- Salt or particulates concentrations in the water.
- Drift rate.
- Mass size distribution of drift droplets.
- Plume rise influenced by tower diameter, height and mass flux.

• Factors related to atmospheric conditions.

- Humidity.
- Wind speed.
- Wind direction.
- Temperature.
- Pasquill's stability class.

The salt drift deposition pattern shown in Table 5.3-6 indicates that there is negligible salt deposition ~~with~~at a distance of 1.5 miles from the site. ~~t~~The highest amount ~~being~~of salt deposition was ~~approximately~~found to be ~~55.8~~137.3 kg/km^2/month occurring 100 meters from the site.~~and 37.49 kg/km^2/month occurring 200 meters, both being north of the towers. All other salt deposition amounts are below 10 kg/km^2/month.~~ The SCR is adjacent to the cooling towers and is likely to receive cooling tower drift that would add to TDS of the reservoir. However, TDS measured in SCR in 2007 exceeded 2600 mg/L at all sampling locations across all seasons, which is likely due to the reservoir acting as the UHS for two once-through units. Increases in SCR TDS measurements due to cooling tower drift are anticipated to be negligible. RCOL2_02.03.02-4 RCOL2_02.03.02-4 S01

The maximum predicted annual water deposition rate, from the cooling tower assessment is ~~78~~4.9 x 10$^{\cancel{3}4}$ kg/km^2/month at a downwind distance of 100 meters from the cooling towers. This deposition rate is the rainfall equivalent of ~~0.003~~0.002 ~~in/~~inches per month. This amount is trivial compared to the normal precipitation at CPNPP of 30 in annually. The National Weather Service (NWS) considers precipitation of less than 0.01 to be a trace amount. RCOL2_02.03.02-4 RCOL2_02.03.02-4 S01

Drift deposition results are indicative of the performance of the state-of-the-art drift eliminators, minimizing the size of the drift droplets. Small drift droplets tend to evaporate or remain suspended in air. Trivial drift deposition that does occur is most likely the result of meteorological conditions conducive to reduced plume rise; i.e., stronger wind speeds. The use of fresh water as makeup also contributes to the trivial deposition impacts as this use minimizes the total dissolved solids content of the circulating water.

5.3.3.1.4 Cloud Formation, Cloud Shadowing, and Additional Precipitation

In NUREG-1073 (Final Environmental Statement Related to the Operation of River Bend Station), the NRC indicates that even though plumes from natural draft cooling towers at several

5.3.3.2.1 Salt Drift

Although the cooling towers are equipped with drift eliminators to reduce the amount of liquid particle loss, some droplets containing dissolved particles are ejected from the cooling tower. Potential impacts of salt exposure due to cooling tower operation on native vegetation are similar to those for agricultural crops, including salt-induced leaf damage, growth, and seed yield reduction if salt deposition rates are high. NUREG-1555 Subsection 5.3.3.2 indicates that maintaining a deposition rate below 1 – 2 kg/ha/month is expected to prevent damage to vegetation. Subsection 5.3.3.1.3 indicates the highest deposition rate is ~~55.8~~137.3 kg/km^2/month, which is below the threshold that is anticipated to prevent damage. RCOL2_02.03.02-4 RCOL2_02.03.02-4 S01

Maximum MDCT salt deposition rates predicted would be approximately ~~0.558~~1.373 kg/ha/month, occurring 100 meters north~~ and 0.375 kg/ha/month, occurring 200 meters north~~ of the cooling towers. ~~All other salt deposition amounts are below 0.1 kg/ha/month.~~ NUREG-1555 Subsection 5.3.3.2 indicates that maintaining a deposition rate below 1 – 2 kg/ha/month is expected to prevent damage to vegetation. Impact to terrestrial ecosystems associated with salt deposition stemming from cooling tower operation is expected to be SMALL. RCOL2_02.03.02-4 RCOL2_02.03.02-4 S01

5.3.3.2.2 Increased Precipitation

Increased precipitation is discussed in Subsection 5.3.3.1.4. Impacts on terrestrial ecosystems are considered to be SMALL.

