

**Comments Received to-Date on the Draft 2018 Base Case Projections  
Version: December 21, 2005**

Commenter	Comment	Affects 2002?	Response
Alice Edwards, AK DEC, via email 10/6/05	1. We totaled each pollutant for all units/processes at the facility and compared it to the overall PTE in the permit. When a projection exceeded the PTE, we highlighted it in bright yellow in column AJ. In column AL we took the PTE for the pollutant and spread it across the various units based on the 2018 projections. So for those projections that exceeded the PTE you should be able to replace the value in column AJ with the value in column AL. A comment field indicates what the PTE is for that pollutant for that facility (if needed it indicates which units it applies to; some units had specific NOx limits.) For those pollutants/units that did not exceed the permit PTE, we did make a note that it was not exceeded and what the PTE was...	N	ERG will revise the projections for the sources/records as shown in AK DEC's spreadsheet for 2018.
	2. Alaska recently reached an enforceable agreement with British Petroleum and Conoco Phillips that means they will reduce the sulfur content in their diesel fuel for all their stationary sources to 15 ppm or less before 2018. We would like to have this reflected in the 2018 projections for those facilities. I have highlighted in column AJ in bright green the SO2 projections for those facilities, but I am not sure the best way to make an adjustment to the projection.  10/31: Sent spreadsheet containing facilities and existing S content to be affected by agreement.	N	One way to accomplish this would be to determine current S content of diesel from affected facilities, and reduce SO <sub>x</sub> emissions accordingly.  ERG will make these adjustments using data received from AK DEC.
	3. There were two facilities that I had a hard time mapping to one of our permits (there were more than one possibility) for the PTE comparisons and these facilities may be duplicated in the spreadsheet. I have highlighted those records with a light yellow background. They are CHENA and ALASKA ELECTRIC LIGHT & POWER. I was not sure whether CHENA is the same as the Aurora Energy Chena Power Plant (which is also in the spreadsheet) or the GVEA Chena 6 Power Plant (which is not in the spreadsheet). I think the ALASKA ELECTRIC LIGHT & POWER facility may be the same as the AEL&P Lemon Creek facility (which is also in the spreadsheet) but there is also a generating station AEL&P Auke Bay. I don't know if there are any other identifiers that are in the data set that might help us sort this out. Because of the additional pollutants that are in the CHENA and ALASKA ELECTRIC LIGHT & Power records, I don't think this data came from DEC's submittal to the NEI.	Y	ERG determined that CHENA and ALASKA ELECTRIC LIGHT & POWER records are not needed in the 2002 EI. We will remove these from 2002 and 2018 EIs.
	4. I was unable at this time to check the Elmendorf AFB records against the permit PTE. Elmendorf now has multiple permits and I wasn't able to figure out how to match up the units and emissions to those permits. For this reason, you will not see edits in Column AL for this facility. I was also not able to verify the PTEs for the Unocal Granite Point tank farm.	N	ERG will not make any changes to the 2018 projections for Elmendorf ARB and Unocal Granite Point tank farm.
Latha Toopal, AZ DEQ, via email 9/22/05	Attached is a spreadsheet listing the post-2002 data for 3 sources, Douglas Lime Plant, Benson Compressor Station and North Star Steel. While Douglas Lime plant restarted operations in October 2004, Benson did not operate in 2004. North Star Steel (now Nucor Steel Kingman LLC) has	N	ERG will make these changes.

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	terminated their air quality permit. Also listed is the stack data for Benson Compressor Station.		
	One unit for Douglas Lime Plant is listed for NOx emissions. The Emission Unit ID is 1 and the Process ID is 1. This unit is a Primary Screen and only PM and PM10 emissions are emitted. I am not sure if this was an error or incorrect ID's have been used.	Y	ERG will correct this problem and review the NOx emissions from 2002 and 2018 EIs.
	There is another major source of HAP that is pending. I am not sure if this facility needs to be added. The facility name is North American Sleek Craft Inc. Let me know if you need the PTE info for this facility. The facility is currently operating.	N	ERG will not add this facility in the absence of actual emissions data.
Latha Toopal, AZ DEQ, via email 9/28/05	1. There are 29 minor sources that have been carried forward from past inventories. These 29 sources account for 1% of the total baseline emissions. Some of these sources have been permanently closed. Either they should be excluded or listed separately. I have attached an excel spreadsheet listing all the minor facilities.	Y	ERG will exclude these minor sources from the 2002 and 2018 EIs.
	2. A number of facilities have been listed with both old and new ID's. The old ID's need to be deleted. Following are the list of facilities: a. Mojave Topock Compressor Station/Topock Compressor Station - Current Facility ID 401515581 and Old ID is 401500815. b.. Sierrita Mine - ID's - 40191567 and 400714620. The correct one is 40191567. I wonder how they got listed under 2 different counties. c. Phoenix Cement Company - Old facility ID - 402500421, Current ID is 40252393 d. Yuma Cogeneration Associates - Old ID-402700141, New ID is 4027492 e. Copper Mountain Landfill - Current ID -40277178	Y	ERG will make these corrections in the 2002 and 2018 EIs.
	3. Lake Havasu City Landfill - ID 401500000 - This facility is not permitted.	Y	ERG will remove this.
	4. South Point Energy, LLC, - ADEQ has not permitted this facility.	Y	ERG will remove this.
	5. Two sources, EPNG -Window Rock and Navajo Generating Station have the Tribal Code set to "0". These are located on Tribal land.	Y	We will change the tribal code to 780 for Navajo Nation. The EPNG-Window Rock site was taken from the 1999 NEI and will be removed, rather than transferred to tribal land.
	6. Facility ID 54 -Magma Copper is now called BHP Copper.	N	ERG will make this change (post-2002)
Latha Toopal, AZ DEQ, via telephone 10/3/05	There are some duplicate records in the projections that are under old facility IDs. These need to be removed. Will send an email listing the records to remove. One example is the EGUs for Salt River Project and Coronado Generating Station are apparently duplicated for CO and VOC.	Y	ERG will make these changes in coordination with comments from SRP (below).
Latha Toopal, AZ DEQ, via email 10/6/05	I have completed a thorough review of the Point source data. Quite a few errors were noted. We have a few sources that need to be deleted. When we revised our facility IDs after we moved to an Oracle-based system, we indicated this to EPA and they stated that the IDs would be changed. Looks like not all the IDs have been changed. Some of the facilities are hence listed twice. There are some pollutants that are duplicated. Looks like they were manually entered and not from NEI.  I have the following files attached:	Y	ERG will make all changes requested by ADEQ. All deletions/revisions affect both 2002 and 2018 emissions.

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	<p>Errors.xls – All facilities that either need to be deleted or revised. I have them color coded. Yellow for deletion and green for revisions. I also have comments stating so in the last column. I have also attempted to note the line # in the first column from your original spreadsheet.</p> <p>AZ_Projections_Errors.xls – This is the original file for AZ where I have highlighted the rows that need attention.</p> <p>Let me know if you have questions and I will be glad to explain them. Thank you.</p>		
<p>Randy Sedlacek, AZ DEQ, via email 10/7/05</p>	<p>[Main text of memo received from AZ DEQ:] Air Quality Division staff reviewed the projected changes for Year 2018 Arizona Area Source Emissions for reasonableness. However, they were not able to do a rigorous review of the projected emission changes for the majority of the Arizona Area Sources since the underlying inputs and assumptions that were used in the EGAS and EIA projection models were not provided by ERG.</p>	<p>N</p>	<p>General information is contained in the Reviewer’s Memo that accompanied the draft 2018 projections: <a href="http://www.wrapair.org/forums/ssjf/documents/eictts/projections.html">http://www.wrapair.org/forums/ssjf/documents/eictts/projections.html</a></p> <p>ERG will provide details on the EGAS and EIA model inputs in the draft and final reports.</p>
	<p>A case in point is the projected emissions from agriculture. Since ERG provided data on the number of Arizona harvested acres in Year 2002 and Year 2018, Air Quality Division Unit staff were able to compare these data with recent trends in Arizona harvested acres. It was found that ERG’s projected increase in Arizona harvested acres did not correspond to recent trends cited by USDA staff that harvested acres in Arizona are decreasing. The following text lists the Air Quality Division’s specific recommendations for the Arizona Area Source portion of the draft WRAP Year 2018 Emissions Inventory (EI):</p> <p>C <b>Reduce Agricultural Acreage In Year 2018</b> – The WRAP Year 2018 EI spreadsheet for Arizona Area Sources shows a growth factor of 1.0361 for harvested acres in Arizona between the Years 2002 to 2018 and lists 226,900,000 acres for Year 2002 and 235,100,000 acres for Year 2018. These harvested acre data appear to be total harvested acres for the United States and not total harvested acres in Arizona. The Year 2002 Census of Agriculture: <a href="http://www.nass.usda.gov/census/census02/volume1/az/st04_1_008_008.pdf">http://www.nass.usda.gov/census/census02/volume1/az/st04_1_008_008.pdf</a> lists Arizona’s harvested acres as decreasing over time between Year 1997 and Year 2002 (1,026,359 harvested acres decreasing to 887,966 harvested acres, respectively). This corresponds to a “growth” factor of 0.87 for this 5-year period, and extrapolating to Year 2018, a factor of 0.65. This reduction in agricultural land, due mainly to conversion from agricultural uses to residential / commercial uses, has also been observed in ADEQ air quality studies in Maricopa County and Yuma County. However, projected increases in agricultural land on tribal nations in Arizona may offset the projected decreases in agricultural land due to conversion to commercial and residential uses. Thus, the Air Quality Division recommends that Arizona’s total harvested acres be held constant between the Years 2002 and 2018.</p>	<p>N</p>	<p>Since state-level USDA acreage projections are not available, the only feasible approach was to use the national average as provided by USDA (1.036), and then receive comments from individual states regarding their reasonableness.</p> <p>ERG will change the growth factor for AZ harvested acres between 2002 and 2018 to 1.0 (no growth).</p> <p>10/2705: Maricopa County AZ has been consulted on this issue, and concurs with this approach.</p>
	<ul style="list-style-type: none"> <li><b>Additional Area Source Categories</b> – It appears that some area source categories were not</li> </ul>	<p>N</p>	<p>These emission categories</p>

