



Technical Memorandum - Final

To: WRAP Forums and Workgroups

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Subject: WRAP Plan02d Emissions Inventory

Copy: WRAP Staff

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INTRODUCTION

The WRAP 2002 point and area sources “base case” emissions inventory was first compiled in January 2006.¹ Some issues with the 2002 base case emissions inventory were corrected, and others deferred, in work completed in May 2007.² The objective of this current project was to make a second and final revision to the 2002 emissions inventory for regional haze planning and modeling purposes. This revision is referred to as the Plan02d emissions inventory.

The focus of this project was to address specific changes in these areas:

- Address the remaining 2002 issues that were deferred from the work completed in May 2007;
- Update the current status of point sources related to the Best Available Retrofit Technology (BART) requirements under the regional haze rule; and
- Correct erroneous or missing Standard Industrial Classification (SIC) and/or source classification code (SCC) codes.

The remaining contents of this memo describe the project scope, explain the methodology used to identify and make changes to the inventory, and present summary results for the WRAP region and detailed results for each jurisdiction.³

SCOPE

The scope of this project covers stationary point and area sources located within the WRAP states of Alaska, Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, North Dakota,

¹ “Quality Assurance of the WRAP 2002 Stationary Sources Emissions Inventory – Final,” submitted to the WGA and the WRAP Stationary Sources Joint Forum by Eastern Research Group, Inc. Download at: <http://www.wrapair.org/forums/ssjf/documents/eictts/projections.html>

² “WRAP 2018 Preliminary Reasonable Progress Emissions Inventory – Final, Revised,” submitted to the WRAP Forums and Workgroups by Eastern Research Group, Inc. Download at: <http://www.wrapair.org/forums/ssjf/documents/eictts/projections.html>

³ The Regional Haze Rule explicitly recognized the authority of tribes to implement the provisions of the Rule, in accordance with principles of Federal Indian law, and as provided by the Clean Air Act §301(d) and the Tribal Authority Rule (TAR) (40 CFR §§49.1-.11). It is our hope that the finding and recommendations in this report will prove useful to tribes, whether they choose to submit full or partial 308 or 309 Tribal Implementation Plans (TIPs), or work with the U.S. EPA to develop Federal Implementation Plans (FIPs). The authors of this memo have strived to ensure that all references to tribes in the document are consistent with principles of tribal sovereignty and autonomy as reflected in the regulatory framework. Any inconsistency with this framework is strictly inadvertent and not an attempt to impose requirements on tribes which are not present under existing law.

Oregon, South Dakota, Utah, Washington, and Wyoming, plus tribal sources within those states. Certain area sources are excluded because they have been dealt with by other contractor teams (i.e., fugitive dust, fires, area ammonia sources, etc.). Updates to the oil and gas (O&G) area and point source emissions were developed by ENVIRON under another project, and provided to ERG for inclusion with the other point and area sources in this Plan02d emissions inventory (i.e., Final Phase II Oil and Gas Inventory Report).⁴ The California emissions were not modified in any way and were retained as-is from the previous WRAP 2002 base case emissions inventory.

The deliverables produced under this project include, in addition to a draft and final technical memorandum, WRAP Plan02d inventory pivot tables (similar to those provided under ERG's previous projects). ERG also provided Plan02d files formatted for modeling (i.e., SMOKE/IDA format) and for use in the WRAP EDMS (i.e., NIF3.0).

METHODOLOGY

Using the 2002 revised emissions inventory (May 2007) as a basis, spreadsheets were developed that contained multiple worksheets with the following information:

- README file containing background on spreadsheet content, and how to respond.
- BART status lists.
- Potentially erroneous SIC and/or SCC lists.

BART status lists. The WRAP 2002 emissions inventory database was updated to reflect the most current (at the time) BART flags based on the information contained in the WRAP BART "Clearinghouse" spreadsheet (2007-10-31_WRAP BART Tracking Sheet.xls). Spreadsheets were generated, by state and tribe, that contained the records with assigned BART flags (i.e., Y for "yes-the source is either subject to or eligible for BART"; N for "no-the source has been determined not to be subject to or eligible for BART"). A focus of this review was to ensure that the flags were assigned correctly, and that the appropriate records (i.e., units or SCCs) carried the flag. In some cases, the BART clearinghouse did not denote the specific unit at a subject facility, so ERG assigned the flag to all records associated with the facility. The agencies were requested to confirm this assignment.

Potentially erroneous SIC/SCC lists. An objective of this project was to correct any mistakes in the SICs and/or SCCs for a given facility, with a focus on SIC 4911 (Electric Services), SIC 4931 (Combination Electric and Gas and Other Utilities), and SCC 101xxxxx (External Combustion Boilers, Electric Generation). During previous updates, it became apparent that some records were coded with a SCC of 10100501 (External Combustion Boilers: Electric Generation – Distillate Oil – Grades 1 and 2 Oil), for example, when they should have been coded with a SCC of 10200501 (External Combustion Boilers: Industrial – Distillate Oil – Grades 1 and 2 Oil).

The spreadsheets containing the README worksheet, BART flags worksheet, and SIC/SCC list worksheet were transmitted via e-mail to each agency. For a few agencies, there were also some outstanding issues that were carried over from the WRAP 2018 Preliminary Reasonable Progress emissions inventory (PRP18) analysis in May which affected 2002 emissions; agencies were asked to respond to questions or confirm changes to be made in the corresponding 2002 record(s).

⁴ "WRAP Area Source Emissions Inventory Projections and Control Strategy Evaluation-Phase II," submitted to the WGA by ENVIRON International. Download at: <http://www.wrapair.org/forums/ssjf/documents/eiccts/oilgas.html>

After each agency responded, updates were made to the 2002 emissions inventory data to reflect the changes. Also, at this time, ENVIRON's Phase II oil and gas (area sources, only) changes were made. The result was the Plan02d emissions inventory.

