of the 2007 settlement agreement requires that amendments to the agreement be signed by all parties. I do not recognize the mediation agreement as controlling, and I consider the controlling permit conditions to be those of the settlement

agreement in combination with the 2005 Board Resolution. Nevertheless, I briefly summarized the terms of the agreement to terminate mediation (Table 2).

## **CONCLUSIONS**

The Avian Wildlife Protection Program did not proceed as planned (Table 1). Nearly every deadline was missed. Funding was insufficient. The monitoring team was not treated as an independent or neutral third party, and the SRC was not allowed to perform many of the tasks it was assigned in the Board Resolution and settlement agreement. Required mitigation measures were not implemented, so it should be of no surprise that there is no evidence avian fatalities were reduced as a result of the Program. Unfortunately, the Program elements intended to ensure eventual avian fatality reductions should the initial measures fail, such as an EIR, an NCCP, offsite conservation measures, and a revocable restoration bond, were not developed and are not in place as the three-year period of the Program ends (i.e., today).

The SRC was largely unable to perform its duties described in the Board Resolution and settlement agreement. For example, it was not until 20 October 2009 that the County asked the SRC for input on the amount of the restoration bond. The SRC was repeatedly directed away from formulating offsite compensation measures for unavoidable bird fatalities. Although confirming permit compliance was a key role of the SRC, the SRC was not given the means to confirm company compliance with any permit conditions, and has not done so. The wind companies rejected nearly all SRC recommendations for reducing avian fatalities, and the County required the companies to implement none of them as far as I could determine. SRC efforts to collaborate with the monitoring team were discouraged, and the companies insisted that my efforts to collaborate with the monitoring team not be compensated. The SRC was repeatedly warned that it was not the SRC's role to analyze data, even though the Board Resolution and related documents clearly indicated the SRC was supposed to analyze data. Also, the SRC has not participated with the required two public hearings per year, and its agenda and meeting schedule has been controlled by the County over the last 18 months.

### **Agreement to Terminate Mediation**

As mentioned earlier, the amendments to the CUPs stemming from this agreement violate Term 11 of the 2007 settlement agreement because CARE did not agree to these amendments. Ignoring this fundamental permit violation for the moment, two of the terms of the new agreement required SRC involvement (Table 2). The SRC was involved with neither term. Also, at least two deadlines were missed and the compliance monitoring was not done by an independent third party. The hiring of a compliance monitor effectively ended the SRC's role of confirming wind company compliance with multiple mitigation measures required in the permits, the Board Resolution, and the settlement agreement of 2007. The role of the SRC in determining compliance was specified in at least 9 permit terms. The SRC was not given the means to perform this role, but the agreement to terminate mediation eliminated it. Eliminating this role of the SRC amounted to a substantial change to the settlement agreement, which was prohibited by Term 11 of the settlement agreement without signed agreement from all parties.

Table 1. Terms, deadlines, and progress of the Avian Wildlife Protection Program. In the left-most column labeled ‘Source,’ BR = Board Resolution, G-2 = Exhibit G-2 for non-settling companies (i.e., AWI), G-1 = Exhibit G-1 for settling companies, and SA = settlement agreement. Sometimes the required measures were essentially the same between source documents, so the CUP term corresponding with the source document is presented to the right of the code for the source document. For example in the fourth row down, Term 2 of source document G-2 and Term 1 of source document G-1 share the same deadline of 11/30/05 and the same measure of providing a schedule for implementing on-site strategies to reduce avian mortality as identified by CEC-funded research.

| Source | Term | Deadline | Mitigation measure   | Status of mitigation measure   |
|--------|------|----------|--|--|
| BR     | 5    | 10/22/05 | Convene SRC, whose responsibilities and objectives shall be those summarized in Exhibit D. “The SRC should utilize an approach under which there is a continual cycle of assessment, design, implementation, monitoring, evaluation, adjustment and re-assessment of strategies, except where experimentation on this basis is deemed by the SRC to be in conflict with the overall program of strategies and schedule...” | SRC was assembled in August 2006 and met for first time on 11-13 Sep 2006, nearly one year after the deadline. The County told the SRC to stop work on 4 Sep 2008, allowed a conference call on 18 May 2009 and another one on 20 July 2009 (all other calls and meetings were canceled without consulting the SRC). The County controlled the SRC’s agenda, deflected the SRC from pursuing key objectives, and prevented it from closely collaborating with the monitoring team. The SRC’s funding was also cut to the degree that disallowed it from achieving the objectives given it by the Board of Supervisors. |
| BR     | 4    | 12/31/05 | The Permittee shall post a restoration bond or equivalent financial instrument in an amount to be determined by the Planning Director and SRC as sufficient to guarantee the reclamation of abandoned facilities and restoration of properties to pre-installation conditions in the event of failure of the Permittee to implement the terms of conditions herein.  | The deadline was missed because the SRC was not convened until September 2006 and because the issue of the restoration bond was not brought before the SRC until 20 Oct 2009. The SRC was unable to weigh in on the restoration bond, which could have covered the removal of derelict turbines, as recommended by the SRC.  |
| BR     | 7    |          | The Permittee shall implement the Program Schedule in Exhibit G to the satisfaction of the Planning Director, and may not continue turbine   | The Planning Director either concluded that the wind companies satisfactorily funded the Program, participated in the Program, and cooperated with it, or had no   |