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	<p>included in the WRAP Year 2018 EI, at least for some Arizona counties. For example, it appears that the source categories of lawn and garden equipment, recreational boating (Arizona has one of the highest per capita boat ownership in the United States), prescribed fires and wildfires, and open burning were not included. The Air Quality Division recommends that emissions from lawn and garden equipment, recreational boating, prescribed fires and wildfires, and open burning be included in the WRAP Year 2018 EI.</p>		<p>were not part of the scope of this point and area source inventory, but are addressed elsewhere in the WRAP effort. The scope of this particular point/area 2018 projection is described in the Reviewer's Memo that accompanied the draft 2018 projections.</p>
	<ul style="list-style-type: none"> <li>• <b>Review Manufacturing Growth Assumptions</b> - The growth factor, 3.5658, in the WRAP Year 2018 spreadsheet for Industrial and Commercial Machinery and Computer Equipment (SCC codes in the SIC 35 category) in Arizona appears to be too high. Arizona has not had major growth in the manufacturing sector during the recent past. Established corporations have been sending manufacturing operations out of the country. With free trade agreements such as NAFTA and lower wages in Mexico, the trend seems to be loss rather than growth in this sector. The Air Quality Division recommends that ERG review the assumptions used to develop the manufacturing growth factor for Arizona to ensure that it is not overly optimistic.</li> </ul>	N	<p>ERG used the EGAS-generated growth factor for these SCCs, which is consistent with the WRAP-wide method selected for this project. Note that AZ's total projected emissions for the SCCs in the SIC 35 category (an area source) is 400 tons of VOC. While the growth factor may be overestimated, changing it would have little effect on the overall inventory for AZ or the WRAP. However, if AZ DEQ provides an alternative growth factor, then ERG can replace the 3.5658 factor in the 2018 base case calculation.</p>
	<ul style="list-style-type: none"> <li>• <b>Review Growth Factors Based on Population</b> – Many of the growth factors in the WRAP Year 2018 spreadsheet have the exact same value for each county in Arizona. The Air Quality Division recommends that ERG use the county population growth factors compiled by the Arizona Department of Economic Security for those Arizona growth factors based on population.</li> </ul>	N	<p>The most recent version of EGAS (5.0) does not currently allow input of external population data (i.e., this functionality is not working). Therefore, ERG was not able to use population growth data from external files with the EGAS model (e.g., from Maricopa County). Due to this model limitation, the Projections Work Group has agreed not to pursue use of</p>

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			other population growth projections.
	<p><b>Arizona’s General Recommendations</b>  It is difficult for staff to easily review the large spreadsheets of emissions, projections, and reductions in the current format provided by ERG, especially under the limited time constraints requested by ERG. For example, some of the spreadsheets contained 10,000 lines and close to 2,000 growth factors. The calculations and assumptions used by ERG should be transparent to the reviewers.</p>	N	<p>The format of the spreadsheets, including the level of detail they provide, was thoroughly vetted through the WRAP SSJF/Projection Work Group (which includes a Maricopa County representative). Additional detail on model inputs and assumptions will be provided in the draft and final reports.</p>
	<p>For future ERG requests for review of emissions inventories, Air Quality Division staff recommend the following items:  C <b>Documentation</b> – Provide more documentation on the inputs and underlying assumptions used to calculate the future year emissions inventories. This should include an explanation of the how the EGAS and EIA models work, and specific notation with the growth factors in the spreadsheets (e.g., there are 1,806 growth factors in the Arizona Area Source spreadsheet. It would be useful to have short explanations of the basis for the growth factors in the spreadsheet). Also, it was unclear from ERG’s documentation of the source for the EIA model, source for USDA agricultural data (e.g., from Census of Agriculture), and which version of the EGAS model was used.</p>	N	<p>ERG will include details on the EGAS inputs/outputs, and EIA outputs that were used in the projections. These details will be included in the draft and final reports. As appropriate, we will add details to the spreadsheets (e.g., USDA reference).</p>
	<ul style="list-style-type: none"> <li>• <b>Trends</b> – Percent change data and graphs showing the change in emissions between Year 2002 and Year 2018 would assist reviewers in assessing the reasonableness of projected emission changes.</li> </ul>	N	<p>ERG has developed these; they are posted on the WRAP/SSJF/Projections Work Group web page under Draft Documents: <a href="http://www.wrapair.org/forums/ssjf/documents/eictts/projections.html">http://www.wrapair.org/forums/ssjf/documents/eictts/projections.html</a></p> <p>ERG will update these tables after incorporating changes based on comments received, and post them for review. Additional summary tables with more detail will be provided.</p>

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	<ul style="list-style-type: none"> <li><b>Text Labels</b> – Converting FIPS to county names and converting SCC codes to descriptive names of the emission source categories would assist reviewers since they would not have to convert these codes themselves.</li> </ul>	N	ERG will do this in the final version of the spreadsheets.
	<ul style="list-style-type: none"> <li><b>Other State’s Comments</b> – Compile a table of all reviewers’ comments and how ERG responded to the comments. Providing this table back to the reviewers would help ensure that all major areas of the emissions inventory review have been addressed.</li> </ul>	N	ERG has developed this table and will post it after all comments are received.
	<p>In summary, it is essential that all technical and administrative limitations for each growth factor, and any assumed emissions reductions due to control measures, be discussed and evaluated before the final methodology and calculations for the WRAP Year 2018 Emissions Inventory are accepted. This will ensure that the highest quality emissions inventory is used for WRAP modeling.</p>	N	<p>The draft and final reports will discuss the general technical and administrative limitations of the growth factors (e.g., state-level versus county-level); however, individual limitations for “each growth factor” will not be discussed unless particular factors stand out as highly uncertain due to limited data or other issues.</p> <p>The draft and final reports will include a discussion of the controls applied.</p> <p>All WRAP members will be provided opportunities for review and comment on all work products, reports, etc. from this project.</p>
Bob Downing, Maricopa Co., AZ, via email 11/10/05	<p>I concur with your proposal to add the following EGUs to the 2018 inventory: APS West Phoenix Power Plant (CC5a and CC5B). These units came on line during 2003. “...we’ve discovered some errors in the present versions of the NEI and WERAP EDMS data bases for EGUs in Maricopa County. A number of facilities here have a mix of units, some of which report data to EPA/CAMD and others, which do not. We recently noted that EPA’s data augmentation procedures, in which state-supplied NOx and SOx emissions data is replaced by data reported from the utilities to CAMD, only looked at the entire facility level, and thus inadvertently deleted valid emissions data...the Ocotillo Power Plant...APS West Phoenix...Kyrene.” (Mr. Downing provided a spreadsheet with the missing units/emissions.”</p>	Y	<p>All changes were made to the 2018 base case (EGUs/emissions were added that had been dropped via augmentation). However, the changes for Ocotillo, APS West Phoenix, and Kyrene that impact the 2002 emissions were <u>not</u> made to the 2002 inventory; these could be made if/when that inventory is revised.</p>
Curtis Taipale,	Regarding new “future” power plants, for purposes of the projections, place them as follows:	N	The procedure for siting of

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Roy Doyle, Dave Thayer, Ray Mohr, CDPHE, via telephone 10/4/05	1 coal-fired EGU @ existing Lamar Power Authority NG plant. 1 coal-fired EGU @ existing Pawnee plant (FIPS 08-087) 1 coal-fired EGU @ existing Comanche plant (FIPS 08-101) 3 NG EGUs in Garfield Co. (FIPS 08-007) 3 NG EGUs in Weld Co. (FIPS 08-123) 3 NG EGUs in Archuleta Co. (FIPS 08-007)		future EGUs was changed after the draft spreadsheets were released. Future siting is now based upon new EGU announcements and location of existing EGUs/infrastructure.
Curtis Taipale, Roy Doyle, Dave Thayer, Ray Mohr, CDPHE, via telephone 10/4/05	We submitted corrections to the 2002 NEI to EPA on 9/30/04, which are not reflected in the data contained in the 2002 inventory for WRAP. These changes affected the county codes for several sources, mostly smaller VOC point sources. These may not be worth trying to change in the WRAP projections since visibility impacts would be small relative to other sources.	N	No action by ERG. A review of the files submitted to EPA on 9/30/04 indicates that point source data for 2003 (not 2002) were submitted. Nonpoint source county code changes for 2002 were submitted, but for some reason were not processed (note that ERG is not the EPA nonpoint source contractor, so we have no insight into this problem).
	Area source VOC reductions due to Denver EAC: reduce the condensate tank VOC emissions by 47.5% in the affected counties; this is for 1 SCC (40400311), only.	N	ERG will make this adjustment under "Controls" in the spreadsheet. Note that this is a point source SCC affiliated with o&g point sources.
	Note that SunCor refining recently bought Valero. These will be combined into 1 facility (located across the street from each other) for future inventories.	N	ERG will add this comment to the records for each refinery.
Roy Doyle, CDPHE via telephone 11/8/05	Add two EGUs that came on-line after 2002: Blue Spruce (2003), Rocky Mountain Energy Center (2004)	N	ERG will add these to the 2018 base case.
Chris Ramsdell, ID DEQ, via email 9/30/05	Thanks for all of the information you (ERG) are providing on this data. It is so much easier to understand when it is explained so well. Idaho believes the 2018 point and area source data projections are good as presented by ERG. We feel any exceedances of permit limits, if any, will better allow for the facilities' actual growth than a permit limit would show. Note: At this time, resources do not allow for a detailed review of the permits and comparison to the ERG projections.	N	No response by ERG.
	We would like to add three (3) new EGUs to the 2018 EGU projections. They are as follows: 700 megawatt, coal-fired plant in Jerome 520 megawatt, coal gasification plant in Pocatello 600 megawatt, coal gasification plant in Soda Springs	N	The one future allocated coal-fired EGU was sited in Jerome County.
	Also, we have one question on the data. With the new EGUs, why not apply BACT controls rather than BART? BACT is possibly more controlling.	N	Based on many comments received on this issue, new EGU emissions will be

