

Commenter	#	Comment	Not w/in ADEQ purview	Check out	Change	N/A	Comments
AGFD	1	Certification should certify that the activities for RCC will not violate SWQS in OAWs			x		Need to address
AGFD	2	Given the substantial mine design changes since the COE issued its PN, the Certification should be clear in describing the activities being certified			X		Need to address
AGFD	3	Given the changes in design, the estimated impacts to waters has increased from 38.6 to 68.8 acres		X	X		Need to address
AGFD	4	Certification should reference Cienega Creek as an OAW				X	it does
AGFD	5	Certification should be issued after the USFS issues the final ROD	X				we suspended review in 2012 pending the finalization of the EIS so we knew what changes, if any, to consider
AGFD	6	Suggestions for improving Section 5.2: * clarify that the state mitigation program is in addition to the COE, USFS and UFSWS mitigation measures			X		
AGFD	6	* schedule for implementation of mitigation program should require applicant to commence and substantially complete all mitigation during first 5 years of active mining rather than after impacts occur		X			Need to discuss with team
AGFD	6	* AGFD & key stakeholders should be consulted in development of the state mitigation program				MAF & HRD Q	
AGFD	6	* final certification should describe how ADEQ will monitor and enforce compliance with this specific condition			x		ADEQ won't enforce - COE will - but needs specificity
AGFD	7	ADEQ should require RCC to collect baseline water quality data for the OAW reaches above and below the confluence with Davidson for all parameters listed in the RCC Draft Surface Water Monitoring Plan					ADEQ agrees it's important but is precluded from requiring monitoring; USFS has included it for us
AGFD	8	Lab testing of dry stack tailings and waste rock samples were compared to AWQS not SWQS. RCC should be required to model constituents in dry stack tailings and waste rock and compare to SWQS and DU's of OAWs.		X		SWQS	ADEQ's review of the data in the FEIS found no reasonable potential to exceed. SWQS are significantly more stringent than AWQS so ADEQ compared all results to the SWQS.

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AGFD	9	FEIS @ pg 367 claims that seepage from tailings will be captured by the mine pit lake. RCC's Dry Stack Tailings Storage Facility final design report indicates that the majority of the seepage will not be captured by the pit lake but will flow downgradient following GW pathways towards Barrel Canyon.		X		APP	need to check; can APP address?
AGFD	9	Full review of the DST leachate against SWQS must be done. Cert should impose additional controls, conditions or mitigation measures, including long-term funding or management of the predicted leachate plume. There is no provision in APP or FEIS for long-term post-closure monitoring or corrective actions.		X		APP	need to check; can APP address?
AGFD	10	Requests ADEQ review discharges of pollutants for impacts to narrative WQS -- sulfates, TDS, other metals				APP	no SWQS; can APP address??
AGFD	11	Full antideg analysis should be conducted on constituents SWCA predicts will degrade SWQS in OAWs based on conflicting statements in EIS				X	we did; should ADEQ review the Montgomery report?
AGFD	12	With the abandonment of the heap leach, more oxide rich material will now be waste rock. SWCA found copper leachate exceedances above SWQS in arkose, bolsa and QMP limestone. ADEQ should review to protect Barrel and the OAWs. If the arkose, bolsa or QMP reflect the potential to leach copper, ADEQ should add a requirement that these rock types be segregated and encapsulated to avoid stormwater contact.		X		APP	should ADEQ review the Montgomery report?
AGFD	13	Mine sediment control basins and compliance point dam are not designed to control all stormwater runoff from the minesite. The 2-ac capacity of the compliance point dam will be overtopped often and destroyed on occasion. Antideg review should analyze the potential for stormwater discharges to impact OAWs during and after operation.		X		MSGP	Are the dams in or out?

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AGFD	14	same as 13 -- how will stormwater control measures protect OAWs from unsettled, unfiltered and untreated stormwater?				MSGP	
AGFD	15	Suggested addition to Section 5.1 "If monitoring, <u>by the Applicant</u> , or by ADEQ or others...."			x		OK
AGFD	16	Suggests that RCC should report non-compliant water quality data to the USFS <u>and ADEQ</u> w/in 72 hours			X		OK
Danae Michael	1	Home values will decrease and people will leave the area as time goes by. Water will become less accessible. Stormwater impacts are not well understood. USFS had a screening analysis done for exceedances in runoff from waste rock (Mo, t & d, SO4, t & d) and soil cover (As, d; Fe, d; Na+,d; Hg, t & d). ADEQ should consider an appropriate full analysis before issuing the Cert.	X			X	
Hans Huth	1	Mitigation for Upper Cienega Creek is absent. UCC is also an OAW and reduced flows are expected to impact water temperature and DO.			X	SWQS	Montgomery report?
Hans Huth	2	Overall monitoring & mitigation details for the mine pit lake are absent.	X				The mine pit lake is not a WUS and ADEQ is not the agency responsible for the Migratory Bird Act.
Hans Huth	3	Please consider a bond of sufficient magnitude in order to protect the public from potential cleanup and restoration costs once the mine closes.	X				No authority for ADEQ to require bond under State 401 Cert.
COE	1	References RGL 90-04 which states a DE can usually presume a state's certification satisfies CWA 401 unless EPA disagrees with the state's conclusions or raises objections and concerns as "other water quality aspects". "Other water quality aspects" includes water quality concerns outside the scope of the state's 401 cert review, indirect impacts on water quality that the state doesn't address or where EPA has a different viewpoint.		X			