WRAP Plan02d EMISSIONS INVENTORY RESULTS – SUMMARY

Tables 1 and 2 show the previous 2002 base case emissions inventory, the net changes made as a result of this project, and the resulting WRAP Plan02d emissions inventory at the state/tribal level, for point and area sources. Tables 3 and 4 show a detailed break-out of changes for the individual tribes. The most significant changes occurred in these areas:

- Arizona point sources:
 - Added new facility (Arizona Clean Fuels) based on data received during the PRP18 project.
 - Added previously missing NO_x records at three facilities (i.e., Nelson Lime, Snowflake mill, and Arizona Portland Cement).
- Colorado point sources: Moved emissions for 39 oil and gas point sources from Colorado to the Southern Ute Indian Tribe of the Southern Ute Reservation, Colorado.
- Nevada point sources: Added previously missing PM₁₀ and PM_{2.5} records at six facilities based on data provided during PRP18 project.
- New Mexico area sources: Updated oil and gas emissions using ENVIRON Phase II changes. (Corresponding changes had been incorporated into the projections during the PRP18 project.)
- Oregon point sources: Added two previously missing sources in Lane County.
- South Dakota area sources: Revised distillate fuel combustion emissions using data received during the PRP18 project.
- Utah:
 - Point sources: Moved Bonanza power plant from Utah to the Ute Indian Tribe of the Uintah and Ouray Reservation, Utah, based on feedback received during PRP18 project.
 - Area sources: Updated oil and gas emissions using ENVIRON Phase II changes.
- Washington:
 - Point sources: Replaced 2002 emissions with 2005 emissions at one facility (Mutual Materials).
 - Area sources: Replaced 2002 woodsmoke emissions with 2005 emissions.
- Tribes:
 - Point sources: Moved Bonanza and Riverbend Field power plants from Utah to the Ute Indian Tribe of the Uintah and Ouray Reservation, Utah, based on feedback received during PRP18 project. Also, moved 39 oil and gas point sources from Colorado to Southern Ute Indian Tribe of the Southern Ute Reservation, Colorado.
 - Area Sources: Updated oil and gas emissions using ENVIRON Phase II changes (note that when these emissions were revised in Phase II, the tribal codes were dropped and the State-County FIPs code was retained. Therefore, these emissions appear under the state totals for Plan02d.)
- Wyoming area sources: Updated oil and gas emissions using ENVIRON Phase II changes.

Table 5 shows the changes in emissions between the Plan02d inventory and the PRP18 inventory (i.e., PRP18 – Plan02d) for point and area sources. The absolute change, in tons per year, is summarized at the state/tribal level. For details on the methods used to estimate the PRP18 point and area sources, see the PRP18 technical memo.² Note that significant reductions are expected in point source SO₂ emissions (and to a lesser extent to point source NO_x emissions) as a result of BART implementation by 2018. Also, note that a few inconsistencies now exist in the PRP18 as compared to the Plan02d inventory due to the changes made in this current project for Plan02d, that have not yet been accounted for in the projections. These inconsistencies include the following:

- Arizona NO_x emissions at three facilities were added in Plan02d, but these are not accounted for in the PRP18 inventory.
- Washington woodsmoke Plan02d emissions are based on the state's 2005 inventory, although the PRP18 is projected from a 2002 baseline. Also, Mutual Materials' Plan02d emissions are based on the state's 2005 inventory, although PRP18 is projected from a 2002 baseline.
- The 39 oil and gas point sources moved from Colorado to the Southern Ute Indian Tribe of the Southern Ute Reservation, Colorado, are still included under Colorado (not tribal) in the PRP18 inventory.
- Two new point sources in Lane Co., Oregon, are accounted for in the Plan02d inventory, but these facilities are not in the PRP18 inventory.

WRAP plans to update the 2018 emissions inventory sometime in 2008. This inventory, to be called the Final Reasonable Progress 2018 (FRP18) emissions inventory, will include the changes necessary to resolve inconsistencies between the Plan02d and the projected inventory as listed above.

Also, it should be noted that a change to NO_x emissions in Utah made by ENVIRON in the Phase II oil and gas area sources inventory for 2018 were not included in the PRP18 (May 2007) inventory for area sources. Therefore, Table 5 over-reports the area source NO_x emissions change in Utah by 1,173 tons. (The same problem occurs in the PRP18 pivot tables). This correction to Utah's area source NO_x emissions will be made in the future FRP18 emissions inventory.

Table 1. Summary of WRAP 2002 Base Case Emissions Inventory, Net Changes Made by State, and Resulting WRAP Plan02d Emissions Inventory – Point Sources (Tons per Year)

State	NO _x	SO ₂	VOC	CO	PM ₁₀	PM _{2.5}	NH ₃
WRAP 2002 Base Case Emissions Inventory							
AK	74,471.70	6,809.40	5,686.30	27,907.40	5,932.30	1,236.50	578.80
AZ	64,084.30	93,752.40	5,451.20	15,232.30	9,529.10	1,053.30	528.90
CA	104,434.65	42,119.81	54,159.58	120,089.10	29,945.67	20,275.86	433.38
CO	117,868.69	97,010.79	91,750.12	35,950.71	21,125.25	29.01	538.70
ID	11,487.20	17,597.00	2,112.90	23,981.90	1,087.20	442.10	1,074.20
MT	53,414.54	36,878.81	7,576.93	33,198.83	8,127.49	309.01	317.72
ND	87,425.40	156,667.70	2,086.30	11,944.50	3,277.10	2,712.00	517.90
NM	100,352.26	37,435.50	17,573.73	36,588.57	3,826.49	2,678.06	75.01
NV	59,775.06	50,721.62	2,213.37	11,091.99	4,762.99	1,100.54	629.30
OR	24,958.50	17,586.70	27,844.80	35,493.80	10,441.50	8,884.70	948.30
SD	20,697.50	14,021.40	2,542.40	4,700.10	973.60	246.30	99.70
UT	91,043.64	42,837.73	7,481.70	51,572.07	12,903.77	4,472.98	1,936.59
WA	43,631.19	52,968.90	18,616.10	114,317.47	9,911.96	3,641.55	3,863.01
WY	117,883.34	119,644.56	19,663.21	36,361.22	31,731.03	13,653.09	684.75
Tribes	87,214.80	38,207.73	1,710.26	6,297.30	6,329.23	3,005.76	125.44
Total	1,058,742.76	824,260.05	266,468.91	564,727.26	159,904.68	63,740.77	12,351.70
Net Changes to 2002 Base Case Emissions Inventory							
AK	-0.98	1.90	1.94	2.26	0.70	0.25	-0.93
AZ	5,883.98	963.17	13.09	664.21	3.46	5.92	1.81
CA							
CO	-2,383.89	961.44	-517.98	-1,346.04	-69.41		-85.85
ID	-1.17	-0.14	0.27	-1.05	-2.52	0.84	-31.33
MT	1.00						
ND	-0.37	0.39	-0.61	-0.70	-0.19	-0.24	0.21
NM	34.34	0.10					
NV	88.58	-1.81	1.35	-3.04	737.70	1,622.75	-290.50
OR	1,201.61	906.37	917.39	3,152.82	478.56	0.37	-29.35
SD	0.30	3.00	0.05	-0.54	0.05	-0.02	0.01
UT	-6,825.58	-974.45	-115.12	-533.28	-813.09	-672.72	-31.54
WA	-275.93	-84.01	35.16	-70.88	-33.62	-0.47	
WY	-77.26	72.76	-61.60	-39.40			
Tribes	10,256.70	1,258.15	691.42	1,960.23	1,043.59	724.98	31.44
Total	7,901.33	3,106.87	965.35	3,784.59	1,345.25	1,681.67	-436.03