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			changed to BACT.
Julie Merkel, MT DEQ, via email 9/29/05	<p>The Montana Department of Environmental Quality (Department) has reviewed ERG's Draft Report regarding 2018 projected emissions inventory. The Department has the following concerns and comments:</p> <p>1. The projected coal-fired EGUs for Montana in ERG's report show a prediction of no growth for the state. At this time, Montana has one new coal-fired EGU that will be on line within a year (Rocky Mountain Power), another that is permitted (Roundup/Bull Mountain), and an application for a third (Great Falls - Southern MT Electric Generation and Transmission Cooperative - Highwood Generating Station). There are also a few others that the Department anticipates will submit applications. This appears to be the area of growth occurring in Montana at this time. The Department recommends that Montana should predict at least 3 new coal-fired EGUs in the projected future.</p>	N	The Rocky Mountain Power and Roundup/Bull Mountain EGUs were included in the 2018 inventory. The one additional future allocated coal-fired EGU was sited in Cascade County (i.e., near Great Falls).
	<p>2. The projected natural gas EGU's for Montana predicts 7 new facilities. Currently, the Department has four permitted natural gas EGU's that are not on line. Of those four, one is scheduled to begin operation within the next year. The other 3 (permitted but not built) have no start-up date. The Department does not believe this will be an area of growth in the projected future. The Department recommends dropping the predicted growth from 7 natural gas EGU's to 3 or 4.</p>	N	Based on revised allocations, no future natural-gas fired EGUs are needed in Montana.
	<p>3. There are several Montana coal-fired EGUs (in operation) that are not on ERGs emission inventory list. These include:  Montana-Dakota Utilities Glendive Generating Station (AFS #30-021-0005)  Montana-Dakota Utilities - Miles City (AFS #30-017-0002)  Colstrip Energy Limited Partnership (CELP) (AFS #30-087-0007)  Thompson River Co-Gen (TRC) (AFS #30-089-0009)</p>	Y	ERG confirmed the EGUs and their IDs in the 2002 file with Montana staff. They are all in the file.
	<p>4. PPL Montana, LLC - Colstrip Steam Electric Station's 4 EGU units are listed under Colstrip Energy Limited Partnership -- this is wrong, CELP is a separate facility, not associated with PPL Montana. However, it is located near the PPL Montana Colstrip facility. (Note in comment #3 that CELP is not on the list).  CELP - AFS #30-087-0007  Colstrip Units 1, 2, 3, and 4 - AFS #30-111-0015</p>	Y	ERG confirmed the Colstrip Site ID with Montana staff. In the 2002 file the Site ID is 087-0008. The Site ID 111-0015 in the 2002 file is currently for PPL Montana, JE Corette Plant.
	<p>5. In July 2005, Bob Jeffrey had some correspondence with you (Paula) regarding the Refinery consent decree reductions. Was this enough information regarding this issue, or do you need more?</p>	N	See response to J. Hughes, below.
	<p>6. These questions may have already been answered, but, (a) what is the reason that there are PM condensable for area sources and not for point sources? and (b) Why do some of the area sources with the same SCC code have different emissions numeric values?</p>	N	(a) Some of the PM estimates for area sources were gap-filled by EPA during the NEI development; the point source PM emissions were not gap filled for missing species. (b) County-level emissions for both 2002 and 2018 for certain

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			SCCs were developed using population surrogates, thus the magnitude of these emissions will vary by county population.
Jim Hughes, MT DEQ, via telephone 9/29/05	There are going to be additional NO <sub>x</sub> and SO <sub>2</sub> reductions from refineries in Montana, although these have not been made official and are not yet reflected in their permits. I will try to note these on the spreadsheet.	N	Fine. We will note these anecdotally in the spreadsheets, because the reductions or not yet official.
Lori Campbell, NVDEP, via email 10/7/05	Attached please find 2 spreadsheets: 1. An update to the EGU projections worksheet. I have made changes/updates in red.	N	ERG will make all of these changes (to 2018) as requested by the agency.
	2. An excerpt from your 2018 point and area source EI spreadsheet for Nevada. I've highlighted the Mohave emissions. NO <sub>x</sub> in blue and SO <sub>2</sub> in green. My changes in red reflect the projected emissions that I received from the facility for their future projections emissions (also attached). Regarding NO <sub>x</sub> : these calculations did not project any NO <sub>x</sub> reductions. The consent decree requires the plant to install low NO <sub>x</sub> burners with overfire air on each emission unit. Regarding SO <sub>2</sub> : I have also changed these 2018 projection numbers to red to reflect the estimates outlined in their future projected emissions. These are the only items I found in my review of the 2018 projections. Thank for all your help in this project.	N	ERG will change the Mohave emissions for 2018 as requested by the agency. Also, we will consult with Pat Cummins as his revised projections affect the Mohave power plant.
Lori Campbell, NVDEP, via email 10/12/05	I've been reviewing Pat C's '11 state 2018 coal EGU spreadsheet and I noticed that the BART flag for Reid Gardner's Unit #4 is wrong, so I went back and looked at your big spreadsheet and it seems it is wrong there too. Sorry I didn't catch this before. But unit #4 at Nevada Power, Reid Gardner is not BART eligible, units 1-3 are yes, but # 4 is a no.	N	ERG will change the BART flag for #4 @ Reid Gardner.
Mike Doyle, NV-Clark Co, via telephone 10/7/05	Asked for clarification on information requested related to SCCs, stack parameters, controls on new post-2002 sources. 10/7: Provided detailed stack information for new post-2002 sources.	N	ERG will add details to records for new, post-2002 sources in Clark Co.
Rita Trujillo, NM Env. Dept. via email 10/3/05	Here are New Mexico's comments on the EI data you sent to us. We have no comments on the area source inventory. NM does not prepare its own area source inventory	N	No changes to NM area sources
Heather Lancour, NM Env. Dept.	...closed facilities were added to the 2018 projected EI...ERG requested that I review the 2018 projected EI and identify those facilities that are not supposed to be included in the 2002 EI. There are over 22,000 rows of data in the 2018 projected EI. I propose that instead of reviewing and correcting ERG's 2018 projection EI, I supply ERG with all of the necessary data so that ERG may review and correct its own 2018 projected EI...ERG may contact me with specific data requests. However, I will leave the majority of review and correction to ERG.	Y	See following responses.
	Attached are several files to aid ERG in their review and corrections, such as: 2002 EI Sources.xls is an excel spreadsheet that contains all sources included in the 2002 EI. Please note that: The NMED 2002 point source EI includes major and minor sources, which have an NSR or Title V permit. It includes operational, planned, temporarily closed, and permanently closed sources. The planned, temporarily closed, and permanently closed sources were reported with zero	Y	2002: ERG will remove all sources of status C, P, T, and X.  2018: ERG will remove all

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	<p>actual emissions. [Spreadsheet indicates facilities based on status (O=operating; C=under construction; I=seasonal; L=landfill; P=planned; T=temporarily closed; X=permanently closed).</p> <p>Another spreadsheet was received on 10/14/05: (NM) NonOperatingFacilities With Actuals.xls Comment received on 10/26/05: "Since there are not emissions for the temporarily closed (T) facilities, I vote to take them out."</p>		sources of status C, P, X, and T.
	<p>2. 2003/2004 TV permit info.xls is an excel workbook that contains four spreadsheets:  * issued_TV_03&amp;04 which lists all Title V permits that were issued in 2003 and 2004  * closed_TV_03&amp;04 which lists all Title V permits that were closed in 2003 and 2004  * TV_new_eqpt_03&amp;04 which lists new Title V equipment that was permitted in 2003 and 2004  * TV_rmvd_eqpt_03&amp;04 which lists Title V equipment that was removed in 2003 and 2004</p>	N	<p>In order to include emissions from new facilities and/or equipment, ERG requests emissions at the SCC level from the agency. (Note: NM cannot provide these emissions per Heather's 10/20 email, below.)</p> <p>We will review "closed TV" facilities from the projections, and "TV_rmvd_eqpt" from the projected inventory. (Any 2003/2004 closed or removed facilities/equipment would remain in the 2002 inventory.)</p>
	I am drafting the 2004 SO2 Milestone source changes reports and have included some notes for ERG: [email contains table.]	N	ERG will make include this information as a SO2 flag and note in the NM spreadsheet.
Heather Lancour, NM Env. Dept, via email 10/20/05	I apologize. I am unable to provide the emissions, stack parameters, and SCCs for all equipment added in 2003 and 2004. I can only generate complete NEI submittals from our data management system; I can't perform specialized queries...If you would like a complete 2003 NEI submittal, I can provide it to you in XML. The 2004 data is not yet complete. I hope to have the 2004 complete by mid-December.	N	ERG will not add the new 2003/2004 point source emissions.

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Tom Bachman, ND Dept. of Health, via email 9/29/05 (attachment), teleconference 10/6/05	<p>I have reviewed the 2018 emissions projections for North Dakota and my preliminary comments are contained in the attachment 2018 EI Comments3.doc. Two other attachments are included which are referenced in the comments. We will continue to review the inventory and provide corrections we believe are appropriate. If you have any questions, please contact me.</p> <p>Point Sources: The point source estimates look reasonable except as noted below. The following sources should be deleted since they are no longer operating or now have insignificant emissions:  Heating Plant - Fargo  Amerada Hess: Dolphin Unit  Amerada Hess: Antelope #1 and Plant No. 2  Bear Paw Energy Inc.: PLAZA  Royal Oak Enterprises, Inc.</p>	N	ERG will remove the sources no longer operating from the 2018 projections.
	Several new sources have been permitted – see attached file with data for the sources.	N	ERG will add these post-2002 sources to the 2018 projections.
	3. The Lignite Gas Plant and Grasslands Plant are now injecting all of their acid gas into deep wells. SO <sub>2</sub> and other emissions from the tail gas incinerator at these facilities should be zero in 2018.	N	ERG will set these SO <sub>2</sub> emissions to 0 for 2018.
	<p>Area Sources:</p> <p>1. The area source emissions estimates do not look reasonable. North Dakota is predicted to only slightly gain population (1- 2%) between now and 2018 (see attached document titled “North Dakota Population Projection”). We believe area source emissions will not significantly increase overall and there will be a decrease in the rural areas. The growth factors for many source classifications appear to be much too high based on this low population increase. We ask that you consider these population projections when developing the final area source emissions estimates.</p>	N	ERG is not using local population projections due to currently limitations of EGAS. However, ERG is investigating the area source emission impacts due to population growth, as these are not expected to be significant.
	2. In reviewing the area source inventory, several counties had emissions estimated for SCC 2102002000, industrial boilers burning bituminous/subbituminous coal. This source category produced approximately 100,000 tons of SO <sub>2</sub> plus other pollutants. This is clearly in error. Any industrial boiler with significant emissions (i.e. > 100 tpy) that is burning <u>any type of fossil fuel</u> is included in the point source inventory already. We believe this source category should be deleted. If it was included in the 2002 baseline, it should also be deleted from that inventory also. (In teleconference, Tom said that ND does not burn any bit/sub-bit coal, so the commercial category (SCC 2103002000) should be removed, also. Tom will provide county-level emissions for SCC 2199003000 (area/stationary/all boiler types, lignite).	Y	ERG will remove the SCCs as requested, and add SCC emissions as to be provided by ND.
	3. We believe the PM <sub>10</sub> emissions estimate is also inaccurate. North Dakota has a population similar to South Dakota, similar agriculture and other PM <sub>10</sub> sources. Yet, South Dakota is projected to have 120,000 tpy less PM <sub>10</sub> emissions from area sources. We believe the PM <sub>10</sub> emissions estimate from area sources should be reevaluated.	N	ERG investigated this and found that the ND ratio of lbs PM <sub>10</sub> /acre harvested ~12.8, which the SD ratio is ~11.0. There is no basis to change this