5.3.3.2.3 Fogging and Icing

Subsection 5.3.3.1.2 indicates surface fogging and icing at the CPNPP are expected. Ground icing and fogging events are predicted to occur primarily in the areas of wetlands or lake surface, thus impact on terrestrial ecology is considered to be SMALL and does not warrant mitigation.

5.3.3.2.4 Noise

The potential for noise effects from CPNPP Units 3 and 4 has been analyzed by projecting noise levels at the site and vicinity from various sources (Subsection 5.8.1.5). Resident wildlife species quickly adapt to constant background noise (Live Science 2005). Noise is expected to have a small impact on terrestrial ecology.

5.3.3.2.5 Bird collisions

Collisions between birds and the cooling towers are expected to be minimal. Most authors only report collisions on objects four to ten times taller than the proposed cooling towers for CPNPP (CEC 1995) (Kerlinger 2000). The low profile of the proposed towers is expected to prevent many collisions. Because much of this peninsula is expected to be cleared for construction of Units 3 and 4 and the cooling towers, there are no topographic or ecological features that would attract birds to this location or “funnel” them into the vicinity of exhaust stacks or other elevated features of the project. Night lighting is suspected as a contributing factor to many collisions. The combination of low profile and night time lighting at CPNPP is expected to keep the risk of bird collisins with the cooling towers SMALL.

TABLE 5.3-3
COOLING TOWER AND CIRCULATING WATER DATA

	Per Unit	
Tower type	Back~~-~~-to~~-~~-back mechanical draft	RCOL2_02.03.02-4 S01
Number of ~~banks~~towers	2	
Tower arrangement	parallel	
Tower height above plant grade	55.4 ft	
Tower dimensions	122 ft ~~X~~x 811ft	RCOL2_02.03.02-4 S01
~~Number of cells/tower~~	~~30~~	
~~Cell exit diameter~~	~~45.5 ft~~	
Heat dissipation rate ~~per tower~~	~~1461~~2922 MW	
Air mass flow rate ~~per tower~~	~~14,500~~29,000 kg/sec	
Circulating water flow~~/tower~~	1,317,720 gpm	
Drift rate ~~per tower~~	~~13.2~~6.6 gpm	RCOL2_02.03.02-4
~~Cooling water salt concentration~~	~~288 ppm~~	RCOL2_02.03.02-4 S01

TABLE 5.3-4
AVERAGE PLUME LENGTH IN MILES

	Winter	Spring	Summer	Fall	Annual
Plume from MDCT moving in the indicated direction					
S	~~3.96~~3.77	~~2.54~~2.27	~~1.63~~1.37	~~2.44~~2.2	~~2.95~~2.71
SSW	~~3.78~~3.47	~~2.16~~1.83	~~1.22~~1.04	~~1.88~~1.7	~~2.25~~1.99
SW	~~3.14~~3.86	~~1.27~~1.86	~~0.59~~0.87	~~1.23~~1.55	~~1.39~~1.86
WSW	~~3.09~~3.62	~~1.66~~2.23	~~0.55~~0.72	~~1.47~~1.72	~~1.47~~1.82
W	~~4.15~~3.82	~~2.42~~2.13	~~0.89~~0.73	~~2.50~~2.32	~~2.32~~2.09
WNW	~~4.17~~3.82	~~2.13~~1.93	~~1.03~~0.91	~~1.86~~1.63	~~2.11~~1.9
NW	~~4.09~~3.8	~~2.16~~1.94	~~1.19~~1.07	~~1.94~~1.76	~~2.14~~1.94
NNW	~~3.37~~3.09	~~1.63~~1.47	~~0.78~~0.66	~~1.67~~1.49	~~1.67~~1.5
N	~~2.85~~2.57	~~1.49~~1.3	~~0.68~~0.58	~~1.64~~1.4	~~1.55~~1.36
NNE	~~2.57~~2.3	~~1.67~~1.43	~~0.87~~0.65	~~2.05~~1.67	~~1.79~~1.5
NE	~~1.81~~2.53	~~1.51~~1.95	~~0.60~~0.93	~~1.99~~2.62	~~1.49~~2.03
ENE	~~2.52~~3.08	~~1.90~~2.41	~~0.87~~1.27	~~2.54~~3.08	~~2.11~~2.62
E	~~3.32~~3.04	~~2.08~~1.86	~~1.58~~1.28	~~2.88~~2.47	~~2.64~~2.34
ESE	~~3.66~~3.38	~~2.63~~2.37	~~2.13~~1.81	~~3.26~~2.88	~~3.18~~2.86
SE	~~3.11~~2.87	~~2.37~~2.11	~~1.62~~1.4	~~2.73~~2.45	~~2.75~~2.5
SSE	~~3.22~~3.05	~~2.14~~1.98	~~1.34~~1.16	~~2.44~~2.29	~~2.62~~2.46
All	~~3.29~~3.14	~~1.85~~1.73	~~0.91~~0.83	~~2.04~~1.9	~~2.02~~1.9