Table 1. Continued

State	NO _x	SO ₂	VOC	CO	PM ₁₀	PM _{2.5}	NH ₃
WRAP Plan02d Emissions Inventory							
AK	74,470.72	6,811.30	5,688.24	27,909.66	5,933.00	1,236.75	577.87
AZ	69,968.28	94,715.57	5,464.29	15,896.51	9,532.56	1,059.22	530.71
CA	104,434.65	42,119.81	54,159.58	120,089.10	29,945.67	20,275.86	433.38
CO	115,484.79	97,972.23	91,232.14	34,604.67	21,055.84	29.01	452.86
ID	11,486.03	17,596.86	2,113.17	23,980.85	1,084.68	442.94	1,042.87
MT	53,415.54	36,878.81	7,576.93	33,198.83	8,127.49	309.01	317.72
ND	87,425.03	156,668.09	2,085.69	11,943.80	3,276.91	2,711.76	518.11
NM	100,386.60	37,435.60	17,573.73	36,588.57	3,826.49	2,678.06	75.01
NV	59,863.64	50,719.81	2,214.73	11,088.95	5,500.69	2,723.29	338.80
OR	26,160.11	18,493.07	28,762.19	38,646.62	10,920.06	8,885.07	918.95
SD	20,697.81	14,024.40	2,542.45	4,699.56	973.65	246.28	99.71
UT	84,218.06	41,863.28	7,366.58	51,038.79	12,090.69	3,800.26	1,905.05
WA	43,355.26	52,884.89	18,651.26	114,246.59	9,878.34	3,641.08	3,863.01
WY	117,806.08	119,717.32	19,601.61	36,321.82	31,731.03	13,653.09	684.74
Tribes	97,471.50	39,465.88	2,401.67	8,257.53	7,372.82	3,730.75	156.88
Total	1,066,644.09	827,366.92	267,434.26	568,511.86	161,249.93	65,422.44	11,915.67

Table 2. Summary of 2002 Base Case Emissions Inventory, Net Changes Made by State and Resulting WRAP Plan02d Emissions Inventory – Area Sources (Tons per Year)

State	NO _x	SO ₂	VOC	CO	PM ₁₀	PM _{2.5}	NH ₃
WRAP 2002 Base Case Emissions Inventory							
AK	8,487.55	5,531.22	13,020.22	27,258.02	15,041.91	5,473.97	472.26
AZ	9,048.99	2,676.88	108,331.50	49,957.20	99,963.30	28,289.57	5,921.58
CA	114,470.74	8,314.10	343,778.12	374,891.19	179,931.99	85,948.07	7.51
CO	34,846.41	6,558.83	124,578.22	87,627.93	157,874.88	42,611.85	76.82
ID	30,317.73	2,916.32	123,943.73	34,271.26	50,992.15	5,728.86	1,683.77
MT	12,072.41	3,299.00	55,104.40	36,902.77	153,206.91	35,455.92	459.62
ND	15,457.19	5,747.77	69,795.21	21,969.75	287,621.64	60,307.74	367.94
NM	85,576.31	6,559.04	219,124.12	37,284.27	109,380.73	26,625.91	635.54
NV	5,787.15	12,954.26	29,977.14	13,736.71	68,008.63	16,074.19	1,119.53
OR	14,825.49	9,932.16	251,802.26	352,955.19	177,459.68	69,096.18	226.55
SD	6,345.30	10,166.62	42,660.92	24,248.91	209,040.71	45,028.53	380.73
UT	11,335.35	3,581.32	85,319.90	42,929.37	30,255.92	4,974.81	1,319.99
WA	18,354.60	7,387.84	198,283.16	222,554.84	283,542.33	93,471.53	4,470.64
WY	34,891.29	17,902.20	140,247.97	29,291.93	37,511.44	10,803.57	389.01
Tribes	2,932.12	49.17	8,471.84	283.29	1,978.21	398.11	0.05
Total	404,748.61	103,576.74	1,814,438.69	1,356,162.63	1,861,810.42	530,288.80	25,034.02
Net Changes to 2002 Base Case Emissions Inventory							
AK							
AZ	17.31		46.29	1.87			
CA							
CO	371.04	-141.42	1,873.51	3,462.86			
ID			399.09				
MT	-234.93	-1.69	4.84	0.25			
ND							
NM	-4,236.00	-1,194.02	57,494.50	28,769.89			
NV							
OR							
SD	-3,087.92	-9,089.49	-23.08	-1,208.77	-2,557.41	-535.23	-43.11
UT	-1,854.77	-130.36	1,203.59	91.82			
WA	-767.43	-77.29	-35,081.49	-46,218.61	-6,297.91	-4,935.40	
WY	-4,974.20	-1,062.96	4,419.71	2,196.10			
Tribes	-2,875.38	-47.88	-7,097.26	-163.24			
Total	-17,642.27	-11,745.10	23,239.71	-13,067.84	-8,855.33	-5,470.63	-43.11

Table 2. Continued

State	NO _x	SO ₂	VOC	CO	PM ₁₀	PM _{2.5}	NH ₃
WRAP Plan02d Emissions Inventory							
AK	8,487.55	5,531.22	13,020.22	27,258.02	15,041.91	5,473.97	472.26
AZ	9,066.30	2,676.88	108,377.79	49,959.07	99,963.30	28,289.57	5,921.58
CA	114,470.74	8,314.10	343,778.12	374,891.19	179,931.99	85,948.07	7.51
CO	35,217.45	6,417.41	126,451.73	91,090.79	157,874.88	42,611.85	76.82
ID	30,317.73	2,916.32	124,342.82	34,271.26	50,992.15	5,728.86	1,683.77
MT	11,837.48	3,297.31	55,109.24	36,903.02	153,206.91	35,455.92	459.62
ND	15,457.19	5,747.77	69,795.21	21,969.75	287,621.64	60,307.74	367.94
NM	81,340.31	5,365.02	276,618.62	66,054.16	109,380.73	26,625.91	635.54
NV	5,787.15	12,954.26	29,977.14	13,736.71	68,008.63	16,074.19	1,119.53
OR	14,825.49	9,932.16	251,802.26	352,955.19	177,459.68	69,096.18	226.55
SD	3,257.38	1,077.13	42,637.83	23,040.14	206,483.30	44,493.30	337.62
UT	9,480.57	3,450.96	86,523.49	43,021.19	30,255.92	4,974.81	1,319.99
WA	17,587.17	7,310.55	163,201.68	176,336.23	277,244.42	88,536.13	4,470.64
WY	29,917.09	16,839.25	144,667.67	31,488.02	37,511.44	10,803.57	389.01
Tribes	56.74	1.30	1,374.58	120.05	1,978.21	398.11	0.05
Total	387,106.34	91,831.64	1,837,678.40	1,343,094.79	1,852,955.09	524,818.17	24,990.90