Commenter	Comment	Affects 2002?	Response
			estimate at this time.
	Since there is a tremendous amount of data, we will continue to review the estimates and provided corrections we believe are appropriate.	N	No response.
Tom Bachman, ND Dept. of Health, via email 10/11/05 (attachment)	Attached is a spreadsheet with our area source emissions estimate for industrial, commercial and institutional boilers that burn coal (any type). I suggest SCCs 2102002000 and 210300200 be zeroed out and our estimates for SCC 2199003000 added. In developing our inventory I noticed that Billings (38007) and Slope (38087) counties were not included in the original inventory (probably too small to include). I have added them to our inventory.	Y	ERG will make the requested changes to the 2002 and 2018 EIs.
	One significant SO2 source which I am not sure has been included in the area source inventory is the oil and gas production facilities (flaring and lease use). Based on a table passed out by Pat Cummins at the recent WESTAR meeting titled "2002 WRAP Area Sources Emissions Inventory (Revised) (Includes Oil and Gas)" and the inventory we just reviewed, the oil and gas production facilities (wells) appear to be missing. We estimate that these facilities produced 4600 tons of SO2 in calendar year 2002. Do you have any information on how that source category is handled? If you have any questions, please contact me.	Y	ENVIRON has resolved this issue directly with Mr. Bachman; no change in emissions has been made.
Jeff Stocum OR DEQ, via email 9/28 and 9/29/05	The Oregon Area source 2002 and 2018 inventories look good. All the coordination with Regi Oommen paid off. Thanks for the opportunity to check this over.	N	No response.
	While answering a coworker's inquiry, I just ran across one SCC that shouldn't be included in the 2002 or the 2018 Oregon area source EI: 24-20-020-055 Coin-Op Perc Drycleaners. There are none of these in Oregon and the VOC estimates from them should be removed. Thanks again.	Y	ERG will remove this SCC.
Mark Fisher, OR DEQ, via email 9/30/05	I looked over the point source inventory and noticed a few anomalies, but I did not have time to review it in detail. Just a few things I noticed were that the following sources have shutdown and should not be included in the 2018 projections: Ellingson Lumber shut down in 1997 Glenbrook Nickel is shut down Crown Pacific in Prineville shut down in 2004 Ochoco Lumber in Prineville shut down in 2004 Willamette Industries in Bend shut down in 2002 International Paper in Reedsport shut down Dee Forest Products in Hood River shut down in 1997	Y	This comment is superseded by comment made on 10/14/05.
	As mentioned in the meeting last week, it looks like there may be some double counting of facilities/emission units, but we would need more time to review the data to recommend any changes.	N	No response.

Commenter	Comment	Affects 2002?	Response
<p>Mark Fisher, OR DEQ, via email 10/14/05</p>	<p>I am sorry that I could not get back to you by the 7th and I would not be commenting at this late date if there were only minor problems with the emissions inventory for Oregon. However, upon further review, we have found that there are several problems that could have a significant impact on the 2002 baseline inventory. As I mentioned before, it appears that the inventory includes several sources that shut down prior to 2002. In addition, the inventory includes minor sources that we thought were not included in our 2002 NEI submittal. And, finally, we think the inventory may include multiple entries for some of the sources.</p> <p>We did a spot check to see if some of the sources that we know have shut down are included in the 2002 NEI and confirmed that they are not. This led us to wonder how they got included in the WRAP inventory. Did you use the 2002 NEI? If so, is it possible that data from previous years could have been included in the extract? Or, maybe the data is carried forward somehow?</p> <p>One thing I noticed is that there is incomplete data for some sources (e.g., the SIC and NAICS are missing). These appear to be either minor sources or sources that shut down prior to 2002. We don't think these were included in our 2002 NEI submittal, so we are not sure why these are in the inventory.</p> <p>A few specific examples:  Blue Mountain Asphalt is not included in our 2002 NEI, but it is included in the WRAP inventory. This is a minor source. Note that this is one of the sources missing SIC, NAICS, and other data.  Ellingson Lumber is included in the WRAP inventory, but not in the 2002 NEI. This source shut down prior to 2002. This is true for several other sources.  There are two sets of emissions data for Seaswirl. The SCCs are slightly different, but we have confirmed that the emissions represent two separate years or they are double entries. This may be an error on our part if we entered the data twice for 2002 using separate SCC. However, if the data represents multiple years, then confining the inventory to the 2002 NEI will eliminate the duplication.</p>	<p>Y</p>	<p>ERG contacted OR DEQ, and it was agreed to remove all 1996 and 1999 records.</p>

Commenter	Comment	Affects 2002?	Response
	I also checked the Microsoft Access database that is provided on the WRAP website and it doesn't seem to match the one that can be downloaded from the NEI website. We are not sure if the problems are with the NEI, our submittal, or the extraction process, so any feedback would be helpful.	N	Based on our understanding of the WRAP EDMS for the version 1.0 inventory, these data should be the same as are contained in your 2002 NEI. It is possible that your EDMS download query did not capture all of your sources, or that a different version (0.9, 1.1, etc.) than 1.0. Try the download again for version 1.0, and compare that to your NEI submittal.
Mark Fisher, OR DEQ, via email 11/8/05	Add Coyote Springs (CTG-2) to the 2018 projections. We missed this one. It came on line after 2002.	N	ERG added this EGU.
Jason Knapp, SD DE&NR, via email 9/28/05	Could you tell me what data you used to determine the harvested acreage, for the following eight major crops (corn, sorghum, barley, oats, wheat, rice, upland cotton, and soybeans) as well as the emission factors used to determine the 2018 projections for tilling of crops. (via telephone, requested an additional week to provide comments.)	N	ERG provided background on the ag tilling growth factor (USDA crop projections). No other comments have been received.
Jim Schubach, UT DEQ, via email 9/30/05	In general UDAQ has found the Draft 2018 Inventory to be an adequate reflection of the condition of point and area sources in Utah. It is the position of UDAQ that the 2018 projection can be improved in the following ways: 1. The determination of retirement and replacements, for point sources, would be a more accurate reflection of the permitting situation in Utah if control factors for replacement units were based on BACT control efficiencies rather than NSPS or BART.	N	ERG is changing new source rates to BACT levels.
	2. ERG has requested clarification, concerning voluntary emission reductions under taken since the 2002 inventory, on a the following sources: Intermountain Power Unit 1 & 2 (EGU 1222) and PacifiCorp Huntington Power Plant 2 (EGU 1221): a. A review of Intermountain Power permits since 2002 indicates that projects undertaken within that time frame would not be considered voluntary reductions. b. PacifiCorp has undertaken an emissions control retrofit project at the Huntington 2 site. PacifiCorp was granted a preconstruction permit (Approval Order) from UDAQ on April 6, 2005 and it is our understanding that the project is currently under construction. UDAQ has estimated the control efficiencies at the plant as follows: i. PM 10: 0.80 reduction ii. SO2: 0.70 reduction iii. NOx: 0.30 reduction	N	ERG is providing this information to the WRAP/SSJF for use in control strategy development.
	3. UDAQ requests ERG to review the emission projections associated with the Future Coal Power		ERG will investigate this issue

Commenter	Comment	Affects 2002?	Response
	Plants 1-6. The 2018 projection worksheet is showing zero emissions for these future plants. A review of the Arizona spread sheet for future coal plants indicates that 2018 projects were undertaken and that the values in the sheet have been inputted and not calculated from elements of the 2018 spreadsheet. The Future Coal Plant values in the Utah spreadsheet have been calculated in the spreadsheet and some cell references seem inappropriate for the calculation.		and make corrections as necessary.
	4. UDAQ requests an extension of the review period for area source review and permit review for point sources. While we have been able to review the BART eligible sources and a cross-section of other major sources for conflicts between the 2018 projections and existing permit limits there are a number of point sources that we have not been able to review. We also need additional time to complete our review of the area source projections.	N	See response below.
	5. In the BART Flag column (O) a number of sources have been flagged as either "potential" or "not known". At this time UDAQ has identified only four BART eligible sources: the two Hunter units 1 & 2 and Huntington 1 & 2.	TBD	Lee Alter to respond.
Carol Nielsen, UT DEQ, via email 10/5/05	Sent spreadsheet with area source SCCs that are duplicated, or whose emissions are reported under other SCCs. Requests that these duplicates be removed from the 2002 and 2018 area source inventory.	Y	ERG will remove these SCCs from the 2002 and 2018 projections spreadsheet for Utah.
Sally Otterson, WA Ecology, via email 9/30/05 (attachment)	Please find changes to the WRAP draft 2018 inventory attached. Only the "WA Point" worksheet in the spreadsheet "WA_projections" was reviewed. A detailed review could not be completed. Updates are provided for items known to be of major significance, but there may be others that simply could not be identified in the time allowed. Also, no records from the Puget Sound Clean Air Agency's sources were reviewed (most sources in counties 033, 035, 053 and 061), since our records did not allow for easy comparison. A few notes on the attached file: C The first worksheet "WA Point" was copied from the review worksheet of the same name. C Records highlighted in pink should be deleted from the database. In most cases, these sources are no longer in operation (and not expected to resume). A few are emitting at very low levels, much lower than listed in the draft, and no longer need to be tracked as individual sources. C Records highlighted in green should be replaced with the information in the worksheet "Aluminum_smelter_updates." C Records highlighted in yellow should be replaced with the information in the worksheet "Other_updates."	Y	ERG will make the changes as requested by the agency.
	Two notable items were: 1. Some sources had PM or PM10 emissions but not the complete set of PM, PM10, PM2.5	N	ERG did not augment missing PM species.
	2. It is very possible that sources not identified in our review may have had significant changes between 2002 and the present. I know this is a challenge inherent in this project. Please let me know if you have any questions on our recommended changes. Thank you for all your work.	N	No response.
Sally Otterson, WA Ecology, via email 10/11/05	[Clarified that Ecology has jurisdiction over aluminum and pulp mills. Changes from Spokane County (Studer) have priority of any suggested, or not suggested by Ecology.]	N	No response.