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COE	2	Discusses the impact of the February 13, 2012 letter from Blumenfeld to Col Mark Toy, ACOE reserving the right to request higher level review of the 404 permit decision. "The effect of the RA letter is to render any granted state Cert 'not conclusive' regarding water quality and necessitates the DE making 'independent judgements regarding compliance with 40 CFR 230.10(b)(1) and water quality issues in the public interest review process'".					
COE	3	In determining whether ADEQ's special conditions are reasonable and appropriate, the COE requests clarification on what level of mitigation is required? There are references to "pre-project levels", "17.2% post-closure runoff volumes", "reduction during mine operations" - what are you requiring?		X	X	TEAM	need to discuss this. Is there a sliding value as more is determined??
COE	4	Why the 180 day delay from date of issuance of the 404 permit? The COE believes it is more prudent to require the submittal of the plan prior to issuance of the 404 permit.				TEAM	To allow RCC to consider all the requirements of all the approvals -- make sure we aren't contradicting other requirements. Is 180 days too long?
EPA	1	Sediment: ADEQ's analysis presumes a simple and direct proportionality of the RCC's sediment contribution to other parts of the watershed and with no temporal variability. EPA believes the impacts of the various activities on sediment transport are likely to change over time. Suspended and bedload transport analysis are necessary to evaluate the impacts and determine potential for degradation.		X		Dennis	does the USFS require bedload analysis?
EPA	2	Flow mitigation: EPA is concerned there is inadequate detail or certainty about the ability of this condition to offset the reduction in available assimilative capacity. Runoff will actually be diminished up to 40% over the 25-30 year mine life. This would be a more appropriate mitigation target.		X	X	TEAM	flow mitigation target not high enough

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EPA	3	Flow mitigation: the strategies proposed depend on administrative actions that are not certain to occur. W/o certainty of measurable water supply and delivery and contingencies for failure to secure, EPA is concerned about reliance on them to prevent degradation. EPA recommends RCC submit the surface water mitigation program to ADEQ for approval prior to issuance of the Cert to ensure RCC has secured enough available wet water to maintain aquatic & riparian resources at pre-project levels.		X		TEAM	180 days after 404 issued or before Cert is issued?
EPA	4	Modeling: EPA believes the uncertainty associated with the modeling does not support ADEQ's conclusion of "minimal". Uncertainty equates to greater risk which argues for a more protective or precautionary application of standards. EPA again references its concerns with changes in sediment loading and a reduction in assimilative capacity affecting water quality in the OAWs.		X		Dennis	What does USGS require for sediment modeling?
EPA	5	Modeling: Drawdown as a result of the pit dewatering will affect flow conditions in Upper CC. As a contributing surface water source to LCC, reductions in flow in UCC will result in degradation of water quality in the downstream OAWs.	X			APP	
EPA	6	Cumulative impacts: RCC represents an assemblage of impacts that are additive to the existing trend of declining conditions in the watershed. The cert fails to demonstrate that the implementation of the flow mitigation program will replace flows being captured or truncated, either as a stand-alone impact or in the context of cumulative impacts to water quality such as drought and climate change.		X			How will flow condition fit with cumulative impacts analysis?

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EPA	7	Sediment: It is unclear whether corrective measures can be put in place to prevent the degradation of the OAWs should changes be detected, or whether these measures can be effective given the potential lag time between detection and implementation.		X		TEAM	How will ADEQ monitor conditions?
EPA	8	Sediment: USFS will require RCC to monitor sediment between the mine and SR83; however these measures are only applicable to USFS lands. It is questionable whether these monitoring measures and sites would capture changes to the beneficial uses associated with water quality in the downstream OAWs.		X		TEAM	Can these observations on USFS lands influence entire reach?
EPA	9	Condition 5.2.1 would benefit from a clearer description of the suspension procedures triggered if degradation is detected. Currently the draft cert says "may request" suspension of the CWA permit if degradation is detected and require additional mitigation. The condition lacks specificity on implementation and timing of the suspension and remedies if degradation should occur. At a minimum, detection of adverse water quality impacts should require immediate suspension of the cert and thus the 404 permit.		X	X		That's up to the COE but could use more specificity.
EPA	10	References the COE Memorandum where the State certification denotes compliance unless the EPA RA notifies the DE of "other water quality aspects". EPA first notified the COE in it's Feb 13, 2012 letter and expects to request the DE evaluate EPAs particular water quality issues for purposes of the public interest in its decision document if ADEQ doesn't adequately address EPA's concerns.				X	