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TABLE 5.3-5 (Sheet 1 of 2)
ANNUAL HR/YR OF FOGGING OR ICING
DIRECTIONS ARE FROM THE TOWER

Fogging

(mi)	(m)	S	SSW	SW	WSW	W	WNW	NW	NNW	N	NNE	NE	ENE	E	ESE	SE	SSE
0.06	100	~~98~~22	~~57.2~~1.1	~~14.8~~6.5	~~4~~1.1	~~4.9~~0.4	~~6~~2.8	~~11~~24.3	~~47.8~~49.7	~~89.5~~6.5	~~60.3~~1.6	~~19.6~~9.8	~~5.1~~2.8	~~2.6~~0	~~5.4~~8.8	~~7.1~~82.6	~~45.2~~ 152.7
0.12	200	~~92.7~~ 90.8	~~73.9~~31.4	~~21.6~~7.4	~~5.3~~2.2	~~5.7~~2	~~6.8~~5.9	~~15~~31	~~68.2~~94.5	~~96.9~~76.7	~~77.9~~30.6	~~27.5~~10.2	~~7.3~~4.4	~~3.8~~1.4	~~5~~11.2	~~22.9~~ 137.5	~~106.3~~ 290.1
0.19	300	~~86.3~~61.2	~~35.4~~11	~~13.6~~5.9	~~0.5~~2.1	~~2.5~~1	~~6.3~~3.1	~~1.5~~24.1	~~24.4~~77.4	~~90.3~~53	~~35.1~~11.4	~~19~~8.9	~~4.2~~4.3	~~1.5~~0.5	~~5~~3.5	~~10.3~~ 129.4	~~56.1~~ 350.3
0.25	400	~~128.5~~ 45.1	~~44.1~~5.2	~~7.3~~4.4	~~0.4~~1	~~2.1~~1	~~12.4~~0.7	~~1.1~~12.4	~~19~~50.9	~~157.4~~ 26.6	~~42~~5.7	~~9.7~~6.3	~~3.6~~2.5	~~1~~0.4	~~8~~2.3	~~12.3~~ 100.6	~~60.1~~ 313.4
0.31	500	~~103.7~~ 90	~~28~~9.4	~~0.4~~4.1	~~0.3~~1	~~1~~1.9	~~9.1~~2.3	0	~~7.4~~15.4	~~119.4~~ 60.9	~~22.5~~8.2	~~0.3~~6.3	~~2.4~~2.5	~~0.5~~0.4	~~6.4~~4.8	~~11~~37.4	~~53.6~~ 157.9
0.37	600	~~83.3~~60.8	~~22.6~~4.1	~~0.3~~4.1	~~0.3~~0.5	~~1~~1.7	~~6.3~~0.7	~~1.8~~0	~~11.8~~7.6	~~87.3~~27.3	~~16~~3.3	~~0.3~~6.3	~~1.6~~1.7	~~0.5~~0.3	~~5~~2.5	~~16.9~~13.8	~~63.9~~ 63.5