Commenter	Comment	Affects 2002?	Response
Sally Otterson, WA Ecology, via email 11/9/05	Add new EGUs that came on-line in 2004: Goldendale (CT-1) 256 MW, and Encogen (CT1, 2, 3) at 56 MW each.	N	ERG will add these post-2002 EGUs to the 2018 base case.
Alan Newman, WA Ecology, via email 10/7/05.	<p>Hopefully these additional comments are useful though probably late. Since the message from Sally Otterson last week, there have been additional concerns surface about the inventory projections related to the retirement projections for oil refinery and other industrial source equipment.</p> <p>Washington's experience is that the oil refinery equipment is not retired after 30 years or so, but continue in operation for 40 or more years. We still have operating process heaters and refining equipment originally constructed in the 1950s that is in operation as the primary heater/process unit. At 3 of our refineries the newest process equipment installed dates from the early or late 1970s (except for equipment that has been added to the plant to meet recently mandated motor fuel sulfur content requirements). Thus for Washington, the projection that oil refinery equipment will be retired/replaced on a 30 year cycle is not realistic.</p>	N	ERG consulted with the Work Group on this comment. It was decided that the retirement rates for all non-coal EGUs will not be changed for the first version of the 2018 base case projections. This is an area that will likely be examined more closely by the WRAP in the future in the form of a sensitivity analysis to determine the impacts on emissions from retirement/replacement versus non retirement/replacement of these equipment.
	I couldn't decipher the retirement rate projection for aluminum and chemical pulp mill equipment, but again our experience is that once the equipment is installed, it is in place forever before the plant's owner considers performing significant maintenance projects (not equipment or whole unit replacement). The aluminum smelter and secondary aluminum plant equipment is installed once and essentially never replaced. Instead, capacity is added or plants close. Chemical pulp mill process units are replaced only when the unit becomes uneconomical to operate, not when it "wears out".	N	These particular equipment are not being retired, although growth is applied. No adjustment is necessary based on this comment.
	Experience indicates that unit lifetimes of 50+ years for an industrial oil or natural gas fired boiler is not unrealistic in Washington. We also have a number of natural gas/oil fired simple cycle combustion turbines used to provide peaking electricity that are still in operation 30+ years from initial installation.	N	Pursuant to the Work Group decision, these lifetimes will remain in the projection calculation for purposes of the first 2018 base case calculation. The impact of retirement vs. no retirement may be examined in the future.
	As Sally Otterson noted in her message from last week, the inventories for the Puget Sound Clean Air Agency counties are hard to compare, but, as I scanned the Washington point source inventory, I noted that the following facilities are noted in the company name as "out of business", or "closed": NORTHWEST MANUFACTURING INC (OUT OF BUSINESS) #5303315138 MERIDIAN AUTOMOTIVE SYSTEMS INC (OUT OF BUSINESS) #5303317625	N	ERG will remove these from the 2018 projections.

Commenter	Comment	Affects 2002?	Response
	DERBY CYCLE CORP (CLOSED) #5303328611		
Sally Otterson, WA Ecology, via email 10/10/05	<p>I did a very broad review of the "WA Area" worksheet in the spreadsheet "WA_projections." I compared our 2002 EI with the "WA Area" worksheet baseline planning inventory values. First, I removed counties 53033, 53035, 53053 and 53061 since the NEI values for these counties are under the jurisdiction of the Puget Sound Clean Air Agency. I summed the remaining counties and compared them by SCC code to the 2002 inventory that WA completed for the NEI. We relied on EPA's inventory for many of the SCCs - so we have no values to compare for those. The comparison showed some that matched, and some potential double-counting issues. Those we did inventory and the result of the comparison are:</p> <p>Exact match (or nearly so)</p> <ul style="list-style-type: none"> <li>2104008000 (residential wood combustion)</li> <li>2401002000 (architectural surface coating - solvent based)</li> <li>2401003000 (architectural surface coating - water based)</li> <li>2460100000 (consumer/commercial solvents - personal care products)</li> <li>2460200000 (consumer/commercial solvents - household products )</li> <li>2460400000 (consumer/commercial solvents - automotive products)</li> <li>2460500000 (consumer/commercial solvents - coatings)</li> <li>2460600000 (consumer/commercial solvents - adhesives/sealants)</li> <li>2460800000 (consumer/commercial solvents - FIFRA)</li> <li>2460900000 (consumer/commercial solvents - miscellaneous)</li> <li>2610000400 (residential yard waste burning)</li> <li>2461003000 (residential trash burning)</li> <li>2801000003 (agricultural tilling)</li> </ul>	N	No change is necessary.
	<p>Potential Double-Counting (NEI records from EPA potentially double-counting state-submitted data under other SCCs)</p> <ul style="list-style-type: none"> <li>2461* (commercial solvents) - potential double count with SCC 2460*</li> <li>2465* (consumer solvents) - potential double count with SCC 2460*</li> <li>2610000100 (open burning of leaves) - likely double count with 2610000400, since all residential yard waste was included in 2610000400 in WA's 2002 EI.</li> </ul> <p>(After taking a closer look at the individual SCCs, I would recommend removing the following as having a high probability of being double-counted: 2465*, 2610000100 The other codes that I thought may be double counted, were not. They should be retained in the WRAP EI: 2461*)</p>	Y	ERG will remove the SCCs as indicated in the parenthetical comment from both the 2002 and 2018 inventories.
	We inventoried other categories that were not in the "WA Area" worksheet, but I believe they are all (?) being taken care of elsewhere in the WRAP effort (road dust, prescribed burning, agricultural burning, onroad, nonroad, fertilizer, livestock). Please let me know if you need further information.	N	Yes, these other categories are being handled elsewhere in the WRAP effort. No change is needed here.
Gail King,	Line # 2617 - 2620 Source, PSE South Whidbey Generating Station was dismantled in 1999.	Y	ERG will make the changes as

Commenter	Comment	Affects 2002?	Response
NWCAA (WA state), via email 10/3/05	Line # 6032 - 6061 Source Tecnal removed equipment that put them into the T5 program. 2003 Line # 6062 - 6070 CRS #5: Name change to Rinker Materials #5 Line #6253 - 6263 Lignotech went out of business - no one will take their place Line # 7799 – 7836 Georgia Pacific West. They are no longer a Title V source they shut down the pulp and paper mill they are currently operating a tissue plant with a total of 30 tons of criteria pollutant / yr. Line 8580 PRAXAIR INC. in Ferndale. Never heard of this source.		requested.
Lynn Billington, NWCAA (WA State), via email 10/6/05 (spreadsheet attached); follow-up call 10/11/05	Table 1 provides lifetime and annual retirement rates. This table delineates industrial boilers fired on oil as having a 45 year expected lifetime, industrial boilers fired on natural (gas) having a 30 year expected lifetime and petroleum refineries having a 30 year expected lifetime. In our jurisdiction these retirement rates are not accurate. NWCAA has refineries with large boilers and heaters well over the 30 year expected lifetime continuing to operate. Three of the refineries in our region, were built in the 1950's and continue to use some of their original equipment (i.e. heater, boilers, cat cracking unit, reformers, etc.).	N	Pursuant to the Work Group decision, these lifetimes will remain in the projection calculation for purposes of the first 2018 base case calculation. The impact of retirement vs. no retirement may be examined in the future.
	In addition, we reviewed the facilities that were in the emission inventory baseline in 2002. I wasn't sure of your criteria for including facilities but believe some sources should probably be added and other left out due emission levels. I have attached brief emission summaries. There are a few sources that are over 50 tons that should probably in the WRAP inventory and are not currently listed. Also, some of the smaller sources should probably be left out. In addition, we are in the process of permitting a new Sawmill and Cogen that will be a Title V source (Sierra-Pacific) with a combined emission of about 200 tons of NO <sub>x</sub> , SO <sub>x</sub> , and PM. I would expect it to be up and running in 2006. How can we get this source be included in the WRAP EI? If you need more information on these sources please Gail or me a call.  Follow-up call decisions: C 2002: Remove sources on spreadsheet shown to emit <25 tpy; 2002: Remove PSE So. Whitbey (closed 1999); change name of CRS#5 to Rinker Materials #5; removed PRAXAIR (never heard of them). C 2018: Remove Tecnal (reduced ops in 2003, no longer TV source); remove Lignotec (OOB 6/03); remove Georgia Pacific West (reduced ops in 2003; no longer TV source); add note that Sierra-Pacific sawmill will install cogen by 2006	Y	ERG will make all the changes requested by the agency.
Chuck Studer, SCAPCA (WA state), via email 10/10/05 (spreadsheet attached); 10/13/05 sent revised	There are some errors in Spokane County's point source facilities (53063). See attached spreadsheet. [These include instructions to remove/change names on some records, add new facilities although emission are not provided, and information on sources that will become minor emitters in the future.]  10/13/05: Revised spreadsheet indicates dates of name changes and closures.		ERG will make changes to renamed/closed facilities.  ERG will not address new/missing facilities as not emissions were provided, and are expected to be insignificant for visibility analyses (mainly