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SSSRA	1	ADEQ fails to review and consider the Certification of RCC's MPO. Commenter asserts that the MPO is a federal license or permit triggering 401 cert. In <i>Hells Canyon Preservation Council v. Haines</i> , both the USFS and the mining operator have CWA requirements to meet. If the mining activity "may result in any discharge into the navigable waters", the operator must obtain a State 401 cert.		X		AGO	As we read it, it's still 404 related but have AG review. Bolster Basis to discuss discharges to create the pit - go to the pit.
SSSRA	2	ADEQ fails to review all potential surface water quality impacts from the RCC. Commenter asserts ADEQ improperly limits its review to only those direct impacts from the RCC discharges directly associated with the 404 permit. Claims state's responsibility to administer its watercourse lands for the public benefit - codified in ARS 45-141(A). Failure to examine indirect impacts of discharges into the state's surface waters is failing to fulfill its fiduciary obligations.				X	ADEQ looked at direct and indirect impacts of discharges associated with the 404 permit.
SSSRA	2	Self-imposed restriction violates the CWA. Section 401(d) expands the State's authority to impose conditions on the certification. 401(d) provides that any certification shall set for ...conditions to ensure the applicant will comply with the Act. Claims ADEQ's deference to the discharge activities only is contradicted by the federal code - the code refers to the compliance of the applicant, not the discharge. Additional conditions are reasonable once threshold condition, a discharge, is satisfied.				AGO	Disagree -- we have conditioned activities we believe we have authority to regulate. Should AGO look at this?

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SSSRA	2	State certifying authorities shall consider all potential water quality impacts, both direct and indirect, over the life of the project. See CWA handbook on 401 cert: Section 401 applies to any federal permit or license for an activity that may discharge into the WUS. The 9th Circuit has ruled that the discharge must be from a point source. Once these thresholds are met, the scope of analysis and potential conditions can be quite broad. As the US Supreme Court has held, once 401 is triggered, the State may consider and impose conditions on the project activity in general, and not merely on the discharge, if necessary to ensure compliance with the CWA and with any other appropriate requirement of state law.				AGO	hmm EPA didn't present this argument
SSSRA	3	ADEQ has failed to certify that the project will comply with both SWQS <u>and designated uses.</u> The applicant has not shown that the project will protect all beneficial uses, comply with all numeric standards, and comply will antideg requirements.				X	ADEQ conducted all of the data reviews based on SWQS and designated uses.
SSSRA	4	ADEQ has impermissibly proposed to issue a Cert before it has even seen information, in the form of a mitigation plan, necessary to determine that the project will not violate SWQS. Moreover, ADEQ has deprived the public the ability to participate in the 401 process.			X	TEAM	do we want the mitigation plan sooner?
SSSRA	4a	Before grant the Cert, ADEQ must require RCC to submit a fully workable mitigation plan and evaluate the plan for compliance with SWQS.		***			The flow mitigation plan is designed to offset flows. If RCC replaces lost flows 1:1, there should be no water quality degradation.
SSSRA	4b	Deferring the submittal of the mitigation plan till after the 404 is issued, deprives the public the ability to review and comment on the plan.			X		Do we want to allow for public comment on the plan once we get it? Similar to the Cert?
SSSRA	5	FEIS is deficient so any reliance on it in the 401 review is also deficient.	X				

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SSSRA	5a	USFS failed to review/require mitigation measure regarding the mine pit lake and its affect on surface water quality	X				
SSSRA	5b	USFS failed to assess cumulative impacts for all past, present and foreseeable future projects in the watershed	X				
SSSRA	5c	USFS erroneously posited it does not have responsibility or jurisdiction to examine whether the project with violate SWQS. USFS failed to address whether the mine can				x	true, they don't
SSSRA	5d	obtain an AZPDES stormwater permit nor address the impacts of stormwater discharges on water quality. Commenter believes 401(b)(1) analysis is deficient. ADEQ may rely on 404(b)(1) analysis in lieu of an alternatives analysis for a				X	will the USFS hold up MPO to ensure MSGP can be issued??
SSSRA	6	proposed discharge to a Tier 2 water. Commenter does not dispute ADEQ's ability to rely on 404(b)(1) analysis but believes RCC's analysis is deficient. Cert violates Tier 3 rules. ADEQ cannot issue a	X			TEAM	none of the discharges under review are to Tier 2 waters -- ephemerals are Tier 1 and OAWs are Tier 3
SSSRA	7	cert that permanently degrades water quality in an OAW.				X	ADEQ doesn't believe it will
SSSRA	7	Nothing in the Cert suggest ADEQ conducted antideg on the impacts of the project to DC or CC -- particularly in light of EPA's concerns for significant degradation.				X	read basis
SSSRA	7	According to EPA, modeling shows negative impacts from the mine on surface waters d/s of the mine. "changes in the hydrology severe enough to cause dewatering of CC are one possible outcome of the mine...the likelihood of effects.....increase with climate change and increased groundwater demand."	X	X		Dennis	Requires evaluation of UCC?
SSSRA	8	Cert doesn't address the effects of the mine pit lake on SWQS and designated uses.	X				Pit lake is not a WUS