| Source | Term | Deadline | Mitigation measure   | Status of mitigation measure  |
|--------|------|----------|--|---|
|        |      |          | <p>operations without such satisfaction on the grounds or claims of financial hardship. The Permittee will bear all costs of implementing the Program carried out by its own staff or contractors, and shall fully fund the County-initiated portions of the Program. If the Permittee ceases to participate in the Program or per these conditions or is deemed to be non-cooperative by the Planning Director, the Permittee, upon a duly noticed hearing for Permit revocation, shall be responsible for restoring or otherwise reclaiming the facility site(s) to pre-project conditions, or shall forfeit the Reclamation Bond referenced above as Condition 4.</p>   | <p>Reclamation Bond to revoke. The latter explanation was likely, since the SRC was not presented with any information about the Reclamation (or Restoration) Bond until the end of the Program.</p>  |
| BR     | 6    | 10/22/05 | <p>County shall initiate hiring of qualified professional consultants to conduct intensive, scientifically-rigorous and independent monitoring of avian fatalities in the Alameda County portion of the APWRA, including existing and future repowering projects, as a neutral third party. The consultant shall use appropriate protocols and methods to enumerate bird deaths and describe causal factors (e.g., location and pattern of turbines, avian behavior, and environmental conditions), and to pursue other research objectives to be established by the SRC and/or the Planning Director, and to assemble such data for use by the SRC. The consultant shall provide monthly reports of avian deaths to the SRC, the Planning Director, the U.S. Fish and Wildlife Service, and the California Department of Fish and Game. The wind companies will fund the monitor.</p> | <p>The SRC was not provided monthly reports of avian fatalities, nor did the monitors assemble data for the SRC's use until the end of the Program. Some data were provided to the SRC whereas other data were not. Whenever I did use data provided by the monitoring team, the wind companies insisted that I not be paid for my efforts (I was not paid) and the County warned that it was not the SRC's role to analyze data.</p> <p>The SRC recommended other research objectives, but the monitors were able to pursue only one of them, i.e., the intensive searches for burrowing owl fatalities. The wind companies would not fund monitoring directed toward any of the other objectives, and the County did not require that the objectives be pursued.</p> <p>The wind companies restricted funding to the monitors since the Program's beginning. They did not pay for the</p> |

| Source | Term | Deadline | Mitigation measure   | Status of mitigation measure  |
|--------|------|----------|--|---|
|        |      |          |  | monitors' service for long stretches, resulting in the loss of the monitoring team's leadership in July 2008. Recently, NextEra threatened not only to withhold payment from the monitors, but to seek reimbursement on previous payments (Memo from Emre Ergas to Sandi Rivera and Douglas Lesley, 9 July 2009). Under this and other types of pressure from County and wind companies, the monitors struggled to act independently or as a neutral third party. |
| BR     | 10   |          | To maintain communication between the SRC and the major stakeholders, the Planning Director shall convene the previously established Wind Power Working Group at least twice per year to receive reports on progress on compliance with the conditions herein. The current members of the Working Group are provided in <b>Exhibit E</b> . | By now the SRC was supposed to have held at least eight public workshops, but it has held two, one in December 2006 and another in February 2008. It is unclear whether these meetings were with the Wind Power Working Group, because most members stopped participating with the Program after the 2005 BOS Resolution, and some stopped after the 2007 settlement agreement.   |
| G-2    | 1    | 10/31/05 | Tier 1 turbines to be shutdown and confirmed by SRC  | Most of the Tier 1 turbines remained operational APWRA-wide on 3-5 April 2007, and some were still operating in September 2007 (SRC P54). AWI reported to county staff that 7 of their 9 Tier 1 turbines were shutdown by the end of June 2005, but 2 were not shut down until October 2007. However, the SRC has not confirmed any turbine shutdowns.  |
| G-1    | 4.a  | 2/9/07   | Companies shall shut down Tier 1 & 2 turbines  | This deadline was missed and SRC did not confirm the Tier 1 & 2 turbines were shut down. Note that NextEra requested credit for turbines they said they shut down in 2004, and on 20 July 2007 the SRC recommended on a 4-1 vote that credits be granted.   |
| BR     | 17   |          | If the Permittee requests to relocate any Tier 1 or 2 turbines, the siting proposal shall be submitted to  | The SRC did not receive any siting proposals related to the relocation of Tier 1 or 2 turbines.   |