Table 3. Summary of WRAP 2002 Base Case Emissions Inventory, Net Changes Made by Tribe, and Resulting WRAP Plan02d Emissions Inventory – Point Sources (Tons per Year)

Tribe	Tribal FIPs	NO _x	SO ₂	VOC	CO	PM ₁₀	PM _{2.5}	NH ₃
WRAP 2002 Base Case Emissions Inventory								
Confederated Tribes of the Colville Reservation, Washington	101	227.00	22.30	57.88	570.02	307.91		
Puyallup Tribe of the Puyallup Reservation, Washington	115							
Confederated Tribes and Bands of the Yakama Nation, Washington	124	59.72	16.22	120.36	95.22	96.02		
Confederated Tribes of the Umatilla Reservation, Oregon	143					5.54	0.96	
Shoshone-Bannock Tribes of the Fort Hall Reservation of Idaho	180	854.66	1.20	20.15	106.11	1.54		
Coeur d'Alene Tribe of the Coeur d'Alene Reservation, Idaho	181	322.74	12.34	289.44	569.28	1,126.54		
Assiniboine and Sioux Tribes of the Fort Peck Indian Reservation, Montana	206	151.43	1.14	24.66	103.91	42.26		
Arapahoe Tribe of the Wind River Reservation, Wyoming	281	54.22	938.61	59.67		10.67		
Cabazon Band of Cahuilla Mission Indians of the Cabazon Reservation, California	568	190.00	52.00	11.00	4.00	9.00		
La Posta Band of Diegueno Mission Indians of the La Posta Indian Reservation, California	577	1.20	0.14	0.08	0.38	4.99		
Fort Mojave Indian Tribe of Arizona, California & Nevada	604					12.70		
Tohono O'Odham Nation of Arizona	610	41.80	2.75			67.58		
Gila River Indian Community of the Gila River Indian Reservation, Arizona	614	65.13	14.97	124.14	68.58	180.71		
Salt River Pima-Maricopa Indian Community of the Salt River Reservation, Arizona	615	212.29	64.50	29.03	95.02	283.96	68.83	
Ute Indian Tribe of the Uintah & Ouray Reservation, Utah	687/750							
Pueblo of Laguna, New Mexico	707	1,438.58	0.25	10.26				
Pueblo of Santa Ana, New Mexico	715	208.66	53.44	48.56	63.53	54.40		
Ute Mountain Tribe of the Ute Mountain Reservation, Colorado, New Mexico & Utah	751					22.99	6.96	
Navajo Nation, Arizona, New Mexico & Utah	780	83,387.39	37,027.86	915.02	4,621.27	4,115.11	2,929.01	125.44
Total		87,214.80	38,207.73	1,710.26	6,297.30	6,341.93	3,005.76	125.44
Net Changes to 2002 Base Case Emissions Inventory								
Confederated Tribes of the Colville Reservation, Washington	101							
Puyallup Tribe of the Puyallup Reservation, Washington	115	283.46	108.66		70.86	151.37	53.47	
Confederated Tribes and Bands of the Yakama Nation, Washington	124							
Confederated Tribes of the Umatilla Reservation, Oregon	143							
Shoshone-Bannock Tribes of the Fort Hall Reservation of Idaho	180							
Coeur d'Alene Tribe of the Coeur d'Alene Reservation, Idaho	181							
Assiniboine and Sioux Tribes of the Fort Peck Indian Reservation, Montana	206							
Arapahoe Tribe of the Wind River Reservation, Wyoming	281	93.30	193.20	61.60	39.40			
Cabazon Band of Cahuilla Mission Indians of the Cabazon Reservation, California	568							

Table 3. Continued

Tribe	Tribal FIPs	NO_x	SO₂	VOC	CO	PM₁₀	PM_{2.5}	NH₃
La Posta Band of Diegueno Mission Indians of the La Posta Indian Reservation, California	577							
Fort Mojave Indian Tribe of Arizona, California & Nevada	604	96.60	6.30					
Tohono O'Odham Nation of Arizona	610							
Gila River Indian Community of the Gila River Indian Reservation, Arizona	614							
Salt River Pima-Maricopa Indian Community of the Salt River Reservation, Arizona	615	-123.38	-37.42	-3.29	-28.27	-2.97	-1.21	
Ute Indian Tribe of the Uintah & Ouray Reservation, Utah	687/750	9,906.72	987.41	633.11	1,878.23	882.49	672.72	31.44
Pueblo of Laguna, New Mexico	707							
Pueblo of Santa Ana, New Mexico	715							
Ute Mountain Tribe of the Ute Mountain Reservation, Colorado, New Mexico & Utah	751							
Navajo Nation, Arizona, New Mexico & Utah	780							
Total		10,256.70	1,258.15	691.41	1,960.23	1,030.89	724.98	31.44
WRAP Plan02d Emissions Inventory								
Confederated Tribes of the Colville Reservation, Washington	101	227.00	22.30	57.88	570.02	307.91		
Puyallup Tribe of the Puyallup Reservation, Washington	115	283.46	108.66		70.86	151.37	53.47	
Confederated Tribes and Bands of the Yakama Nation, Washington	124	59.72	16.22	120.36	95.22	96.02		
Confederated Tribes of the Umatilla Reservation, Oregon	143					5.54	0.96	
Shoshone-Bannock Tribes of the Fort Hall Reservation of Idaho	180	854.66	1.20	20.15	106.11	1.54		
Coeur d'Alene Tribe of the Coeur d'Alene Reservation, Idaho	181	322.74	12.34	289.44	569.28	1,126.54		
Assiniboine and Sioux Tribes of the Fort Peck Indian Reservation, Montana	206	151.43	1.14	24.66	103.91	42.26		
Arapahoe Tribe of the Wind River Reservation, Wyoming	281	147.52	1,131.81	121.27	39.40	10.67		
Cabazon Band of Cahuilla Mission Indians of the Cabazon Reservation, California	568	190.00	52.00	11.00	4.00	9.00		
La Posta Band of Diegueno Mission Indians of the La Posta Indian Reservation, California	577	1.20	0.14	0.08	0.38	4.99		
Fort Mojave Indian Tribe of Arizona, California & Nevada	604	96.60	6.30			12.70		
Tohono O'Odham Nation of Arizona	610	41.80	2.75			67.58		
Gila River Indian Community of the Gila River Indian Reservation, Arizona	614	65.13	14.97	124.14	68.58	180.71		
Salt River Pima-Maricopa Indian Community of the Salt River Reservation, Arizona	615	88.91	27.08	25.74	66.75	280.99	67.62	
Ute Indian Tribe of the Uintah & Ouray Reservation, Utah	687/750	9,906.72	987.41	633.11	1,878.23	882.49	672.72	31.44
Pueblo of Laguna, New Mexico	707	1,438.58	0.25	10.26				
Pueblo of Santa Ana, New Mexico	715	208.66	53.44	48.56	63.53	54.40		
Ute Mountain Tribe of the Ute Mountain Reservation, Colorado, New Mexico & Utah	751					22.99	6.96	
Navajo Nation, Arizona, New Mexico & Utah	780	83,387.39	37,027.86	915.02	4,621.27	4,115.11	2,929.01	125.44
Total		97,471.50	39,465.87	2,401.67	8,257.53	7,372.82	3,730.74	156.88