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SSSRA	9	General failure to comply with all applicable water quality regulations: release of sediment and other pollutants discharged from road culverts or other structures. Diverting stormwater around the facility requires NPDES coverage at the outfalls.		X		MSGP	will MSGP cover all this?
SSSRA		Screening analysis from waste rock and soil cover may be elevated and not meet SWQS. Predicted runoff in Barrel Canyon already exceeds for some parameters, hence, the Cert cannot be approved to add more pollutants.		X		TEAM	would any of the receiving waters be impaired based on the data we have?
SSSRA		Indirect impacts to Barrel, Davidson and Cienega Creeks have not been fully assessed - especially downstream of the confluence of DC with CC.				x	
SSSRA		Tens to hundreds of acres of jurisdictional waters will be impacted by groundwater drawdown which will affect riparian habitat. Potential jurisdictional waters along Empire Gulch, Gardner Canyon, UCC have not been formally delineated and therefore the secondary impacts are not quantified.	X				requires evaluation of UCC
SSSRA		No compensatory mitigation plan has been proffered by RCC to comply with 2008 Mitigation Rule.	X				
SSSRA		Without a jurisdictional determination covering the assessment area, ADEQ is unable to determine the full scope of indirect impacts to areas regulated under the CWA.	X				Are review is impact to waters as a direct result of the 404 activities
PCAO 3/21/14	1	No evidence that a full antideg review has been done				x	read basis
PCAO 3/21/14	2	ADEQ has not demonstrated that the activities will not violate SWQS				x	
PCAO 3/21/14	3	The Cert references the subject waterbodies are "ephemeral". PC disagrees - some are intermittent springs and/or streams. Depth to GW in many areas is less than 20 feet.			X		check language

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PCAO 3/21/14	4	Due to design changes, the language describing the activities is too vague.			X	Dennis	need to clarify
PCAO 3/21/14	5	Is the Cert based on an FEIS alternative or the 404 permit as PN'd?			X		need to clarify
PCAO 3/21/14	6	Please state clearly what structures & activities were reviewed.			X	Dennis	need to clarify
PCAO 3/21/14	7	Changes to the operation changes to WUS impacted. Also some activities in the PN are no longer in the design.			X	Dennis	need to clarify
PCAO 3/21/14	8	Points of discharge authorized to the WUS should be described in the Cert		X		Dennis	need to clarify
PCAO 3/21/14	9	Does the Cert contemplate activities that are no longer proposed? e.g., heap leach, flow thru drains			X	Dennis	need to clarify
PCAO 3/21/14	10	No reference to the final SWPPP. ADEQ should review final SWPPP in conjunction with the MPO prior to issuing the Cert		X		MSGP	ongoing
PCAO 3/21/14	11	The public should have the opportunity to review the SWPPP prior to finalization.	X			HRD/MAF Q	not sure if the question is public review of the SWPPP before ADEQ gives final authorization to discharge or before we issue the 401 Cert.
PCAO 3/21/14	12	The references does not include the "Preliminary Site Water Management Plan for the Barrel Alternative". A final plan may be included in the final MPO.		X		Dennis	need to check - is it available from USFS? 5/1 call to Kathy Arnold
PCAO 3/21/14	13	ADEQ does not cite the 2010 Site Water Management Update and the Site Water Volume X referenced by the applicant's 401 application. What did ADEQ use as the basis for the description of measures to be taken to control pollutants?		X		Bob/Dennis	need to check - is this referenced in the 401 application
PCAO 3/21/14	14	ADEQ relied on outdated documents which clouds the ability of the public and contractors to know what activities are being certified. Application references different documents as well.		X			need to clarify
PCAO 3/21/14	15	ADEQ must review the final MPO before it can certify that discharges will not violate SWQS.		X			is the final MPO available? 5/1 call to K Arnold

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PCAO 3/21/14	16	PC requests a public hearing on the antideg review prior to finalization of this permit (sic). If ADEQ finalizes the permit w/o public review, PC request a public hearing be provided when the permit is amended.				X	what permit? APP or 401 Cert?
PCAO 3/21/14	17	SWCA memo "Revised Analysis of Surface Water Quality" shows stormwater in Barrel Canyon does not meet all SWQS. No further degradation is allowed in Tier 1 waters. Cert is premature until additional baseline characterization is done and possible 303(d) listing. There is no source identification for the observed metals. There may be both point and nonpoint sources throughout the watershed from historic mining.		X		JS9/TEAM	would any waters be listed with the data we have?
PCAO 3/21/14	18	Many APP regulated facilities are in areas where depth to groundwater is less than 20 feet. There is potential for interchange between groundwater and WUS in these areas where dredge & fill will occur.	X				
PCAO 3/21/14	19	Applicant has not demonstrated how native material will be free of pullutants. The sources of material are unknown. How will this be demonstrated?				APP	check out - can APP address?
PCAO 3/21/14	20	Under what conditions can truck tires be used as revetment?					What do we expect?
PCAO 3/21/14	21	The FEIS assumes that metals are mobilized only from acid-generating rock - but this has not been proven. Inert or acid-neutralizing waste rock shall be used to build haul roads and buttresses around waste rock and tailings to provide buffer zone.					clarify
PCAO 3/21/14	22			X		MSGP?	talk to team