0.43	700	~~77.3~~50.5	~~18.4~~2.0	~~0.3~~4	~~0.2~~0	~~1~~1.5	~~5.4~~0	0	~~4~~4.1	~~76.4~~19	~~13.8~~1	~~0.2~~6.3	~~1.5~~1	~~0.4~~0.3	~~4.6~~2	~~4.1~~2	~~23.3~~ 17.4
0.5	800	~~61.1~~42.3	~~7.2~~2.0	~~0.1~~4	0	~~1~~1.1	~~3~~0	0	~~1.3~~1	~~49.5~~19	~~7.2~~1	~~0~~6.3	~~0.9~~1	~~0.1~~0.3	~~3.5~~2	~~1.2~~0.2	~~6.3~~2.8
0.56	900	~~60.6~~33.7	~~7.2~~1.6	~~0.1~~4	0	~~1~~0.7	~~3~~0	0	~~1.2~~0	~~49.5~~16.3	~~7.2~~1	~~0~~6	~~0.5~~1	~~0.1~~0	~~3.5~~2	~~0.1~~0	~~1.2~~0
0.62	1000	~~48.8~~28.5	~~3.8~~1.5	~~0~~2	0	~~1~~0.5	~~1.5~~0	0	~~0.7~~0	~~29.4~~15.5	~~3.9~~1	~~0~~3	~~0.5~~1	0	~~2.7~~2	0	~~0.7~~0
0.68	1100	~~38~~27.9	~~1~~1.1	~~0~~2	0	~~1~~0.5	0	0	0	~~12~~12.8	~~1~~1	~~0~~3	~~0.5~~1	0	~~2~~2	0	0
0.75	1200	~~38~~20.5	1	~~0~~2	0	~~1~~0.5	0	0	0	~~12~~7.5	~~1~~0.5	~~0~~3	~~0.5~~1	0	~~2~~1.5	0	0
0.81	1300	~~38~~20.5	1	0	0	~~1~~0.5	0	0	0	~~12~~7.5	~~1~~0.5	0	~~0.5~~1	0	~~2~~1.5	0	0
0.87	1400	~~37.6~~20.5	1	0	0	~~1~~0.5	0	0	0	~~12~~7.5	~~1~~0.5	0	~~0.5~~1	0	~~2~~1.5	0	0
0.93	1500	~~29.9~~19.4	~~1~~0.6	0	0	~~0.6~~0.5	0	0	0	~~12~~6.4	~~1~~0.5	0	~~0.5~~1	0	~~2~~1.1	0	0
0.99	1600	~~22.8~~19	~~0.9~~0.5	0	0	~~0.4~~0.5	0	0	0	~~10.5~~6.0	~~0.9~~0.5	0	~~0.5~~0.6	0	~~1.7~~1	0	0

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TABLE 5.3-5 (Sheet 2 of 2)
ANNUAL HR/YR OF FOGGING OR ICING
DIRECTIONS ARE FROM THE TOWER