Commenter	Comment	Affects 2002?	Response
spreadsheet			HAPs).
Sunil Varma, Salt River Project, via email 9/29/05	1. In AZ_projections.xls, there is duplication of emission units. For example, CO, SO2, and VOC emissions from SRP's Coronado Generating Station are represented twice. The CO emissions value in Row 16 is the sum of the values in Rows 4 and 5. The SO2 values in Rows 6 and 7 are the same as those in Rows 24 and 25. The units at Coronado are CAMD EGUs. They are correctly identified as such in Rows 16-26 by setting the CAMD EGU flag = Y. However, the same facility in Rows 4 through 9 is not recognized as containing CAMD EGUs. Therefore, the same units are duplicated and not treated in the same fashion. Rows 4 through 9 should be deleted.	Y	ERG will remove the duplicate records.
	2. Similarly, there is repetition for Desert Basin Generating Station (Desert Basin rows with Emission Unit ID = 1 are redundant). There is repetition for Kyrene Generating Station and SRP Agua Fria Generating Station, but the values are so low, that there will likely not be a major impact.	Y	ERG will remove the duplicate SO <sub>2</sub> and NO <sub>x</sub> Desert Basin records (lines 9476+9495, AZ projections spreadsheet). For Kyrene and Agua Fria, pollutants are not duplicated.
	3. In Rows 16, 22, 23, and 26, the CAMD EGU flag is left blank. The flag should be set to Y. The spreadsheet logic should be examined to make sure that if a unit is a CAMD EGU, the flag should be set to Y for all pollutants emitted from the unit. This is important because if the CAMD EGU is not set to Y, a retirement rate is calculated for the pollutant.	N	ERG is investigating this comment, and will make changes as necessary.
	4. The emission rate from new EGUs should be calculated using BACT rates, rather than BART or NSPS values. BACT rates are available from EPA's RACT/BACT/LAER Clearinghouse.	N	ERG will use BACT.
	5. There is a conversion error in the worksheet titled "Future EGU Emission Rates" in AZ_projections.xls. The lb/MMBTU rate is converted to lb/MWhr using a conversion ratio of 3410 BTU/KWh (Row 28). For coal EGUs, a heat rate of approximately 10,000 BTU/kWhrs is more appropriate,	N	ERG will change the heat rate for coal to 10,000 BTU/KWhr.
	6. In the worksheet titled "Agency Identified EGUs" in the spreadsheet EGU-projections.xls, some of SRP's post-2002 units are missing. They are – Unit K7 at Kyrene Generating Station; Units S-5A, S-5B, (operational) and S-6 (planned 2006 operation) at the Santan Generating Station.	N	ERG will make these updates as appropriate. Note: K-7 is in projections (CAMD); S-5A, S-5B (Santan) are non-CAMD EGUs (not on "Agency Identified EGUs list"; and S-6 is a "future" EGU that can be accounted for in the future EGU allocation method, however, Santan is a non-CAMD facility.
	7. General comment – as stated in the material, projections were based on data gathered from EIAs Annual Energy Outlook 2005. It would be useful to confirm that this document takes emerging renewable portfolio standards into consideration. If the document does not do so, it might be advisable to give some consideration to the possible impact of increased renewables in the West on the projection scenario.	N	The EIA projections take into account the amount of generation expected in the future from all fuels/technologies, including

Commenter	Comment	Affects 2002?	Response
Sunil Varma, SRP, via email to Dennis Schwehr 10/26/95	From what I have seen heat rates are in the range of- Coal : 9500 - 10,500 BTU/kWhr. So 10,000 BTU/kWhr is not a bad average. > Combined Cycle Gas : 7000 - 7500 BTU/kWhr	N	renewable, hydro, nuclear, etc. ERG will change the heat rates as suggested.
Nancy Norem, PNM, via email 11/22/05	Noticed that the SO2 numbers for San Juan Generating Station in 2018 base case seemed low. The lb/MMBtu SO2 numbers in the spreadsheet ranged from 0.11 lb/MMBtu to 0.15 lb/MMBtu. As you know, SJGS is under a consent decree to lower both SO2 and NOx emissions. There are several new SO2 emission limits are a result of the consent decree – a 90% annual removal and a 0.25 lb/MMBtu averaged over 7 days. The most stringent of these emission limits is the annual 90% limit. Based on the number in our recent permit application, the SO2 lb/MMBtu emission limit (annual basis) would be 0.195 lb/MMBtu for each of the SJGS units – not sure where the 0.11 to 0.15 numbers came from...the lb/MMBtu numbers in the spreadsheet are not too different from what we hope to achieve.	N	SO2 emission rate was changed to 0.195 lb/MMBtu.
Gary Magno, XCEL Energy, via email 9/29/05	<p>As a follow-up to our conference call last Friday, attached is a file containing my comments on the Colorado spreadsheet and assumptions associated with the 2018 emission projections for the Public Service Company of Colorado facilities. I primarily looked at the coal-fired boilers and did not review specific information regarding some of the other sources such as natural gas compressor station engine emissions. If you have any questions regarding my comments, please let me know.</p> <p>Plant Retirements: The general assumption that coal units under 100 MW will retire in 45 years and units over 100 MW will retire in 60 years is not valid for Public Service Company of Colorado (PSCo) sources. According to our Energy Markets group there are no planned retirements in the PSCo system before 2018. The Colorado Projections Spreadsheet assumes that Cameo 2, Arapahoe 3 and 4, and Cherokee 1 will be retired by 2018. This is not a valid assumption.</p>	N	Based on current assumptions, there are ~10 coal EGUs projected to retire by 2018; however, based on this and other comments (and Pat's revised 2018 EGU projections method), ERG will change the method per Cummins and will not retire any coal-fired EGUs.
	Also, there seems to be some problem with the spreadsheet in that if these units were to in fact retire, future emissions should be less and emissions remain unchanged from the 2002 baseline and are only adjusted for growth, not adjusted for replacement by new sources.	Y	ERG is investigating this question and will make changes as appropriate (i.e., which might effect other sources, not just EGUs).
	<u>Future Emission Rate Assumptions:</u> This issue was discussed on the call but I would agree that any future emission rates for units replacing retired units or just new units in general should be based on BACT, not NSPS or presumptive BART levels. The EPA BACT, RACT, LAER clearing house is the best source for this emission rate information.	N	ERG will use BACT.
	<u>BART Flag:</u> I'm not actually sure of the purpose of this flag but there are PSCo units that have the BART flag and are not BART eligible. These units include Cherokee Units 1, 2, and 3. Only Cherokee 4 is actually BART eligible. Also, Pawnee Unit 1 is shown with a BART flag. The question of whether Pawnee is or is not BART eligible is still being discussed with the Colorado Air	N	Lee Alter to respond.

Commenter	Comment	Affects 2002?	Response
	Pollution Control Division. For the purposes of this projection spreadsheet, Pawnee should be indicated as potentially BART eligible.		
	<u>Agreements/Enforcements:</u> The SO <sub>2</sub> control assumptions used for Arapahoe 3 and Cherokee 2 of 37.5% control from baseline is not correct. An overall reduction from 2002 baseline emissions of 20% is more accurate based on actual experience meeting the SO <sub>2</sub> tonnage cap for all the Denver Metropolitan Area emission units covered by this agreement.	N	The Denver agreement estimates reductions of 20-50%; ERG assumed a midpoint (37.5%). ERG has asked CDPHE to confirm that they agree with a change to 20% for these two units.  10/26 telephone call from Roy Doyle: CDPHE agrees with a change to 20% SO <sub>2</sub> control on these EGUs.
	<u>Future Permit Limits:</u> The SO <sub>2</sub> and NO <sub>x</sub> projections for Comanche Units 1 and 2 are above permit limits. Permit limit for Unit 1 is 3093 tons/yr NO <sub>x</sub> and 1856 tons/yr SO <sub>2</sub> . For Unit 2 the NO <sub>x</sub> projection is below the permit limit of 3050 tons/yr but the SO <sub>2</sub> projection is above the limit of 1830 tons/yr. It should be noted, however, that the actual permit limits for these two units are combined annual limits and not individual stack limits. For the purposes of these projections, however, the limits noted above are appropriate for modeling and planning purposes.	N	The NO <sub>x</sub> and SO <sub>2</sub> emissions have been changed according to the permit limits.
	<u>Ammonia Emissions From Coal and Gas Combustion:</u> I see the spread estimates ammonia emissions from coal and gas fired boilers. To my knowledge AP-42 does not contain any emission factors for ammonia from sources like this. The source of that emission factor and validity is in question.	N	ERG used estimates from the 2002 NEI. Per EPA documentation on development of EGU emissions for the NEI ( <a href="http://www.epa.gov/ttn/chief/net/2002inventory.html#point">http://www.epa.gov/ttn/chief/net/2002inventory.html#point</a> ): NH <sub>3</sub> emissions were estimated from “EIA data and new default emission factors”.
Angelique Leudeker, ITEP, via email and teleconference 10/7/05	For some tribes, the facility names are not right...duplicates...I highlighted errors. Also, there is one facility (South Pavilion Compressor Station ) on the Arapahoe Tribe of the Wind River Reservation that we do not have in our database.	Y	ERG will make corrections to 2002 and 2018 records having erroneous facility names.  The So. Pavilion Compressor Station is new, but emissions have not been provided. No other action will be taken.
Tom Rice, Ute Mountain Tribe of Ute Mountain	New sources on line after 2002 include “1 compressor station and approximately 12+ wells.”	N	These were added to “note” of the tribal spreadsheet, although emissions were not provided.

Commenter	Comment	Affects 2002?	Response
Ute Reservation, via email 9/7/05			
Pat Cummins, WRAP, via email 10/7/05	Attached for your review and comment is a corrected 2018 projection of SO2 and NOx emissions from existing coal-fired EGUs in the Western power grid (contiguous WRAP region minus the Dakotas). When finalized, this projection will replace the 2018 base case projection for these units previously released by ERG. Please review the attached memo and spreadsheet and let me know if you have any questions or comments. It would be most helpful to receive your comments by Thursday, October 20.	N	ERG will replace the draft EGU projections with Cummins' corrected version for the applicable coal-fired EGUs.
Lee Alter, WRAP, via e-mail 9/28/05	Below are my comments on the 2018 projections in general, followed by some EGU comments. As I told Paula after the call, I thought the call went very well and I'm impressed with the effort you have put into this. The way Excel works, it's too hard / time consuming to make sense of the formulas as they appear in the cell contents bar, but the spreadsheets appear to do what they have to do methodology-wise, and they are well organized and transparent (which is important), and the memos were very handy.	N	No response.
	<u>1. Emissions Summary.</u> As Paula, Tom, and I have discussed, it would be helpful to have a summary table(s) of the preliminary 2002 and 2018 inventories for major source categories for SO2, NOx, and PM10.	N	ERG will prepare this after addressing comments on the draft 2018 EI.
	<u>2. Sample Sources/Calculations.</u> It would be helpful if the memo / draft report contained two examples of how a "source" was projected to 2018. The example would show the numerical result of applying each factor in sequence -- growth, retirement, control, etc. A flow chart may help too.	N	ERG will provide these details in the draft and final reports.
	<u>3. Subsequent Revisions.</u> We are only providing folks two weeks to review this large and very important data set. To the extent a reasonably accurate preliminary regional inventory is needed soon to produce some preliminary 2018 visibility projections on time, I think that's fine because we have no modeling results at all and really need some. However, I'd like to think that we'd have the resources and/or process to accept any changes to the 2018 base case from the states and tribes up to some date after Sept 30. Say, Nov 15??? Is something like that part of the plan???	N	ERG's schedule is to finalize the projections for purposes of developing summaries for review by 11/4. Comments from WRAP are due on 11/15. Final summaries will be generated by 11/18. Changes could be received as part of the comments on 11/15.
	<u>4. Emissions From New Sources.</u> I agree with one of the concerns raised on the call. Aren't BART and (to some extent) NSPS under representative of actual controls achieved on new sources? BACT would seem more appropriate, but I don't know the issues involved in using the BACT Clearinghouse or similar resources.	N	ERG will use BACT rates for new sources.
	Also, I'm not sure how you calculate emissions for non-EGUs that have either been fully retired and replaced or partially retired/replaced (per the annual percentage method). The "retirement and reductions" worksheet shows substantial reduction percentages for several (but not nearly all) SCCs.	N	For non-EGUs, annual % method of retirement was used. % not retired maintains existing emissions rates; % retired/replaced and new growth uses new emission rates.