Table 4. Summary of WRAP Plan02d Base Case Emissions Inventory, Net Changes by Tribe, and Resulting WRAP Plan02d Emissions Inventory – Area Sources (Tons per Year)

Tribe	Tribal FIPs	NO _x	SO ₂	VOC	CO	PM ₁₀	PM _{2.5}	NH ₃
WRAP 2002 Base Case Emissions Inventory								
Arapahoe Tribe of the Wind River Reservation, Wyoming	281	1,168.94	46.06	3,960.63	49.19			
Assiniboine and Sioux Tribes of the Fort Peck Indian Reservation, Montana	206	56.69	1.29	1,374.13	118.08	1,976.23	398.11	0.05
Cortina Indian Rancheria of Wintun Indians of California	513	0.03		0.45	1.96	1.77		
La Posta Band of Diegueno Mission Indians of the La Posta Indian Reservation, California	577	0.03	0.01		0.01	0.21		
Navajo Nation, Arizona, New Mexico & Utah	780	1,166.58	1.72	2,343.60	101.43			
Ute Mountain Tribe of the Ute Mountain Reservation, Colorado, New Mexico & Utah	751	539.86	0.10	793.03	12.61			
Total		2,932.12	49.17	8,471.84	283.29	1,978.21	398.11	0.05
Net Changes to 2002 Base Case Emissions Inventory								
Arapahoe Tribe of the Wind River Reservation, Wyoming	281	-1,168.94	-46.06	-3,960.63	-49.19			
Assiniboine and Sioux Tribes of the Fort Peck Indian Reservation, Montana	206							
Cortina Indian Rancheria of Wintun Indians of California	513							
La Posta Band of Diegueno Mission Indians of the La Posta Indian Reservation, California	577							
Navajo Nation, Arizona, New Mexico & Utah	780	-1,166.58	-1.72	-2,343.60	-101.43			
Ute Mountain Tribe of the Ute Mountain Reservation, Colorado, New Mexico & Utah	751	-539.86	-0.10	-793.03	-12.61			
Total		-2,875.38	-47.88	-7,097.26	-163.24			
WRAP Plan02d Emissions Inventory								
Arapahoe Tribe of the Wind River Reservation, Wyoming	281							
Assiniboine and Sioux Tribes of the Fort Peck Indian Reservation, Montana	206	56.69	1.29	1,374.13	118.08	1,976.23	398.11	0.05
Cortina Indian Rancheria of Wintun Indians of California	513	0.03		0.45	1.96	1.77		
La Posta Band of Diegueno Mission Indians of the La Posta Indian Reservation, California	577	0.03	0.01		0.01	0.21		
Navajo Nation, Arizona, New Mexico & Utah	780							
Ute Mountain Tribe of the Ute Mountain Reservation, Colorado, New Mexico & Utah	751							
Total		56.74	1.30	1,374.58	120.05	1,978.21	398.11	0.05

Table 5. Summary of Changes in WRAP Emissions Inventory between Plan02d and PRP18 – Point Sources and Area Sources (Tons per Year) ^a

State	NO _x	SO ₂	VOC	CO	PM ₁₀	PM _{2.5}	NH ₃
Point Sources							
AK	-6,511.30	743.94	949.07	-2,028.58	-4,166.63	-879.44	526.08
AZ	3,103.04	-24,378.60	4,213.78	18,142.63	1,344.97	629.40	222.38
CA	5,080.24	7,511.94	472.12	3,706.05	3,246.01	-779.02	-433.38
CO	-2,124.17	-40,993.73	-13,703.21	29,389.16	7,239.98	66.52	84.33
ID	886.78	-7,651.61	905.48	11,245.95	321.44	112.65	575.92
MT	8,949.65	-398.62	2,924.20	30,155.53	3,006.74	136.20	103.96
ND	-16,369.02	-89,589.56	409.32	9,051.77	2,113.44	77.52	-56.22
NM	-25,786.16	-5,055.31	8,613.62	20,787.37	-509.13	-1,016.15	43.31
NV	7,761.37	-22,552.86	1,651.03	16,625.66	535.53	-130.35	525.66
OR	-1,212.81	-10,541.08	11,876.32	11,505.78	2,164.20	-7,602.53	-87.13
SD	4,029.07	-8,190.08	980.34	2,153.31	71.21	10.64	1.89
UT	-4,456.78	-3,925.17	5,826.78	45,414.19	3,387.19	700.62	145.44
WA	6,101.06	-15,440.91	7,560.83	-6,649.62	-152.62	745.44	1,602.78
WY	15,409.63	-24,573.38	8,668.58	28,460.56	11,108.17	5,514.11	126.12
Tribes	3,031.49	-11,066.27	780.15	5,302.57	1,669.31	11.55	
Total	-2,107.91	-256,101.28	42,128.41	223,262.36	31,379.80	-2,402.81	3,381.15
Area Sources							
AK	690.11	512.42	3,439.21	1,797.40	6,489.14	1,403.75	166.97
AZ	3,732.53	731.33	62,579.92	28,005.26	36,797.05	11,335.05	3,535.56
CA	3,245.89	1,458.12	13,967.43	10,075.52	11,055.10	-1,146.86	-7,510.00
CO	14,631.56	1,083.26	53,221.93	8,176.92	27,363.46	5,810.67	19.94
ID	11,750.17	136.99	69,867.24	6,700.22	11,888.42	1,973.88	604.63
MT	7,566.32	133.17	18,921.29	4,413.70	20,685.33	4,559.55	148.30
ND	17,863.00	109.87	17,771.59	-323.66	23,650.89	4,670.63	95.06
NM	27,074.99	10,383.60	61,785.17	19,898.92	32,219.43	7,111.58	274.01
NV	1,691.15	1,240.16	23,202.77	3,741.51	29,747.04	7,238.69	526.13
OR	2,197.67	-1,510.28	83,064.55	27,568.69	48,465.00	12,648.37	23.25
SD	1,746.16	3,007.49	7,600.10	1,046.86	17,592.84	3,663.90	158.18
UT ^b	6,454.43	131.83	73,425.02	2,934.40	4,023.36	786.01	359.84
WA	5,158.78	1,356.72	90,508.15	76,110.39	71,084.93	25,448.57	2,551.10
WY	23,888.32	6,257.72	192,331.55	7,529.10	7,515.77	1,632.22	125.05
Tribes	6,582.29	0.78	16,865.70	443.94	84.25	14.11	0.02
Total	134,273.36	25,033.16	788,551.63	198,119.16	348,662.03	87,150.12	1,078.02