Icing

(mi)	(m)	S	SSW	SW	WSW	W	WNW	NW	NNW	N	NNE	NE	ENE	E	ESE	SE	SSE
0.06	100	~~64.3~~9	~~41.9~~1.1	~~14.2~~6.5	~~3.4~~1.1	~~3.6~~0	~~5.4~~2.8	~~11~~24.2	~~45.3~~45.2	~~80.6~~6.4	~~57.7~~1.6	~~19.6~~9.8	~~5.1~~2.8	~~2.3~~0	~~4~~7.5	~~6.8~~57.2	~~32~~77.2
0.12	200	~~66.5~~52.7	~~54.1~~21.6	~~19.7~~7	~~4.6~~1.9	~~4.7~~1.2	~~6~~5.6	~~14.9~~30.6	~~62.2~~84.5	~~86.8~~66.9	~~73.4~~ 28.5	~~27.5~~10.2	~~7.3~~4.4	~~3.3~~1.2	~~4~~5.2	~~10~~80.4	~~49.8~~ 133.2
0.19	300	~~60.8~~36	~~25.7~~7.5	~~13.1~~5.7	~~0.2~~2	~~1.5~~0	~~6~~3	~~1.5~~24.1	~~20.8~~ 63.4	~~80.3~~43	~~32.6~~10	~~19~~8.9	~~4.2~~4.3	~~1.3~~0.4	~~4~~2.5	~~1.5~~67.2	~~19~~125
0.25	400	~~103~~19.7	~~33.5~~2.2	~~6.8~~4	~~0~~1	~~1.1~~0	~~12~~0.7	~~1.1~~12.4	~~15~~38.2	~~147.4~~ 16.6	~~39.5~~3.8	~~9.7~~6.3	~~3.6~~2.5	~~0.8~~0.3	~~7~~1.3	~~0.9~~36.4	~~13~~84.8
0.31	500	~~78.3~~42.9	~~19.9~~5.2	~~0~~4	~~0~~1	0	~~8.8~~2.3	0	~~3.8~~7.1	~~109.4~~ 42.1	~~20.9~~7.9	~~0.3~~6.3	~~2.4~~2.5	0.3	~~5.4~~2.9	~~0.8~~2.4	~~11.1~~27.4
0.37	600	~~58~~20.5	~~14.8~~1.8	~~0~~4	~~0~~0.5	0	~~6~~0.7	~~1.8~~0	~~8.3~~2.6	~~77.3~~16.9	~~15.3~~3.1	~~0.3~~6.3	~~1.6~~1.7	0.3	~~4~~1.3	~~5.8~~0.9	~~17.2~~10
0.43	700	~~52.3~~15.5	~~12.2~~0	~~0~~4	0	0	~~5.2~~0	0	~~1.7~~1.5	~~68.2~~9	~~13.1~~1	~~0.2~~6.3	~~1.5~~1	~~0.2~~0.3	~~3.6~~1	~~0.2~~0.5	~~3.2~~5.5
0.5	800	~~36.5~~15	~~5.5~~0	~~0~~4	0	0	~~3~~0	0	0	~~43~~9	~~7~~1	~~0~~6.3	~~0.9~~1	~~0~~0.3	~~2.5~~1	0	~~0.2~~0.4
0.56	900	~~36.5~~14.5	~~5.5~~0	~~0~~4	0	0	~~3~~0	0	0	~~43~~9	~~7~~1	~~0~~6	~~0.5~~1	0	~~2.5~~1	0	0
0.62	1000	~~25.5~~14.5	~~2.7~~0	~~0~~2	0	0	~~1.5~~0	0	0	~~25.6~~9	~~3.9~~1	~~0~~3	~~0.5~~1	0	~~1.7~~1	0	0
0.68	1100	~~15~~14.5	0	~~0~~2	0	0	0	0	0	9	1	~~0~~3	~~0.5~~1	0	1	0	0
0.75	1200	~~15~~7.5	0	~~0~~2	0	0	0	0	0	~~9~~4.5	~~1~~0.5	~~0~~3	~~0.5~~1	0	~~1~~0.5	0	0
0.81	1300	~~15~~7.5	0	0	0	0	0	0	0	~~9~~4.5	~~1~~0.5	0	~~0.5~~1	0	~~1~~0.5	0	0
0.87	1400	~~14.6~~7.5	0	0	0	0	0	0	0	~~9~~4.5	~~1~~0.5	0	~~0.5~~1	0	~~1~~0.5	0	0
0.93	1500	~~14.5~~7.5	0	0	0	0	0	0	0	~~9~~4.5	~~1~~0.5	0	~~0.5~~1	0	~~1~~0.5	0	0
0.99	1600	~~12.7~~7.5	0	0	0	0	0	0	0	~~7.8~~4.5	~~0.9~~0.5	0	~~0.5~~0.6	0	~~0.9~~0.5	0	0