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PCAO 3/21/14	23	RCC is like Oracle Ridge mine - a copper skarn w/ abundant limestone. At OR, stormwater monitoring shows mobilization of metals in runoff and spring water from the mine - despite host rock is limestone, pH is alkaline and hardness very high. OR has exceedances of Cu, As, Be, Cd, Pb.		X		TEAM	talk to team
PCAO 3/21/14	24	same as #22: 404 application states mine haul road will be constructed using material from the open pit. How will RCC demonstrate attaining SWQS if using this waste rock from roadway crossings, roads and other facilities.		X		MSGP?	will MSGP cover this?
PCAO 3/21/14	25	Condition 5.1 - ADEQ should formally request the COE suspend mining operations until such time that water quality issues have been remedied by RCC.		X			clarify
PCAO 3/21/14	26	Similar to the SWPPP, every worker employed or contracted by RCC should be trained regarding the 401 Cert conditions, be provided a personal copy of the Cert and systematically be monitored by designated individuals to ensure day-to-day compliance.	X				condition is similar to SWPPP
PCAO 3/21/14	27	Condition #2 states "applicant shall notify ADEQ w/in 30 days of project completion". Since this mine will operate for 20-30 years, ADEQ should evaluate site conditions on a regular basis and during reclamation and closure. Also many mining projects have long periods of stoppage that should be addressed.			X		should be addressed
PCAO 3/21/14	28	Condition #4 references "the application and supporting documents" which cover a variety of mine design alternatives. The permit must clearly provide reference for what activities are covered.			X	Dennis	clarify
PCAO 3/21/14	29	Condition #4 should explicitly exclude the heap leach discharges described in the FEIS and the original application.			X	Dennis	OK

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PCAO 3/21/14	30	ADEQ should require a mitigation plan that reduces the need to permanently place mine waste in WUS. ADEQ should require closure design that places mine waste back into the pit which would be a practicable alternative under 40 CFR 230(5)(C). Placement of mine waste may also conflict with AAC R18-11-108(D).	X	X			check the 108(D) reference
PCAO 3/21/14	31	Backfill of the pit is technically practicable and would significantly reduce the amount of waste that must be disposed and lessen impacts under 404(b)(1) alternatives analysis.	X				
PCAO 3/21/14	32	Backfilling would reduce the impact to the WUS including significantly less reduction in annual downgradient stormwater flow.	X				
PCAO 3/21/14	33	ADEQ should participate in the USFS permit coordination committee				x	OK
PCAO 3/21/14	34	PC agrees there should be a surface water mitigation program				x	ok we're on the same page
PCAO 3/21/14	35	180 days is too long and has no schedule for implementation.		X		TEAM	
PCAO 3/21/14	36	It is unreasonable to require a demonstration that impact has occurred before requiring mitigation. This will allow resource degradation for years.		X			clarify
PCAO 3/21/14	37	The mitigation program should consider use of water derived from the pit dewatering wells to offset the reduced stormwater flows during mine operation. Water must be tested against SWQS.			X		good idea
PCAO 3/21/14	38	What modeling would prompt suspension of the permit. For water quality, direct monitoring should be required. What is the threshold for "adversely affected"?			X	TEAM	ADEQ can't require monitoring so how will be follow and evaluate?
PCAO 3/21/14	39	Condition #1 of 5.2 focusses on avoiding 17.2% reduction in stormwater flows but actual flow volumes will be much more during operations. 17.2% isn't the right number to achieve.			X	TEAM	talk with team
PCAO 3/21/14	40	Public and cooperating agencies must have an opportunity to review and comment on draft mitigation program			X		MAF/HRD Q - ok same as we did for the Cert

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PCAO 3/21/14	41	Cooperating agencies must have the opportunity to review and comment on the monitoring, assessment and hydrologic modeling data used to justify whether damage has occurred. PC suggests a technical review team of individuals who are not invested in the outcome of such an analysis. Or make assumptions about the amount of water being withheld by the mine and require that amount to be compensated.			X		MAF/HRD Q - ok same as we did for the Cert
PCAO 3/21/14	42	ADEQ must specify for what period of time RCC must implement mitigation measures. Should a persistent 20% reduction in avg annual runoff volume be observed at the end of the 25-year mining operation, for what period of time would the mitigation measure be in effect?		X		TEAM	talk to team
PCAO 3/21/14	43	Specify whether or how any of the mitigation measures listed in the Cert will be utilized to quantify impacts to future d/s water quality as a result of filling 40 acres of WUS? As opposed to potential adverse impacts to surface water quality attributable to the entire mine complex related to discharges d/s into Barrel Canyon?					Huh?
PCAO 3/21/14	44	The MSGP conditions #2 & #3 are not applicable to discharges to OAWs. Given the presence of an OAW "exceedance of a SWQS" is not an adequate standard to evaluate whether water quality has been	X				agree but there are no direct discharges to OAWs -- CPH?
PCAO 3/21/14	45	lowered. TDS has relevance for the character of the riparian vegetation and macroinvert communities. TDS at OR have been as high as 1200 mg/l.	X				no standard
PCAO 3/21/14	46	PC requests ADEQ ask for the SWPP and SAP for the MSGP as part of the 401 Cert.		X			under review - are we requiring any sampling in the SWPPP?
PCAO 3/21/14	47	With reference to #4 of 5.2, please specify what monitoring will be in place to determine if unimpacted stormwater has come into contact with mining operations		X			SWPPP/MSGP