^a A few inconsistencies exist in the PRP18 emissions inventory as compared to the Plan02d emission inventory due to the changes made in this current project for Plan02d that have not yet been account for in the projections. See page 4 of this memo for details. These inconsistencies are reflected in the results shown on this table.

^b The area source NO_x emissions change for Utah is over-reported in this table by 1,176 tons due to a reduction in oil and gas emissions that has not yet been made in this overall area source emissions inventory for 2018.

All inconsistencies/changes for 2018 will be corrected in the future WRAP 2018 Final Reasonable Progress (FRP18) emissions inventory analysis.

ATTACHMENT 1:

**SUMMARY OF COMMENTS RECEIVED
AND RESPONSES DURING THE PLAN02D PROJECT**

Summary of Comments Received and Responses during the Plan02d Project

State	Commenter	Date Comment Rec'd	Comment Summary	Comment Attachment (File Name)	Impact on 2018?	ERG Status
AK	A. Edwards	Carryover from PRP18 update	Responded to questions about 2 missing coal-fired boilers in 2002 and 2018 at US Army Ft. Wainwright	N/A	Yes - control level for PM ₁₀ to be added to other 2 boilers	ERG confirmed that there are 6 coal-fired boilers in the EIs for 2002 and 2018 for this facility. We will add the controls to the other 2 boilers on the next 2018 update.
AK	A. Edwards	8/17/2007	Sent spreadsheet with changes to some BART flags, and 1 facility's SIC.	AK BART and SIC_SCC Review_from Alice 081707.xls	Yes - will need to make same flag and SIC changes in 2018.	Changes made for 2002, only.
AZ	L. Toopal	8/28/2007	Requested changes in BART flags (including Maricopa County sources [FIPs04013]). Added NOx records for some non-EGU sources that were missing in 2002 (2 records at Nelson Lime, 1 record at Snowflake Pulp and 1 record at Arizona Portland Cement). Requested some SIC/SCC changes.	AZ BART and SIC_SCC Review_Latha082907.xls	Yes - will need to make same BART flag changes in 2018. Also, will need to project new NOx emissions that were added at non-EGU sources.	Made all changes in all counties except 04013 (Maricopa Co., deferred to B Downing comments, below).
AZ-Maricopa	B. Downing	8/20/2007	Sent spreadsheet with changes: APS Phoenix West (changes some BART flags from Y to N); Deleted a couple of SIC/SCC records and changed 1 from 101xxx to 102xxx.		Yes – will need to make same changes in 2018.	Made changes to 2002. Changed SIC for Microchip technology (fac id 1203, 52 records), deleted 7 records with SCC 10100602 from Bonded logic inc (Fac id 43124)
AZ-Maricopa	B. Downing	10/16/2007	Email from Bob: Maricopa County is developing a 5% Plan for PM ₁₀ reductions, totaling about 18,000 TPY by 2010 (equivalent to 5%/yr reductions for 3 years, plus an additional year's worth of contingency measures). Is there still time to get these reflected in the final FRP18 inventory? If so, how best to go about this?		Yes - will need to incorporate into FRP18 revision	ERG sent email to Bob, advising to revisit this issue during FRP18 process.
AZ-Pinal	S. DiBiase	Carryover from PRP18 update	(8/2 ERG e-mail to Scott asks for info on Desert Basin CO emission. He commented in PRP18 process that these were too high. Sent him Desert Basin records and asked which ones needed to be changed. 8/23 e-mail to follow-up request.)	AZ-04013 BART and SIC-SCC Review.xls	None	N/A - request for information not responded to by agency

Summary of Comments Received and Responses During the Plan02d Project (Continued)

State	Commenter	Date Comment Rec'd	Comment Summary	Comment Attachment (File Name)	Impact on 2018?	ERG Status
CA	T. Suarez-Murias	8/21/2007	Sent spreadsheets with some clarifying comments related to BART determinations; no flags were changed	CA BART Interim 8-20-07.xls	None	No response required.
CO	C. Taipale	8/14/2007	Change some BART flags for: PSC Cherokee, Colorado Refining Co. (now Suncor Refining East Plant), PSC Valmont, CEMEX Inc./Lyons Cement Plant, CSU Drake, Trigen, TSG Craig, PSC Pawnee, PSC Comanche, PSC Hayden Facility name changes - Colorado Refining Co. (2006 changed to Suncor Refining East Plant); Trigen Colorado Energy Corp (now known as Colorado Energy Nations Company [CENC])	CO BART and SIC_SCC_Review_Curt&Roy.xls	Yes - will need to make same BART flag, facility name (leave IDs the same) and SCC changes in 2018.	Changes made to 2002: BART flags, name and SCC changes as requested.
CO	R. Doyle	8/13/2007	Change 24 different SCCs (no SIC changes)			
CO/Southern Ute	T. Moore	10/31/2007	Pointed out that Roy Doyle had identified a number of o&g point sources in SW CO that belong to Southern Ute Indian Tribe of the Southern Ute Reservation, and should be coded as tribal sources	SouthernUtePointSources_Oil & Gas.xls (from ENVIRON)	Yes - will need to make same changes in 2018.	ERG changed State code to 000 and added tribal code (750)
ID	C. Ramsdell	Carryover from PRP18 update	During PRP18 project, noticed missing SCCs for BAF Blackfoot and Larsen Farms. Provided all 2002 emissions from ID database for these 2 facilities.	2002BAFB_Larsen_Stagel_I_Refueling.xls	None	ERG compared the emissions from IDEQ to the current 2002 WRAP EI; they are the same. The original issue was that 1 SCC was missing for each facility, but it appears that this has been resolved. No additional changes are needed.
ID	M. Edwards	Carryover from PRP18 update	During PRP18 project, mentioned that area source 2002 NOx emissions for SCC 2102006000 (Industrial NG boilers) and SCC 2102008000 (Industrial wood boilers) might need to be changed to 2005 inventory values. Mike said that issue still needs to be addressed.		None	No response required.