| Source     | Term       | Deadline | Mitigation measure  | Status of mitigation measure  |
|------------|------------|----------|---|---|
|            |            |          | both the SRC and Planning Director for review and approval, subject to affirmative findings that the new siting would not result in increased risk of avian mortality and injury.   |   |
| G-2<br>G-1 | 2<br>1     | 11/30/05 | Permittee shall provide a schedule for implementing on-site strategies to reduce avian mortality as identified by CEC sponsored research  | No schedule was provided.   |
| G-2<br>G-1 | 2.a<br>1.a | 3/20/06  | Retrofit all electric distribution poles to APLIC standards   | In fall 2006, SRC was told the retrofits were completed, but in April 2007 the SRC was told the retrofits were not completed. The SRC did not verify the retrofits.   |
| G-2<br>G-1 | 2.b<br>1.b | 3/22/06  | Remove 50% of derelict and non-operating turbines, allowing towers to remain at ends of rows if deemed beneficial as flight diverters by the SRC, and replacing turbines only with SRC approval. (Note: Leaving derelict towers at ends of rows was not a recommendation stemming from the CEC funded research, as implied by Exhibits G-1 and G-2) | As of 5 Apr 2007, there was no evidence that any derelict turbines or towers were removed (SRC P54). In the meetings of 4-6 Dec 2006, 5-7 Feb 2007, and 27 Feb 2007, the SRC recommended immediate removal of derelict towers from ends of rows, but Alameda County had not transmitted the SRC's recommendation to the Permittees as of 5-7 Feb 2007. Since then, the SRC repeatedly recommended removal of these towers, which were still in place during the SRC's 4-day field tour in 29 Nov to 10 Dec 2007. I observed many derelict turbines in the APWRA during Nov 2008. On 23-24 Apr 2008 County staff told the SRC the derelict turbines were not removed due to confusion over the term "derelict." The agreement to terminate mediation redefined derelict turbines as "unproductive turbines" if they had not generated power in 12 months, and it specified new deadlines for removing allotments of these turbines annually. |
| G-2<br>G-1 | 2.b<br>1.b | 9/22/06  | Remove 100% of derelict and non-operating turbines, allowing towers to remain at ends of rows   | See above. As of Nov 2008, many derelict towers and non-operating turbines remained in the APWRA,   |

| Source | Term  | Deadline | Mitigation measure  | Status of mitigation measure   |
|--------|-------|----------|---|--|
|        |       |          | if deemed beneficial as flight diverters by the SRC, and replacing turbines only with SRC approval.   | including the end-of-row derelict towers the SRC recommended be removed immediately. The Agreement to terminate mediation narrowed the definition of the turbines involved and extended the removal deadlines.   |
| G-1    | 2     | 1/11/10  | Wind Companies shall reduce raptor mortality 50%  | There was no reduction in raptor mortality as of Oct 2007 (SRC P76), and no evidence of a reduction since (SRC M21 v. 2009; SRC P145).   |
| G-1    | 2.a   | 11/9/09  | The baseline shall be 1300 raptors; the species used to determine the reduction shall be golden eagle, red-tailed hawk, American kestrel, and burrowing owl; and the scaling factor [i.e., mortality adjustment factor for scavenger removal rate, searcher detection error, and presumably any other factor] shall not exceed 2.5. | The SRC explained to the settling parties that the baseline value of 1300 was for all raptors and not just the 4 identified in the CUP, and the mortality estimates from both the baseline and the current program needs to be comparable and based on the same assumptions and methods. The baseline will need to be adjusted using factors the SRC deems scientifically appropriate (SRC Replies to Parties' Answers_040307). On 14 Feb 2008 the County told the SRC and monitoring team the new mortality estimates must be compared to the baseline figure of 1300 raptors, and that any adjustment factor >2.5 will need to go before the Parties for their approval. |
| G-1    | 2.b   | 1/11/08  | The settling parties shall meet and confer with the SRC at least annually to determine if mutually acceptable mid-course corrections in measures to reduce raptor mortality are appropriate after the SRC evaluates the prior year's monitoring data.   | In four years only one such meeting occurred. A question and answer meeting occurred on 10 Oct 2007, when the SRC recommended mid-course corrections. The SRC sent written recommendations to the County, but the County did not require that the companies implement the recommended measures.  |
| G-1    | 2.c   | 11/1/09  | Implement adaptive management measures if raptor mortality has not been reduced 50%   | Raptor mortality was not reduced. County staff announced expectation that the formulation of the measures will be delayed (SRC meeting 22-24 Sep 2009).  |
| G-1    | 2.c.1 | 6/1/09   | The SRC will prioritize management measures,  | Deadline was missed, and SRC was not allowed to meet to  |