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PCAO 3/21/14	48	Erosion Prevention & Hydraulic Alterations: Specifics are needed to prescribe how clearing, grubbing, scraping and erodible surface exposure will be minimized.				X	
PCAO 3/21/14	49	Please define "excessive erosion". Examples are good but standards are better.				X	
PCAO 3/21/14	50	PC agrees with #5 - please work with USFS to reduce the removal of soil from WUS. PC believes the FEIS/ROD will allow exposing erodible surfaces that will enhance erodibility.	X				
PCAO 3/21/14	51	The 401 application description of clearing and grubbing is at odds with condition #5.		X		BOB	check out
PCAO 3/21/14	52	Condition #6 needs to describe measures that can and will be used to control erosion.					
PCAO 3/21/14	53	Harmful or toxic substances need definition per ARS.					
PCAO 3/21/14	54	Condition #6 would support a conclusion that harmful or toxic substances would be discharged into streams. The Cert cannot be issued until the applicant demonstrates it meets this condition.		X		BOB	check out
PCAO 3/21/14	55	Condition #7 - what erosion control, sediment control and/or bank protection measures" are being referenced? Those in the FEIS alternative or permit application -- as they differ??		X		BOB	check out
PCAO 3/21/14	56	Condition #8 - please specify who shall re-evaluate the effectiveness of pollution control measures, and by when. PC suggests that the permittee provide ADEQ with quarterly report of its evaluations and repairs/modifications.		X			
PCAO 3/21/14	57	Condition #8 - PC believes this language is inconsistent with information in the draft 2013 SWPPP. PC states there are now three compliance points dams - inconsistency		X		bob/dennis	are the dams in or out?

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PCAO 3/21/14	58	Will sediment releases due to overtopping and/or failure of the compliance point dams continue until such time ADEQ determines "subsequent discharges will meet SWQS?"		X			huh?
PCAO 3/21/14	59	Condition #10 is very general. Specificity is needed -- such as "rooting shall be protected from erosion by anchoring..."					
PCAO 3/21/14	60	Condition #12 - PC has concerns about the adequacy of the compliance point dam. The dam allows for some setting of sediment and provides a convenient place to collect samples but it doesn't stop stormwater from flowing d/s.		X		dennis	dams again
PCAO 3/21/14	61	Conditions #11 & #12 reference the need for detention/retention structures that "cause no significant change to the hydraulic conditions d/s". The purpose of det/ret structures is to change hydraulic conditions d/s. PC recommends they be built to mimic pre-mine hydrology, hydraulics and sediment transport regimes.		X			
PCAO 3/21/14	62	Reveg requirements need a performance standard including baseline evaluation to determine reveg target.		X			
PCAO 3/21/14	63	Condition #15 is at odds with the intention to the compliance point dams will be unstabilized.		X		dennis	dams again
PCAO 3/21/14	64	Condition #15 - if there can be no alteration of flow in the impacted WUS, this would require that RCC provide greater detail about the chronology and location of impacts.					
PCAO 3/21/14	65	Condition #17 is meaningless unless ADEQ requires RCC to establish and document pre-project conditions on the WUS for stream slopes, meander values, roughness, hydraulic radii, etc...		X		team	
PCAO 3/21/14	66	SEDIMENT LOADS: Condition #17 - how will stability be defined and how will erosion and sediment loads be monitored w/o specific thresholds?				team	