Summary of Comments Received and Responses During the Plan02d Project (Continued)

State	Commenter	Date Comment Rec'd	Comment Summary	Comment Attachment (File Name)	Impact on 2018?	ERG Status
ID	C. Ramsdell	8/14/2007	Use 2002 HAP estimates (sum by SCC) for VOC emissions from refueling (stage I/II).	2002BAFB_Larsen_Stagel_I_Refueling.xls	Yes - will need to project to 2018.	Added 171 new records in 2002 area source
MT	L. Dygowski	8/3/2007	These are subject to BART: Columbia Falls, Ash Grove, Holcim, PPL Montana Corette, PPL Colstrip Units 1 and 2. Change BART flags from Y to N for: Montana Sulfur, CENEX, ASARCO, Smurfit Stone. BART determination for Exxon is still 'up in the air.' (No SCC/SIC changes noted.)	na	Yes - make same changes to BART flags in 2018	Made changes to BART flags for Montana Sulfur, CENEX, Smurfit Stone. (ASARCO already "N".) No change to Y flag for Exxon will be made (per Lee Gribovicz.) Others noted as subject to BART already have Y flags.
ND	T. Bachman	8/20/2007	Requests numerous BART flag, unit ID, SCC, Unit ID Description changes. Requests some SIC changes.	ND BART and SIC_SCC Review_from TomB.xls	Yes - will need to make same BART flag, SCC and unit changes in 2018.	Changes made for 2002, only.
NM	R. Trujillo	8/22/2007	No changes for NM. BART analysis for San Juan Generating Station will be completed in September		None	No Response Req'd.
NV	L. Campbell	Carryover from PRP18 update	Add 2002 CO emissions for 2 new facilities (NP Clark and Sunrise Stations) and 1 existing facility (SPPC Valmy) and project to 2018 (Facility IDs, AP49110398, AP49110399, and AP49110457.)	NV_2018-18b_point_summary_80% review by NDEP.xls (CO worksheet)	Yes - will need to project CO emissions to 2018 for NP Clark and Sunrise Stations.	NP Clark does not have this SCC; no changes made. NP Sunrise already has CO emissions (although not for this SCC). No changes were made to these facilities.(SPPC Valmy 2018 change is N/A.)
NV	B. Harpring, C. Kern	8/27-8/28/07	Requests numerous BART flag, unit ID, SCC, Unit ID Description changes.	NV BART and SIC-SCC Review 8-27-07.xls	Yes - will need to make same changes to be made in 2018.	Changes made to 2002 (comments left in the NV spreadsheet)
NV-Clark	M. Doyle	Carryover from PRP18 update; 8/24/07	Changed some facility IDs and Unit IDs. Added PM _{2.5} emissions for many EGUs, including cogeneration units. Questioned BART status (shown as N) for Chemical Lime.	2002_ClarkCo_4911md.xls, NV Clark Cogen.xls	Yes - will need to make same changes to IDs in 2018 db. Will need to project 2002 PM _{2.5} emissions to 2018 for some EGUs.	Changes made to 2002 as requested. Lee Gribovicz clarified that Chemical Lime modeled out of BART eligibility (flag should be N).
NV-Washoe	Y. Ling-Barnes	8/16/2007	Changes to SCCs for 2 facilities	NV_Washoe_BART and SIC_SCC Review_FromYann.xls	Yes - will need to make same SCC changes in 2018	Made SCC changes to 2 facilities in 2002
OR-Lane Co.	C. Fulton	8/14, 8/28, 8/29/2007	Sent new 2002 emissions data for Weyerhaeuser-Springfield in .txt format. Send Kingsford and SFPP in .xls format	Weyco_NIF_alldata.txt, OR_LaneCo_8-28 NIF kingsford.xls, OR_LaneCo_SFPP SS records.xls	Yes - will need to make same changes, project new 2002 facility emissions.	Deleted 2 NH3 records for Weyerhaeuser in 41039. Added 3 new facilities to 2002 only (267 records added)

Summary of Comments Received and Responses During the Plan02d Project (Continued)

State	Commenter	Date Comment Rec'd	Comment Summary	Comment Attachment (File Name)	Impact on 2018?	ERG Status
OR	M. Fisher	8/17/2007	Request changes to BART flags (highlighted in green) and SICs (noted in red font).	OR BART and SIC_SCC Review_fromMark071707.xls	Yes - will need to make same BART flag and SIC changes in 2018.	Made change for 2002, only
SD	D. Healey	Carryover from PRP18 update	ERG had forwarded state level area source fuel combustion emissions for No. 1 distillate, No. 2 fuel oil, and low sulfur diesel, provided by Dale during PRP18 project. We requested county level estimates, but none could be provided.		Yes - will need to project new emissions to 2018.	Completed for 2002 area sources. Used existing county:total ratios for SO ₂ , NO _x and PM _{2.5} . Assumed PM ₁₀ =PM _{2.5} and deleted remaining pollutants for sccs 2102004xx, 2103004xx, 2104004xx, and 2199004xx
SD	B. Gustfason	8/27/2007	Requested changes to SICs/SCC.	SD BART and SIC_SCC Review_from BrianG.xls	Yes - will need to make same changes in 2018.	Made changes to 2002, only
SRP-tribal	G. Little	9/6/2007	Delete all SCC 101xxxxxx records from the Salt river sand and rock facilities.	Email correspondence	Yes- Should delete the same from 2018.	Deleted 45 records with SCC 10100501 in 2002. only.
UT	D. McMurtrie	Carryover from PRP18 project	Confirmed changes to SO ₂ sources recommended in Pechan report for: Holcim - Devil's Slide, Kennecott Smelter & Refinery, Flying J Refinery, Tesoro - SLC Refinery, Chevron - Salt Lake Refinery, and Phillips Refinery. All facilities' emissions change for 2018, and all except Holcim and Kennecott change in 2002.	UT_Proposed Changes & Feedback Request.xls	No	A recheck of the Pechan data shows that the 2002 emissions were not changed by them. No change is needed.
UT	D. McMurtrie	8/20/2007	No changes to BART flags. Requests changes to some SCCs and SICs. Also requested clarification on 7 facilities; ERG sent spreadsheet to Deb on 8/22.			
UT	D. McMurtrie	8/27-8/28/07	Made additional changes for the 7 facilities.	UT BART and SIC_SCC Review_fromDM_082807.xls	Yes - will need to make same changes to 2018	Made changes for 2002 only.
UT	P. Fields	11/20/2007	Discovered that PRP18 for area o&g in UT did not contain ENVIRON's latest estimates. ERG should update the FRP18 using the latest spreadsheet from ENVIRON (11-20-07). This will make the emissions the same as used in the PRP18 modeling.	2018_OilGas_annual_tpd_(to ERG)_113007.xls	Yes, these numbers should be used	Will make changes to 2018 in the future.