Commenter	Comment	Affects 2002?	Response
	The memo says these are the control efficiencies relative to existing sources? Really? They seem relative to uncontrolled sources, not necessarily existing sources, which may have been originally built with some controls, or retrofitted for a variety of purposes. I hope you can provide at least a short description/reference on that point.	N	ERG will change wording to say “relative to uncontrolled sources” as appropriate. (Note, there is not a feasible way to determine if existing sources are already controlled.)
	And for those SCCs for which no new control efficiencies are provided, I assume you assume existing emission rates. I thought I read or heard that somewhere, but can't find it now.	N	Correct, these are not being retired since new source emission rates are not readily available.
	<u>5. NEI vs CAMD Data.</u> I thought the states preferred the NEI over the CAMD data, but the memo says CAMD data were used as the basis for projections.	N	Some states (e.g., CA) do not prefer CAMD data; however, for this project the CAMD data were selected for consistency in reporting. Also, in recent years, as compared to the past, CAMD data are greatly improved in quality and coverage.  (Note that WY and AZ [few sources] also preferred their own data over CAMD; these emissions are reflected in their corrections submitted by ERG on 10/24/05 to the modelers. The differences between the state emissions and CAMD for these sources is 5% or less.)
	<u>6. Placement of New EGUs.</u> Your memo shows 27 new coal-fired EGUs will be required, and only 7 specific locations have been identified by the states. The other 20 are distributed across states with existing coal-fired plants. How did you decide on the number per states? Also, these would be put at existing plants, but the spreadsheet doesn't show which plants. The locations are unspecified. Are we expecting the states to specify? If they don't, what do we do?	N	ERG modified the siting procedure based on input from the WRAP SSJF/Projections work group (10/4/05). This is based on (in this order): (1) power plant announcements and (2) locations of existing coal EGUs and infrastructure.
	7. Are all the new gas fired units combined cycle?	Y	No. Both simple cycle and combined cycle natural gas EGUs are currently under

Commenter	Comment	Affects 2002?	Response
			construction or being permitted. No new future natural gas-fired EGUs were allocated in the future.
	8. There are no CTs provided for gas-fired boilers. As I said in an earlier email, there are several such boilers in the WRAP region, some of which are BART-eligible.	N	ERG did not apply CTs for gas-fired boilers. However, we will assume a 0.5 CT and make this correction.
	9. Table 1 identifies post 2002 voluntary reductions at Coronado and Navajo, but I don't recall hearing about these, nor do I seem them in Table F that Paula has been maintaining. On the other hand, I have heard about negotiations for Cholla.	N	This information was provided by Steve Frey, EPA Region 9.
	10. Arapahoe and Cherokee show some units with a retired flag of "Y", but they have 2018 emissions anyway. Was that flag over ridden and how? I can't really tell by a cursory look at the spreadsheet.	N	Based on discussions with the Projections Work Group, no coal-fired EGUs are being retired.
	11. On page 2, I'm confused by the second paragraph ("Data for this calculation ..."). As noted above, you used CAMD data rather than NEI, in which case you would have the CF data. So why discuss matching of CAMD units to "WRAP units" for the purpose of obtaining CF data?	N	The NEI matching only pulled in emissions (CF was not known to be needed at that juncture). Another effort to compile CF data was necessary for the projections method.
	12. On page 2, second-to-last paragraph ... It says "The capacity threshold represents the theoretical level ...". I think you mean the typical or expected level. Theoretically, they could probably achieve >0.85 for coal-fired EGUs, as is sometimes the case in reality.	N	We will change the wording as suggested.
	13. On page 3, last paragraph, first sentence identifies number of new "plants." Should be "units." Same goes for the Facility Name in Column L of the point source tables.	N	ERG will make this change in the EGU discussion for the draft and final reports, as well as the spreadsheets.
	Finally, as a general matter, you might consider pointing out in future memos / reports the major sources of uncertainty, especially those likely to have the largest impact on results.	N	ERG will add this information to a revised memo, and draft and final reports.
Lee Alter, WRAP, via email 10/10/05	Note, for reasons stated in my email regarding a sample "pivot table deliverable", you may want to use multiple columns to provide text descriptions at multiple SCC levels.	N	ERG will include SCC descriptions to the SCC_L3 level as requested. This change will affect ALL states' spreadsheets.
Lee Alter, WRAP, via email 10/12/05	[Sent link to EPA announcement concerning Refinery Compliance Initiative, new consent decree with ExxonMobil; affects Billings, MT refinery.]... The sulfur dioxide emissions would end up in the few hundred tons range" (100-400 tpy) for the "next generation" catalyst additives and/or control equipment.	N	ERG will make a note in the MT spreadsheet that ExxonMobil is subject to CD reductions.

Commenter	Comment	Affects 2002?	Response
Lee Alter, WRAP, via email 10/25/05	Passed along information on new consent decree affecting ExxonMobil refinery in Great Falls, MT	N	ERG added a flag and note to the MT spreadsheet indicating reductions are expected, although currently not quantified.
Dennis Schwehr, WEST Assoc., via email 9/23/05	Quick comment...might be more later...retirement rates for EGUs, as shown on page 7, show a percentage retirement, equivalent to a percentage reduction in emissions, for each year of the expected life of the various types of units. Pechan did not do it this way if they knew the start date of the unit. I thought you were also going to apply that concept. In other words, a unit's emissions would continue to grow until it hit the capacity threshold or when the unit reached its life expectancy.	N	All of the CAMD EGUs (which were the EGUs with commencement dates) used lifetimes; other sources (including non-CAMD EGUs which did not have commencement dates) used the annual retirement rate approach. ERG will include such a clarification in a revised memo, and draft and final reports.
Dennis Schwehr, WEST Assoc., via email 9/29/05	Regarding capacity factors for EGUs, other than coal boilers, did you do any research on CFs for old gas/oil boilers, simple cycle gas turbines and gas combined cycle units? The CFs used in your assumptions for growth purposes were really off the top of my head and I expect some utilities would say they should be otherwise. But you may need to do a little research in the EIA or CAMD records to see what is realistic. Even though a few utility folks may think the coal unit CF should be higher than 85%, others are OK with it. Being that utilities OK'd the use of 85% in previous projections work, I am hesitant to see you change it...	N	ERG compiled CAMD EGU data and calculated CFs (1999-2000); documented in memo and spreadsheet 4/14/05. However, these data are not disaggregated by technology/fuel. We will do this and report the findings in attempt to justify or adjust the CFs for the non-coal EGUs.
	Public Service Colo (Xcel) is sending you some of their own comments. They take exception to the retirement of some of their coal units within the 60 year timeframe. I remember when that point was raised a few years ago, someone mentioned that even though a unit may be operated more than 60 years, it is expected that units would likely be retrofitted with new controls at some point, making it essentially a "new unit". The life expectancy assumption for coal boilers is probably better left as is, again, because changing it would create some controversy that may not be easily defensible.	N	Pursuant to Work Group decision, there will be no retirements of coal-fired EGUs.
Dennis Schwehr, WEST Assoc., via email 9/29/05 (Forward from Lyle Nelson, SCE)	If Mohave operates in the future we project up to 86% C.F. as was used in our application for our permit to construct the consent decree air pollution controls. 85% C.F. is probably close for planning purposes.	N	No response; see comment and response from Nevada Dept. of Environment regarding Mohave plant.
	No comment on the oil/diesel fired EGUs. The "Natural gas-fired turbines are probably 'Peaking	N	ERG is investigating the