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|--------|-------|----------|---|---|
|        |       |          | including an evaluation of management measures that have not reduced raptor mortality at the expense of energy production, after analyzing field monitoring data. The SRC shall use its best efforts to achieve its prioritization of management.   | prioritize management measures. Also, the SRC was unable to evaluate management measures as required because none were implemented adequately.  |
| G-1    | 2.c.2 | 8/1/09   | Wind Power Companies and Audubon will propose an adaptive management plan to the SRC/County for review pursuant to Condition 5 of the Permit if raptor mortality has not been reduced 50% and is not projected to be reduced 50% by 11/1/09. The adaptive management plan will be designed to achieve a 50% reduction in raptor mortality with the least impact on energy production, and may include the elimination or reduction of seasonal shutdowns. The SRC shall act (pursuant to Condition 5 of the Permit, as necessary) on the adaptive management plan by 11/1/09. | No adaptive management plan was sent to the SRC. County staff announced expectation that the formulation of the measures will be delayed (SRC meeting 22-24 Sep 2009).  |
| G-2    | 2.c   | 3/20/06  | Subject to approval by USFWS, remove all artificially created rock piles away from turbines.  | The rock piles were not moved. On 4-6 Dec 2006, the SRC asked the County to consult with the USFWS to determine whether the rock piles could be moved, but the County did not contact the USFWS until spring 2007. On 16 Oct 2007, the County reported that the USFWS concluded the rock pile relocation required a formal consultation and take permit for California tiger salamander. The SRC deferred further discussion on this measure. |
| G-2    | 2.d   | 3/20/06  | Implement other on-site management measures identified in the CEC sponsored research and recommended by SRC and approved by Planning Director   | See list that follows, from 2.d.1 to 2.d.9  |



| Source | Term  | Deadline | Mitigation measure  | Status of mitigation measure  |
|--------|-------|----------|---|---|
| G-2    | 2.d.1 | 3/20/06  | Retrofit tower platforms to prevent under-burrowing by small mammals            | Tower platforms were not retrofitted, and the SRC did not regard this measure worth consideration in 2007.  |
| G-2    | 2.d.2 | 3/20/06  | Cease rodent control activities on all sites                                    | The SRC was told on 11-13 Sep 2006 that rodent control had stopped, but there was no verification. The SRC recommended a monitoring program be developed and implemented to track practices such as rodent control in the APWRA (SRC meeting notes of 23 Oct 2006), but no such program was initiated. Rodent control was again implemented north of Gate 1A in early summer, 2009. |
| G-2    | 2.d.3 | 3/20/06  | Paint turbine blades using Hodos scheme on a trial or larger basis.             | Without consulting the SRC, AWI painted the blades of 42 wind turbines using the Hodos painting scheme, but not the correct paint. AWI presented its trial results to the SRC in Feb 2007 and proposed an expanded study. The SRC could not approve the study due to flawed experimental design. The SRC requested a scientifically defensible design, but none was provided.       |
| G-2    | 2.d.4 | 3/20/06  | Use turbine designs and concentrated siting to discourage raptor use            | This measure was not implemented. In Dec 2007, the SRC provided draft guidelines to relocate turbines from hazardous locations, but I do not know the extent to which those guidelines were used.   |
| G-2    | 2.d.5 | 3/20/06  | Reduce or eliminate vertical and lateral edges                                  | This measure was not implemented, and the SRC did not recommend it.   |
| G-2    | 2.d.6 | 3/20/06  | Replace guyed turbines and meteorological towers                                | The Flowind vertical axis turbines, which were guyed, were removed as part of the Diablo Winds repowering project in 2004. None of the other functional turbines in the APWRA were guyed, but guyed meteorological towers still stand in the APWRA.   |
| G-2    | 2.d.7 | 3/20/06  | Restrict cattle from grazing near turbines on a seasonal or more extended basis | No grazing restrictions were implemented, and the SRC did not recommend any.  |