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TABLE 5.3-6 (Sheet 1 of 4)

~~ANNUAL SODIUM~~ SALT DEPOSITION IN KG/~~(~~KM^2/MONTH~~)~~

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(mi)	(m)	S	SSW	SW	WSW	W	WNW	NW	NNW	N	NNE	NE	ENE	E	ESE	SE	SSE
0.06	100	~~8.23~~ 24.41	~~6.19~~ 23.80	~~4.43~~ 49.39	~~4.69~~ 41.11	~~4.12~~ 26.96	~~5.71~~ 30.99	~~1.37~~ 66.47	~~1.92~~ 86.01	~~55.80~~ 137.3	~~9.98~~ 30.79	~~4.17~~ 64.35	~~2.84~~ 42.38	~~2.32~~ 10.97	~~2.90~~ 10.24	~~0.51~~ 19.96	~~0.77~~ 31.85
0.12	200	~~5.62~~ 20.60	~~4.23~~ 18.04	~~2.05~~ 28.58	~~2.10~~ 24.38	~~3.03~~ 17.19	~~4.31~~ 20.56	~~1.31~~ 42.02	~~1.85~~ 61.28	~~37.49~~ 127.2	~~6.99~~ 25.41	~~2.11~~ 34.31	~~1.47~~ 23.97	~~1.68~~ 7.70	~~1.99~~ 8.26	~~0.45~~ 14.18	~~0.66~~ 19.06
0.19	300	~~0.67~~ 7.20	~~0.47~~ 5.41	~~0.50~~ 16.70	~~0.41~~ 12.60	~~0.73~~ 3.65	~~0.92~~ 4.94	~~1.28~~ 33.28	~~1.83~~ 52.17	~~2.38~~ 49.19	~~0.72~~ 8.60	~~0.72~~ 22.56	~~0.49~~ 15.76	~~0.28~~ 2.07	~~0.30~~ 2.54	~~0.38~~ 11.45	~~0.59~~ 15.01
0.25	400	~~0.24~~ 6.25	~~0.17~~ 4.69	~~0.48~~ 7.09	~~0.39~~ 5.42	~~0.44~~ 3.26	~~0.56~~ 4.43	~~1.28~~ 25.57	~~1.83~~ 40.43	~~0.85~~ 42.50	~~0.31~~ 7.51	~~0.70~~ 9.34	~~0.46~~ 6.36	~~0.16~~ 1.84	~~0.13~~ 2.21	~~0.35~~ 9.02	~~0.57~~ 11.50
0.31	500	~~0.21~~ 6.28	~~0.14~~ 4.69	~~0.48~~ 0.23	~~0.38~~ 0.17	~~0.41~~ 3.46	~~0.54~~ 4.74	~~1.21~~ 10.67	~~1.70~~ 13.03	~~0.79~~ 42.80	~~0.29~~ 7.61	~~0.67~~ 0.44	~~0.44~~ 0.37	~~0.12~~ 1.79	~~0.12~~ 2.22	~~0.30~~ 4.05	~~0.48~~ 4.65
0.37	600	~~0.20~~ 6.17	~~0.13~~ 4.59	~~0.32~~ 0.15	~~0.26~~ 0.13	~~0.32~~ 3.35	~~0.41~~ 4.57	~~0.98~~ 8.79	~~1.43~~ 10.91	~~0.67~~ 42.08	~~0.25~~ 7.42	~~0.45~~ 0.26	~~0.29~~ 0.22	~~0.10~~ 1.67	~~0.11~~ 2.18	~~0.24~~ 3.19	~~0.34~~ 3.90