Summary of Comments Received and Responses During the Plan02d Project (Continued)

State	Commenter	Date Comment Rec'd	Comment Summary	Comment Attachment (File Name)	Impact on 2018?	ERG Status
WA	A. Newman	Carryover from PRP18 project	Responded to inquiry about Graymont Western Lime/Calcium Carb Plant -- is this a tribal source? Yes it is, although modeled out of BART.		No	No change needed (remains a tribal source).
WA	A. Newman	8/17/2007	Provided several BART flag changes	WA BART Review07072007.xls	Yes - will need to make same BART flag changes in 2018. Also, will need to project new NO _x emissions that were added at non-EGU sources.	Made changes for 2002 only.
WA	S. Otterson	Carryover from PRP18 update	Woodstoves - Use the 2005 estimates since the 2002 inventory was in error.	WA_Updates_Follow-Up.xls (woodstove_fireplace worksheet)	Yes - projections must be re-projected with new baseline.	Made changes for 2002 only.
WA	S. Otterson	Carryover from PRP18 update	Lakeside Industries Centralia - "I don't have much information on this, but I have the two sources split out for 2005. The data was provided by the Southwest Clean Air Agency....actual emissions of these sources are very small."	WA_Updates_Follow-Up.xls (Lakeside_Centralia worksheet)	No	We did not make these changes, as followup would be needed to obtain complete emission records, and emissions are very insignificant (<10 tons total of all pollutants)
WA	S. Otterson	Carryover from PRP18 update; 8/8/07	Six industries (Mutual Materials, Puget Sound Refining Co., Tesoro Northwest Co., Conoco Phillips, BP Cherry Point Refinery, Longview Fiber, Weyerhaeuser Co.) targeted for replacing 2002 emissions with 2005. In 8/8/07 followup email, Sally said that the 2002 WRAP vs. 2002 NEI for all facilities except Mutual Materials compared closely; new 2002 emissions for Mutual materials was provided for 3 SCCs (and recorded in WA spreadsheet).	WA_Updates_Follow-Up.xls (Mutual_Materials worksheet)	Yes - reprojection is required for Mutual Materials.	We replaced 2002 emissions for Mutual Materials per spreadsheet. All other facilities remained the same.
WA	S. Otterson	8/6/2007	Three facilities where 2002 should be replaced with 2005 emissions: Goldendale Energy Center (53039-0066), Frederickson Power LP (53053-10645), Chehalis Power LP/Chehalis Generation Facility (53041)-0059)	Adds_Replace_NIF.mdb (from Sally in 2005)	Yes - reprojection is required for all 3 plants.	These facilities did not exist in the year 2002, hence no action required for the Plan02d inventory. Will use these 2005 emissions to reproject to 2018 in the next round of 2018 EI.

Summary of Comments Received and Responses During the Plan02d Project (Continued)

State	Commenter	Date Comment Rec'd	Comment Summary	Comment Attachment (File Name)	Impact on 2018?	ERG Status
WA	S. Otterson	8/16/2007	Provided SIC/SCC corrections	WA_SIC_SCC_Review_WA-Update.xls	Yes - same changes should be made in 2018	Replace SICs/SCCs as requested; some unit numbers changed, too.
WA	S. Otterson	9/10/2007	Provided new facility ID for Rexam Beverage and Can: 21468		Yes - same change should be made in 2018	Change current ID (16066) to 21468.
WY	B. Bohlmann	Carryover from PRP18 update	Per Pechan Report, Table III-5, made FCCU emission adjustments for 2002 and 2018 (i.e., growth factor adjustment for fuel combustion sources for 2018 SO ₂ emissions for Frontier Refining Inc. (Plant ID 5602100001)).	WRAP WY_Proposed Changes & Feedback Request.xls	No - already made	For 2018, we will change the 2018 total SO ₂ emissions for the facility to 1292 tons from 1964 tons. Per WRAP, no changes to 2002 should be made at this time.
WY	B. Bohlmann	Carryover from PRP18 update	Per Pechan Report, Table III-5, made FCCU adjustments (2002 and 2018); growth factor adjustment for fuel combustion sources for 2018 SO ₂ emissions for Sinclair Oil Corp-Casper Refinery (Plant ID 5602500005)	WRAP WY_Proposed Changes & Feedback Request.xls	No - already made	Will change the 2018 total SO ₂ emissions for the facility to 1165 tons from 1389 tons. Will obtain SCC level info from Pechan. Will not change 2002 emissions at this time per WRAP.
WY	B. Bohlmann	8/6/2007	Celotex Corporation: Change the company name to BPB America and the facility name to Cody Wallboard Plant		Yes - same change should be made in 2018	Change made in 2002, only.
WY	B. Bohlmann	Carryover from PRP18 project; 8/8/2007	Provided changes to Dyno Nobel 2002 and 2018 emissions.	WY DynoNobel_2002_2018.xls	Yes - make changes as provided (no need to re-project).	Change made in 2002, only.
WY	P. Fields	Carryover from PRP18 project; 8/2/2007	Note that SO ₂ emissions at Sinclair Oil Refinery should be 3255 tons (not 3455 tons). (Also, note the OCI has 1 SCC in 2018 that begins 306xxxxx (petroleum industry) that should be changed to 302xxxxx (chemical industry))		Yes - same change should be made in 2018	Reduced SO ₂ emissions based on existing EU emissions-to-total SO ₂ emissions ratio
WY	L. Gribovicz	Carryover from PRP18 update	Name of Howell Petroleum, Elk Basin Plant should be changed to Encore Energy, Elk Basin Plant. SCC 301032 should be changed to 31000208 in both 2002 and 2018.		Yes - same change should be made in 2018	Change made in 2002, only.