| Source     | Term     | Deadline | Mitigation measure  | Status of mitigation measure   |
|------------|----------|----------|---|--|
| G-2        | 2.d.8    | 3/20/06  | Install accelerometers  | Accelerometers were not installed, and the SRC did not recommended installation.   |
| G-2        | 2.d.9    | 3/20/06  | Install improved turbine monitoring equipment   | Turbine monitoring equipment was not installed, and the SRC did not recommended installation.  |
| G-2<br>G-1 | 3<br>3.a | 2/28/06  | Winter-time shutdown experiment for 2 months, cumulatively  | The proposed winter shutdowns were completed, but poor research design and execution prevented a reliable test of the results.   |
| G-2        | 4        | 5/31/06  | Permittee shall provide a report to the SRC on the results of its first year of the winter-time shutdown experiment   | No satisfactory report was given to the SRC, which relied on various hypothesis tests and weight of evidence to assess the merits of a winter-time shutdown.   |
| G-2        | 5        | 3/31/06  | Permittee shall provide a first annual letter report to the Planning Director regarding first steps and progress toward repowering 10% of the Permittee's total number of turbines on all sites by the end of the fourth year   | On 5-7 Feb 2007, the SRC was informed no such letter was sent to the Planning Director. AWI told the SRC that repowering was not feasible for them at that time. AWI's third year CUP review documents of March 2009 indicated repowering was not under consideration.   |
| G-2<br>BR  | 6<br>9   | 9/22/06  | SRC shall have reported to the Planning Director with recommendations for potential on- or off-site strategies for conservation of critical wildlife habitat. According to the Board Resolution, "Beginning in the first year, the Planning Director, with input from the SRC and the County consultant, shall develop a program that the Permittee(s) shall fund and otherwise participate in, to provide for protection and enhancement of the habitat of raptors and other wildlife through conservation easements or other means on suitable properties to compensate for avian mortality and injury effects that remain unaffected by the Avian Wildlife Protection Program and Schedule (AWPPS)." | Alameda County exerted considerable control over the SRC's agenda, including on this mitigation measure. The deadline was missed because the SRC was not convened until September 2006. Then County staff told the SRC to not discuss this topic until after developing the monitoring plan. The SRC addressed this measure on 20-22 Aug 2007, but deferred further discussion of it after County staff told the SRC this measure would not be needed until toward the end of the current Program and the beginning of the adaptive management program. The SRC did not investigate "formulae, criteria, techniques and costs of conservation easements," nor did it recommend habitat mitigation on or off site. The County did not include this measure in its meeting agendas at the end of 2009. |

| Source     | Term     | Deadline | Mitigation measure   | Status of mitigation measure   |
|------------|----------|----------|--|--|
|            |          |          | Also, “The Mitigation Implementation Program will require the SRC to investigate formulae, criteria, techniques and costs of conservation easements or similar strategies to be carried out by the Permittee(s).”  |  |
| G-2        |          |          | <b>Years 2 &amp; 3: October 2006 – September 2008</b>  |  |
| G-2<br>G-1 | 1<br>3.b |          | Experimental winter shutdown in crossover design to last 2 months cumulatively over the winter of 2006-2007.   | The shutdown proceeded as planned, but flawed study design and execution prevented any sound conclusions from being drawn.   |
| G-2        | 2        |          | Experimental winter shutdown in crossover design to be extended from 2 months last year to 2.5 months cumulatively over the winter of 2007-2008.   | Without explanation, the County waived the shutdown extension, requiring only 2 months of shutdown (SRC conference call of 4 Jan 2008).  |
| G-1        | 3.c      | 2/28/08  | Experimental winter shutdown in crossover design to last 2 months cumulatively over winter 2007-08.  | This measure was replaced by universal 2-month shutdown without the crossover design. Note: the SRC recommended a 4 month shutdown.  |
| G-2        | 3        | 3/31/07  | Permittee shall provide a second annual letter report to the Planning Director regarding first steps and progress toward repowering 10% of the Permittee’s total number of turbines on all sites by the end of the fourth year   | Bill Damon of AWI told the SRC on 20-22 Aug 2007 that repowering remained economically infeasible for AWI. He informed the SRC there was no letter to the Planning Director because there was no plan to repower.  |
| G-2        | 4        | 3/31/07  | The County shall have obtained detailed repowering proposals from the Permittee(s), and with input from the SRC shall have completed a draft scope of work for the preparation of an Environmental Impact Report (EIR), initiated a request for proposals from qualified consultants, and have selected an EIR consultant. | The SRC was not shown plans for repowering by the permittee(s) or County. On 14 Feb 2008 the County said it will have the SRC review the EIR Scope of Work in May 2008. In later meetings the SRC was told County staff would write the Scope of Work. On 4 Sep 2008, County staff said it might begin EIR work in winter 2008-09. The County later replaced the EIR requirement with plans to prepare an HCP/NCCP, and it tried to add AWI to the settlement agreement as a Party via an MOU (SRC |