Commenter	Comment	Affects 2002?	Response
	Units' which would most likely operated in the 25% annual C.F. range, or less. The natural gas-fired combined cycle units, however, would tend to operate closer to a baseload plant because of their extremely low heat rates. 60% annual C.F. may be too low. Granted they will operate at higher cost than base loaded coal plants (fuel cost differential), however, because of their ~ 7000 BTU/KWH heat rates should call them out on dispatch quite a bit... maybe closer to 70% annual C.F.		assumptions of CF for the NG turbines, using CAMD data (see response to Schwehr, above). We may make adjustments depending on findings.
	The NOx rate for coal seems ok, i.e., 90% reduction by SCR on a new coal plant should yield an uncontrolled NOx rate of $(0.11/.90 = 1.10 \text{ LB/MMBTU})$ . Mohave's NOx rate currently is 0.41 LB/MMBTU. The NOx rate seems good enough to me. The SO2 rate of 0.15 LB/MMBTU is achievable for Mohave at an 85% reduction. Assuming a BACT requirement of 95% scrubbing this would give some room for higher sulfur content in the coals in some cases in the west. Therefore, I would hate to see the limit tightened beyond 0.15 LB/MMBTU.	N	See comment and response from Nevada Dept. of Environment regarding Mohave plant.
	Only one correction needs to be added for Mohave in Table 1: In the 'Notes' column for Mohave, the note states that, 'Heat input limit (per NDEP) is 73,925,640 MBTU/YEAR.' This should be corrected to show as '... 73,925,640 MBTU/YEAR per unit.'	N	ERG will make this change.
Doug Latimer, via email 9/28/05	I have a few comments listed here. My comments are solely on the EGU portion of the analysis. The EGU component of the analysis is currently biased because new EGUs are assumed to emit at NSPS or presumptive BART levels. These are emission rates much higher than BACT as currently enforced in the West (and documented to some extent in EPA's BACT/RACT/LAER Clearinghouse). Also, BACT is constantly evolving (tightening) as technology improves. There are some who advocate IGCC and CFB, both technologies that can reduce emissions significantly (even CO2 in the case of IGCC). Increasingly, new technology will be substituted for old, possibly (hopefully) even in the 13-year timeframe out to 2018.	N	ERG will apply BACT levels to new sources based on this comment (and many others).
	The EGU analysis does not account for renewables (wind, primarily) offsetting some coal-fired generation or energy efficiency measures, which could change the rate of growth of electricity demand.	N	Similar comment as Sunil Varma (SRP). The EIA projections take into account the amount of generation expected in the future from all fuels/technologies, including renewable, hydro, nuclear, etc.
	Because of significantly escalating natural gas prices, I question the assumptions regarding new natural-gas-fired single- and combined-cycle gas turbines.		The EIA 2005 Outlook was published in February 2005, thus is includes the most up to date projections. We have not other basis for generation projections, so no change will be made.
	EGUs are assumed to have a 60-year life with an annual retirement rate factor of 1.67%. I realize these assumptions were used in the GCVTC and the IAS, but I question the validity of them. Is there any evidence that utilities will want to abandon EGUs after 60 years? There is abundant	N	Pursuant to Work Group decision, there will be no retirements of coal-fired

Commenter	Comment	Affects 2002?	Response
	evidence that they will want to renovate them over time. With NSR power plant enforcement uncertain at this time, it is unclear how that power plant upgrading will translate into emissions control. I would recommend against using the annual retirement factor. I would explore the sensitivity of the results (1) by assuming retirement at age 60 and never retiring, (2) with and (3) without BACT (enforcement level) controls.		EGUs. The sensitivity analysis may be done after this first version of the 2018 base case emissions are completed.
	Assumptions are made regarding the coal Btu content which are not valid for much of the West. Better, site-specific assumptions should be made .	N	This will be revised to 10,000 BTU/KWhr for coal based on other comments.
	I wonder if it would be useful to do any sensitivity analysis and to do a best estimate with upper and lower bounds. We are projecting out 13 years. We have seen already how significantly we underestimated the rate of control in the West when developing the SO2 Annex, and that was just 3 years ago. Could anybody have anticipated the extent of control in the West that has occurred in 1992 (13 years ago)?	N	Sensitivity analyses are planned by the WRAP SSJF using the final form of the spreadsheets/summaries. (See comment/response to Cummins, Moore, and Alter, below.)
Wayne Leopold, Phelps-Dodge, via email 9/23/05	The problem with growth factor difference between ASARCO and Phelps Dodge Miami (PDMI) is due to the fact that all the PDMI listings have a SCC code starting with 10, which is not correct for a smelter.	N	This was the SCC that was reported for the emission unit (combustion). No changes were made to the growth factors.
	Line 705 (Arizona spreadsheet) NOx for smelter has a permit limit but it is higher than your projection.	N	ERG will add a “Y” to permit limit fields, and a note to this effect.
Tom Moore, WRAP, via telephone 9/30/05	The three tribal power plants need to have a tribal code indicating their jurisdiction: Four Corners, Navajo, and Bonanza. All summary tables should reflect these as tribal sources (i.e., not part of the state inventory.)	Y	ERG will make this correction in the 2002 and 2018 EIs for Four Corners and Navajo. Note that the Bonanza plant will remain under UTDEQ per direction from ITEP (i.e., should not be associated with it’s tribal jurisdiction).
Pat Cummins, Tom Moore, Lee Alter, via telephone 10/3/05	<p>Summary reports need to be developed:</p> <ul style="list-style-type: none"> <li>C Show the tonnage change due to retirements (-), new sources (+), and increased capacity of existing EGUs (+) and new facilities.</li> <li>C Should show tons/year by state for the major source categories: Utilities-coal, utilities-other, smelters, refineries, cement production (e.g., top source categories), PLUS the tonnage changes (+/-) due to (1) growth/decline from existing facilities (ton changes), (2) retirements, (3) new sources/replacements, (4) post-2002 controls.</li> <li>C Show the SO2 emissions for the annex states/sources.</li> </ul>	N	ERG will develop these summary tables after addressing comments and incorporating the changes noted in this table.
	ERG should set up a final spreadsheet/database that can be used for selecting different combinations	N	ERG will do as requested.

Commenter	Comment	Affects 2002?	Response
	and groups of SCCs/source categories. This would be similar to what Lee developed for the previous projections (he'll provide an example). Will be used for sensitivity analyses, control strategy development, etc. This should be the next step after the comments are addressed from the states/tribes and the spreadsheets are finalized for 2018.		
	<p>Priorities for the near-term are to examine and QA the coal-fired EGUs and the BART sources. We need to make sure that these 2018 estimates are correct.</p> <p>Next steps in the 2018 analysis need to be:</p> <ul style="list-style-type: none"> <li>C Examining what projections say about the SO<sub>2</sub> annex sources; how do their summed emissions compare to the milestone amount?</li> <li>C Looking at ERG's assignment of location for new facilities? Which states were these placed in, which counties?</li> </ul>	N	ERG will address all comments, revise spreadsheets, and develop summary tables to aid in this assessment.
	ND (and MT) area source SO <sub>2</sub> emissions need to be addressed (too high due to EPA gap-filling)	Y	<p>ERG will make changes to ND's area source inventory for 2002 and 2018 based on comments received.</p> <p>(Note: No comments or alternative estimates were provided by MT, so no changes will be made.)</p>
	ERG's report should include explanation of why local demographic data could not be used (e.g., EGAS limitation; mostly applicable to local/O <sub>3</sub> modeling inventories), why MACT impacts on criteria pollutants weren't addressed.	N	ERG will include this information in the draft and final reports.
	<p>ERG should make changes in the NIF and IDA files for 2018 that are sent to the WRAP modelers to address:</p> <ul style="list-style-type: none"> <li>C Tribal codes for Navajo and Four Corners (on Navajo Nation) and Bonanza (on the Uintah and Ouray Reservation of the Ute Indian tribe)</li> </ul>	Y	ERG will make these changes for 2002 and 2018 for Four Corners and Navajo (not for Bonanza per ITEP direction).
Lee Alter, via email 10/14/05	C Future changes in BART codes (to be provided by Lee based on upcoming info. From states)	Y	ERG will make the changes to 2002 and 2018.
WRAP SSJF/Projections Work Group, via conference call, 10/4/05	<p>Retirement of existing facilities: The approach implemented in the spreadsheets is fine, with these exceptions:</p> <ul style="list-style-type: none"> <li>C Add a flag for new oil/diesel EGUs. These may never be built due to high price of fuel. Alternatively, they could be more viable than a natural gas plant if there is no local pipeline.</li> <li>C ERG should place new oil/diesel plants in NV (1), AZ (1), and CO or NM (1); not all in NV.</li> </ul>	N	Based on discussions with the Projections Work Group, it was assumed that no future oil EGUs would be built.
	ERG should revise the ERG Projections Memo, table on page 5, to include emissions from the new facilities, and where these are sited for projections purposes.	N	ERG will incorporate these changes into the overall draft and final report.
	Modify the approach for siting gas EGUs to follow this hierarchy:	N	No response; ERG is following

Commenter	Comment	Affects 2002?	Response
	<ol style="list-style-type: none"> <li>1. Place gas EGUs at locations indicated by agencies as a potential site; next</li> <li>2. Place gas EGUs at locations of existing gas EGUs; and next</li> <li>3. Place gas EGUs at locations of other existing fossil-fuel EGUs.</li> </ol>		procedure per 10/27/05 conference call (below).
Alison Pollack, ENVIRON, via email 10/24/05	My understanding from our emails or phone discussions was that for the point source O&G projections, you'd run out of time and just used EGAS, instead of using the growth factors that James developed from the RMPs and EIA production forecasts. Tom wants the projections to be consistent; i.e., that ERG's point source O&G projections be updated to use James' growth factors.	N	ERG will use ENVIRON's growth factors to update the projections for the applicable point source SCCs.
WRAP SSJF/Projections Work Group, via conference call, 10/27/05	Main comments/decisions during the call were: C No reason to retire coal EGUs.	N	ERG will not retire coal EGUs.
	C Current retirement/replacement assumptions for other types of EGUs and other equipment (e.g., refinery heaters) should remain the same (i.e., WA's comment will not be addressed at this time, but can be examined later in a sensitivity analysis that focuses on effects of retirement versus no retirements of certain sources). Be sure to note in projections report that extending the lifetimes of existing equipment may "mimic" the effect of retirement/replace for equipment that have already undergone PSD review or other retrofits that create emission reductions.	N	ERG will make no changes to the current retirement/replacement assumptions for non-coal EGUs. ERG will incorporate note as suggested.
	C AZDEQ comments: ERG should make technical changes, but defer procedural changes until later (i.e., documentation, etc.). The focus in the short term is in generating a complete set of 2018 base case emissions for WRAP to review and the modelers to use. Other changes can be made later.	N	No changes needed.
	<p>C Current allocation method for future EGUs doesn't make sense. Method needs to ignore the power-pool in which growth is projected, since this information can be misleading (e.g., new oil-burning EGUs are projected, but these will not be built in the West). ERG should follow this approach for allocating new coal and NG EGUs:</p> <p>#1 – What is the new capacity? Determine new capacity using previous procedure based on CTs and EIA growth projections.</p> <p>#2 – Which states/tribes get the new capacity? Document information provided by the states that indicate new/permitted plants under construction. This step will allocate part of the new capacity. Note that emissions for CA's new NG EGUs should be estimated using their stricter emission rates.</p> <p>#3 – Which specific locations get the remaining new capacity? Document information provided by states indicating new plants permitted but not yet under construction. The work group will review this information and evaluate on a case-by-case basis to determine sites of new EGUs. This allocation step will consume the remaining new capacity and associated emissions.</p>	N	ERG will develop the documented needed by the Work Group to complete the allocation of future new EGUs to specific locations.