Commenter	#	Comment	Not w/in ADEQ purview	Check out	Change	N/A	Comments
PCAO 3/21/14	67	Conditions #18 & #20 need further specificity and a monitoring frequency and protocol should be referenced.					
PCAO 3/21/14	68	Condition #18 should be modified to a specific flow (peak discharge or erosive velocity).				team	
PCAO 3/21/14	69	Condition #19 references a comparison with "natural background levels of sediment" - have these measures of silt content or turbidity been determined? If yes, cite them. If no, provide a method to determine what these are.					
PCAO 3/21/14	70	POLLUTION PREVENTION: FEIS provides no demonstration that discharges from RCC will not degrade existing water quality in the OAWs.				x	see basis
PCAO 3/21/14	71	ADEQ should evaluate the assimilative capacity of Barrel Canyon or Davidson Canyon to absorb the pollutants emitted from the mine.				x	see basis
PCAO 3/21/14	72	Has ADEQ concluded the OAWs will not be impacted?				x	see basis
PCAO 3/21/14	73	FEIS offers contradictory statements about SWQS being met now or in the future in Barrel Canyon.		X			check data - Montgomery report?
PCAO 3/21/14	74	Given the exceedances in water quality in Barrel Canyon, how can activities meet condition #21? Total loading will increase with dredging.		X		bob	team?
PCAO 3/21/14	75	Facility design directs stormwater into fractured bedrock aquifers that discharge to springs and seeps in the area. No liner to prevent infiltration.		X		APP	can APP address?
PCAO 3/21/14	76	Discharges from APP facilities shall not cause a violation of SWQS. Cert should include a requirement to monitor at aquifer POCs for Se, Cu, As, & Hg.	X			APP	can APP address?
PCAO 3/21/14	77	Application allows waste rock on top of Rosemont and McCleary Springs. Both are located in WUS. SWQS will be impaired.				X	Cert addressed impacts of 404 activities
PCAO 3/21/14	78	Boilerplate condition #22 does not appear to be developed with this mine proposal.		X		BOB	check out

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PCAO 3/21/14	79	Condition #22 appears internally inconsistent in that it prohibits pollutants in fill but allows use of mining residue as fill.		X		bob	
PCAO 3/21/14	80	Condition #23 it is unclear what materials and techniques RCC is employing while they are working in WUS. Cert should be conditioned on sampling of source waters from the temporary and permanent waterbodies created. This characterization sampling is necessary in order to know what constituents should be samples in the d/s waters.				MSGP?	can MSGP address? Cert can't require monitoring
PCAO 3/21/14	81	The purpose of some fill activities is to create ponds to retain/detain stormwater. Sampling should be done to ensure these ponds meet SWQS. PC question if these new ponds are regulated under SWQS.				APP?	can't require monitoring
PCAO 3/21/14	82	PC asserts fill activities will create unplanned surface waterbodies around the perimeter of the site where natural flows are blocked or drainage collects. Cert should be conditioned upon quarterly or more frequently visual surveys.	X			APP?	can APP address?
PCAO 3/21/14	83	Repeat of 82 - require monitoring of these unplanned waterbodies for As, Se, Cu, & Hg.	X				can APP address?
PCAO 3/21/14	84	Include annual reporting of the locations of these new surface waterbodies and conditions to ADEQ and the interagency permitting committee by the USFS.	X				can APP address?
PCAO 3/21/14	85	Cert should require post-closure pit lake monitoring to assess potential toxicity to wildlife. PC claims the pit lake must meet A&W Warm water for As, Se, Cu & Hg.	X				pit lake is not a WUS
PCAO 3/21/14	86	PC agrees that stormwater quality has never been sampled in Davidson Canyon. Special sampling equipment should be installed.		X			ROD requires
PCAO 3/21/14	87	Baseflows in Davidson Canyon should be monitored for A&W standards. Baseflows are critical parameters for wildlife.				X	ROD requires

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PCAO 3/21/14	88	The OAWs are located on County and District lands. PC asks ADEQ to recognize the county's authority to permit and condition access to our lands. RCC recently submitted an application to site gw and sw quality sampling State Trust lands in Davidson Canyon, however, this site is not on the OAW.				X	will capture above flows
PCAO 3/21/14	89	TEMPORARY & PERMANENT STRUCTURES: Permanent structure should be sized to accommodate at the the 100-year flow. The condition, as written, leaves it to RCC to decide what is "adequately sized to handle the expected flow". w/o identifying the design flow, there is no assurance it can handle flows of concern. PC believes the methods to determine flows in the FEIS are not adequately conservative or accurate to be used to size structures.		X			discuss w/ team
PCAO 4/4/14		PC has concerns with ADEQ's statement of basis as it is largely supported with facts from FEIS which the county finds faulty in numerous aspects.	x				
PCAO 4/4/14	1	Stormwater & Sediment Transport: FEIS only discusses annual average sediment delivery. FEIS does not consider cumulative impacts on sediment yield, delivery and channel geomorph over the active mine period and post-closure.			x	Team	revisit the 17.2% post closure issue
PCAO 4/4/14	1	Concerns with the Patterson & Annadale assessment because it was not a thorough study (2-day visit), not sealed by a PE or PG but is essentially a statement of professional judgement, doesn't break out current from proposed conditions, and the effects of grade controls when sediment supply is cut off.				Team	
PCAO 4/4/14	1	Change in runoff during pre-mining and active mining is far grater than 17.2% at closure/post-closure.				team	