| Source | Term | Deadline | Mitigation measure  | Status of mitigation measure   |
|--------|------|----------|---|--|
|        |      |          |   | call 18 May 2009). The County said AWI's EIR preparation was postponed due to public comments on AWI's third year CUP review (18 May 2009) [Note: I don't understand the reasoning]. At the end of the Program, an EIR had not been started for any wind company or wind project in the APWRA other than repowering at Tres Vaqueros in Contra Costa County.   |
| G-2    | 5    | 9/30/07  | Subject to confirmed determination by the SRC, the Permittee shall shutdown or relocate about 25% of all Tier 2 turbines.   | The shutdowns may have occurred, but the SRC was not asked to provide confirmed determination.   |
| G-2    | 5    | 9/30/08  | Subject to SRC review, shut down or relocate an additional 25% of Tier 2 turbines.  | The shutdowns may have occurred, but the SRC was not asked to provide confirmed determination.   |
| G-2    | 6    | 3/31/08  | Draft EIR shall have been circulated for the minimum time period for public comment. The EIR will address the environmental impacts of the repowering program (including both specific proposals and the overall repowering program), the continued operation of existing turbines, and the effectiveness of the various strategies to reduce and minimize avian mortality and other adverse impacts on wildlife (e.g., new power technology, site-specific measures, grazing management). EIR shall also study siting in the Altamont as a whole, and review on- or off-site mitigation and its best use to reduce avian mortality and enhance raptor and other wildlife habitat in appropriate locations in Alameda County. EIR may also address incentives to expedite repowering, including expanding areas where wind power facilities may be permitted. | EIR preparation was not begun. On 14 Feb 2008 the County said a scope of work will be produced in May 2008, and in later meetings the SRC was told County staff would do the work, starting in winter 2008-09. On 18 May 2009 County staff told the SRC the EIR requirement was replaced with plans to prepare a NCCP/HCP, and that AWI had been added to the settlement agreement as a Party via a Memorandum of Understanding. |
| G-2    | 7    | 9/30/08  | County shall have held public hearing as part of  | Deadline was missed, and later hearing dates in January  |

| Source | Term | Deadline | Mitigation measure   | Status of mitigation measure   |
|--------|------|----------|--|--|
|        |      |          | CUP review, at which time conditions of approval may be modified based on EIR findings and SRC recommendations   | and March canceled. No EIR was prepared. In December I asked the County whether the SRC would participate, but the answer was negative. The matter was continued by the BZA in hearings held in April and September 2009.  |
| G-1    | 4.b  | 10/31/08 | Tier 3 turbines shall be removed, unless by 1 July 2007 the Companies request an alternative list of turbines for shutdown consideration by the SRC  | The companies missed the 1 July 2007 deadline, and so could not propose an alternative list. Nevertheless, they proposed alternative lists to the County and Audubon and the agreement to terminate mediation allowed them to swap Tier 3 turbines for other turbines rated by the SRC as hazardous during field trips to the APWRA in Dec 2007. The SRC did not recommend this replacement. The County said its decision was not connected to the 1 Jul 2007 deadline; it did not say what the exchange was based on. |
| G-1    | 4.c  |          | All applicable turbines under term 4 (turbines in Tiers 1 through 3) shall be removed, unless SRC approves of their continued existence or relocation, and all relocations shall be to turbine addresses in Tiers >3.  | The SRC has not been shown details of turbine relocations, or what Tier categories any relocated turbines were moved to.   |
| G-1    | 5    | 12/31/07 | Companies may participate in an SRC approved blade painting study to determine whether blade painting can reduce mortality, including up to 450 painted turbines and 450 turbines in a control group. Turbines in the painted and control treatments shall be exempted from all permanent and/or seasonal shutdown requirements for the period of the study. | On 5-7 Feb 2007, AWI told the SRC they had purchased the patent on the Hodos painting scheme, and had not yet granted permission to the settling companies to paint the blades of their turbines with any color other than white. The settling companies never submitted a blade painting proposal to the SRC.   |
| G-1    | 6    |          | The parties intend to begin developing an NCCP in years 2 through 4 of the program.  | On 18 May 2009 County staff told the SRC that planning meetings amongst settling parties began in July 2008, and monthly meetings with wildlife agencies began in  |

| Source | Term | Deadline | Mitigation measure   | Status of mitigation measure   |
|--------|------|----------|--|--|
|        |      |          |  | February 2009.   |
| G-2    |      |          | <b>Years 4 &amp; 5: October 2008 – September 2010</b>  |  |
| G-2    | 1    | 9/30/09  | Subject to confirmed determination by the SRC, the Permittee shall shutdown or relocate about 25% of all Tier 2 turbines.  | Status unknown, as the SRC has not been informed.  |
| G-2    | 2    | 2/1/09   | Shut down turbines for 3 months during winter months   | SRC was told the turbines were shutdown for 3 months, but turbines were operated periodically for maintenance during this time despite SRC warning of the collision hazard posed by habituation to non-operating turbines (8-9 July 2008). |
| G-2    | 3    | 10/1/08  | Based on the completed, certified EIR, the County, with SRC input, shall implement the Mitigation Monitoring and Reporting Program set forth therein, to modify or expand on those strategies implemented in the prior three years and provide other methods to further reduce avian mortality, which will be added to the conditions of approval for the existing turbines for the remaining years of the Permit, subject to review in the eighth year of the permit. | The EIR was not started, so this measure could not be implemented.   |
| G-2    | 4    |          | The County, through the SRC, will establish an on- or off-site mitigation program based on the EIR findings, for use in Alameda County to the greatest extent possible.  | This measure was not developed, and there was no basis in an EIR because the EIR was not started.  |
| G-2    | 5    | 3/31/09  | Permittee shall have initiated applications for repowering 10% of its existing turbines, including Tier 1 and 2 turbines removed through the 4th year, or derelict or other turbines permanently removed since 1 Jan 2004.   | Unknown.   |

| Source | Term | Deadline       | Mitigation measure  | Status of mitigation measure   |
|--------|------|----------------|---|--|
| G-2    | 6    | 9/30/09        | Subject to a new CUP consistent with the EIR and AWP Program, the Permittee(s) shall have removed 10% of existing turbines to prepare for repowering. Removal of existing turbines will be considered as compliant with this measure, and new CUPs and new turbine installations can happen later. If a new permit for repowering has not been granted due to delays by state or federal agencies or other factors outside of the Permittees' control, the Permittee must provide acceptable evidence of such factors to the Planning Director and the SRC in order to permit the continued operation of existing turbines. | The deadline passed, but there was no evidence that the SRC could confirm that 10% of the turbines were removed.   |
| SA     | 11   | Not applicable | Unless expressly permitted by this Agreement, no supplement, modification or amendment of any term, provision or condition of this Agreement shall be binding or enforceable unless evidenced in writing executed by all Parties to this Agreement. Notwithstanding the foregoing, this provision does not restrict the role of the SRC pursuant to the terms of the CUPs.  | The agreement to terminate mediation added some terms to the settlement agreement and replaced some terms, e.g., exchange of the required Tier 3 turbine removals for turbines the SRC rated 9-10 in December 2007, and the definition of derelict turbines and the deadlines for their removals. These amendments were made without written agreement amongst all parties to the 2007 settlement agreement, which violated Term 11 of the settlement agreement. |

Table 2. Summary of agreement to terminate mediation. Note that “unproductive turbines” refers to derelict turbines, broken turbines, and vacant towers that have not produced energy in 12 months. This definition was developed by the companies, the County, and Audubon during mediation, and differed from that used by the SRC. The “fully executed” agreement was not dated, but deadlines given under some agreement terms enabled me to estimate the agreement was signed 1 February 2009. The agreement date is coded as A under the heading, Deadline.