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PCAO 4/4/14	2	Impacts of Reduced Flows and increased TDS on Riparian Vegetation in CC - the reduction in the amount of high quality (lower TDS) water, along with the added TDS from the mining operations, could have a profound effect on the cottonwood/willow forest of CC.					team
PCAO 4/4/14	2	To ensure no degradation to the OAWs, it is incumbent on the applicant to address impacts to water quantity and the timing. Southern AZ bi-model precipitation pattern heavily influences groundwater recharge. Climate predictions further complicate the picture. The analysis needs to identify the amount of water the RCC needs to contribute to the system to make up for losses resulting from the proposed impoundment and use of water.					team one way to approach the mitigation
PCAO 4/4/14	2	Reduction in baseflows to CC will result in increased surface water temperatures and less shading canopy due to anticipated decline in cottonwood trees.					x not if they replace 1:1
PCAO 4/4/14	3	Review of Isotope Data - ADEQ's decision the LDC is not hydraulically connected to the regional aquifer that would be impacted by pit dewatering is flawed because ADEQ did not independently review the primary data and instead relied on reviews by Tetra Tech and SRK.					Montgomery & Associates 2009 report
PCAO 4/4/14	3	PC interprets the primary data very differently from TT and believes the OAW is connected to the regional aquifer.					Montgomery & Associates 2009 report
PCAO 4/4/14	3	PC asserts that TT obscured certain facts in the Montgomery report such as the true Global Meteoric Water Line because it didn't fit their preferred interpretation. The slopes of the local data and the values of the PC wells considered as a group both show substantial influence from natural evaporation during precipitation, runoff and/or recharge.					Doug? Montgomery & Associates 2009 report

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PCAO 4/4/14	3	PC states issues with TT representation of local meteoric water line and that the data used by Wagner (2006) is insufficient in number to define LMWL. Souce Dr. Eastoe					Montgomery & Associates 2009 report
PCAO 4/4/14	3	PC supports the Montgomery LMWL which has a more robust data set. Dataset provided by Dr. Eastoe					Doug?
PCAO 4/4/14	3	The effects of evaporation on isotopes in rainfall at Palisades is much less developed than lower elevations near Tucson. The stable isotope distributions at the mine site are likely between Palisades and Tucson. TT did not consider evaporation trends in their interpretation.					Doug?
PCAO 4/4/14	3	Dr Eastoe refutes TT claim that RCC groundwater in the PC wells represents winter recharge					Doug?
PCAO 4/4/14	3	same as #3. TT omitted well data that did not support their hypothesis.					
PCAO 4/4/14	3	Major chemistry in the wells reflects multiple water sources					team
PCAO 4/4/14	3	TT fails to plot or dicuss a sample in LDC. This sample is similar to the pit wells data.					
PCAO 4/4/14	3	PC plots PAG 2003 data which plots within the trend line defined by mine area groundwater. It does not plot below the trend line as would be expected if it were from "local springs".					Doug?
PCAO 4/4/14	3	TT interpretation ignores variability in dates for DC surface water samples.					team
PCAO 4/4/14	3	PAG noted in 2003 that stable isotope data between DC#1 and DC#2 varied markedly.					team
PCAO 4/4/14	3	Montgomery's October 2008 sample was collected close to the DC#2 site and shows a mix of high elevation and low elevation runoff by virtue of its position within the trend line by the rest of the RCC data. The 2008 DC sample plot in a very different location than the PAG values but solidly along the same trend.					team

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PCAO 4/4/14	3	ADEQ has failed to consider the alteration of transmission losses and thus recharge processes through the diversion, capture and impoundment of surface flows in its antideg analysis.				team	
PCAO 4/4/14	3	How will clearing and grubbing of soil above the bedrock affect transmission losses and recharge? How will filling of entire valleys with waste rock and tailings affect transmission losses and recharge? How will changes in groundwater gradient induced by the pit lake alter the direction of underflow towards DC?				app?	
PCAO 4/4/14	3	Pit dewatering strategies have changed. New data shows that pit dewatering cannot be accomplished with wells and RCC will have to install costly drains in the Willow Canyon and basin fill in order to dig the pit.		X		team	
PCAO 4/4/14	3	PC takes issue with ADEQ's conclusion that springs in DC are not connected to regional aquifer. In areas where groundwater observations indicate that there have been declines in the regional aquifer, cessation of flow in a nearby spring would be consistent with a connection to the regional aquifer.				doug?	
PCAO 4/4/14	3	The modeling of waste rock seepage is faulty. The analysis predicts there will be essentially no seepage through waste rock facilities. The modeling used parameters in which the conductivity for relatively dry rock is six orders of magnitude less than when saturated and would allow the wetting front to move through unsaturated waste rock only very slowly. FEIS must present data justifying the conductivity parameters and using a sensitivity analysis.				team	PC comment also references the leach pad so not sure how current this particular argument is. Can the APP require monitoring at the likely exit points?
PCAO 4/4/14	4	The FEIS ignores the high probability of preferential seepage flow in the tailings and waste rock piles.				app?	

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PCAO 4/4/14	4	The FEIS waste rock seepage monitoring plan will not result in adequate seepage impact evaluation. The plan calls for two points to be monitored for moisture content but preferential flow could occur anywhere. ADEQ should require detection and reporting of any inadvertently created surface water features created by compliance point dams. These new waters should meet SWQS.				app?	
	5	Objections to Stormwater Management - PC believes the impacts to d/s stream waters is far greater than predicted in the FEIS				X	