| <b>Term</b> | <b>Deadline</b>               | <b>Mitigation measure</b>  | <b>Status of mitigation measure</b>   |
|-------------|-------------------------------|--|---|
| 1           | A + 14 days<br>(2/14/09)      | County shall hire compliance monitor to photograph and physically confirm required turbine removals, unproductive tower removals, and winter shutdown, and serve notice of noncompliance within 14 days.   | On date unknown, the County hired Herman Arndt, who has a logistics background and is not a biologist. He quit within 6 weeks and County interns had to complete the job (SRC meeting 22-24 Sep 2009).  |
| 2.b.i       | A + 7 days<br>(2/7/09)        | Companies shall send list of high risk turbines to compliance monitor within 7 days of agreement. Excluding turbines on the Santa Clara site, high risk turbines shall be those rated 8-10 by the SRC or classified in Tiers 1-3 by Smallwood and Spiegel (2005).  | I am unaware whether the list was sent to the compliance monitor or whether it was sent on time. Note: No reason was given for excluding turbines from the Santa Clara site.  |
| 2.b.ii      | A + 37 days<br>(2/14/09)      | The County, after consultation with SRC, shall confirm status of high risk turbines within 30 days of each wind company’s list.  | The SRC was not consulted, as confirmed by County staff (SRC meeting 22-24 Sep 2009).   |
| 2.c & 5.a   | 2/28.09 & annually thereafter | Companies shall submit to Audubon, County, and Compliance Monitor a detailed map identifying locations and site numbers of confirmed high risk turbines  | County staff reported it received maps, though the first submission proved inadequate (SRC meeting 22-24 Sep 2009).   |
| 3           | 2/28/09                       | SeaWest shall remove turbines rated 7.5-10; enXco shall remove turbines rated 8-10; ESI shall remove turbines rated 8.5-10, but can continue operating 3 KVS-33 turbines in exchange for 6 KCS56-100 turbines.   | On 22-24 Sep 2009, County staff told SRC this measure was completed, but report was prepared by County interns. Note: the ranges of turbine ratings were narrower than recommended by the SRC. Note also that removing 6 KCS56 turbines totals 600 KW, or half the 1,200 KW of capacity ESI will continue operating in the 3 KVS-33 turbines. |
| 4d          | 2/21/09 & annually thereafter | The companies shall provide Audubon, the County, and Compliance Monitor with detailed maps of locations and site numbers of the allotment of unproductive turbines to be held in reserve for receiving turbines relocated from high risk sites, numbering 150 for ESI, 21 for enXco, and 18 for SeaWest. | On 22-24 Sep 2009, County staff told SRC this measure was completed, but report was prepared by County interns.   |



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| 4e  | 2/28/09 & annually thereafter | Each company shall remove unproductive towers in excess of allotment   | Unknown.   |
| 5.e | 3/6/09 & annually thereafter  | Compliance Monitor shall have randomly inspected 8 groups of about 50 turbines to physically confirm and photograph the removals of unproductive turbines  | According to County staff, Compliance Monitor completed surveys the week prior to SRC conference call of 18 May 2009 (Note that County staff told the SRC on 22-24 Sep 2009 meeting that the compliance monitor quit in April 2009, so it was not the compliance monitor who completed the surveys the week prior to the 18 May conference call). Status of documentation unknown. Deadline missed by 2 months. Status of documentation unknown. |
| 5.c | 3/6/09                        | Compliance Monitor shall photographically document and physically confirm removals of high risk turbines   | Deadline missed by at least 6 weeks (County staff, SRC conference call of 18 May 2009). Documentation status unknown, but compliance monitor quit in April 2009 (County staff, SRC meeting 22-24 Sep 2009).  |
| 5.d | 3/25/09                       | Compliance Monitor shall have randomly inspected 5 to 10 relocation areas (i.e., groupings of turbines) to confirm that relocations were to sites consistent with Section 3 of the SRC Relocation Guidelines, document P70 (1 -30-2008). | Turbines were shut down. Note: No date was given for when turbines would be turned back on.  |
| 6.a | 11/1/09 & annually thereafter | Companies shall shut down their turbines on 1 November, but not in the crossover design specified in the CUPs.   | Status unknown, but there's been no compliance monitor since April 2009 as far as I know.  |
| 6.b | 11/15/09                      | Companies shall submit operating data to Compliance Monitor to confirm seasonal shutdown.  | None of the Parties encouraged the SRC to rate additional turbines, nor was the action scheduled or added to a meeting agenda for discussion. County staff was unaware of whether the Parties intended to request that the SRC rate more turbines (SRC meeting 22-24 Sep 2009).  |
| 7   | No date given                 | The Parties will encourage the SRC to rate additional High Risk Turbines consistent with the "Qualitative Description of the Hazardous Ratings" section of SRC document 69 (Final 2-1-08).   |  |

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