0.43	700	~~0.18~~ 5.55	~~0.13~~ 4.12	~~0.19~~ 0.10	~~0.15~~ 0.10	~~0.17~~ 2.97	~~0.19~~ 3.85	~~0.68~~ 5.98	~~1.16~~ 8.05	~~0.47~~ 37.63	~~0.17~~ 6.42	~~0.25~~ 0.17	~~0.17~~ 0.15	~~0.09~~ 1.41	~~0.10~~ 1.98	~~0.20~~ 2.04	~~0.28~~ 2.80
0.50	800	~~0.18~~ 3.77	~~0.12~~ 2.78	~~0.02~~ 0.08	~~0.01~~ 0.07	~~0.17~~ 1.84	~~0.18~~ 2.33	~~0.60~~ 4.55	~~1.10~~ 6.52	~~0.47~~ 24.97	~~0.16~~ 4.25	~~0.02~~ 0.14	~~0.02~~ 0.13	~~0.09~~ 0.97	~~0.10~~ 1.36	~~0.20~~ 1.42	~~0.27~~ 2.02
0.56	900	~~0.15~~ 0.33	~~0.10~~ 0.19	~~0.02~~ 0.07	~~0.01~~ 0.06	~~0.14~~ 0.25	~~0.16~~ 0.28	~~0.57~~ 4.54	~~1.09~~ 6.51	~~0.38~~ 0.76	~~0.14~~ 0.27	~~0.02~~ 0.14	~~0.02~~ 0.13	~~0.08~~ 0.14	~~0.08~~ 0.17	~~0.19~~ 1.42	~~0.27~~ 2.02
0.62	1000	~~0.14~~ 0.31	~~0.09~~ 0.18	~~0.02~~ 0.07	~~0.01~~ 0.06	~~0.14~~ 0.24	~~0.15~~ 0.27	~~0.50~~ 4.58	~~0.93~~ 6.57	~~0.35~~ 0.74	~~0.13~~ 0.26	~~0.02~~ 0.14	~~0.02~~ 0.13	~~0.07~~ 0.14	~~0.07~~ 0.17	~~0.17~~ 1.43	~~0.24~~ 2.03
0.68	1100	~~0.14~~ 0.31	~~0.09~~ 0.18	~~0.02~~ 0.07	~~0.01~~ 0.06	~~0.14~~ 0.24	~~0.15~~ 0.27	~~0.12~~ 5.33	~~0.15~~ 7.62	~~0.35~~ 0.73	~~0.13~~ 0.26	~~0.02~~ 0.14	~~0.02~~ 0.13	~~0.07~~ 0.14	~~0.07~~ 0.17	~~0.05~~ 1.66	~~0.05~~ 2.25
0.75	1200	~~0.14~~ 0.31	~~0.09~~ 0.18	~~0.02~~ 0.07	~~0.01~~ 0.06	~~0.13~~ 0.24	~~0.15~~ 0.27	~~0.12~~ 5.85	~~0.15~~ 8.44	~~0.35~~ 0.73	~~0.13~~ 0.26	~~0.02~~ 0.14	~~0.02~~ 0.13	~~0.07~~ 0.14	~~0.07~~ 0.17	~~0.05~~ 1.87	~~0.05~~ 2.48
0.81	1300	~~0.13~~ 0.31	~~0.09~~ 0.18	~~0.02~~ 0.07	~~0.01~~ 0.06	~~0.12~~ 0.24	~~0.14~~ 0.27	~~0.12~~ 6.04	~~0.15~~ 8.65	~~0.33~~ 0.73	~~0.12~~ 0.26	~~0.02~~ 0.14	~~0.02~~ 0.13	~~0.07~~ 0.14	~~0.07~~ 0.17	~~0.05~~ 1.92	~~0.05~~ 2.53

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RCOL2_02.03.02-4 S01

TABLE 5.3-6 (Sheet 2 of 4)

~~ANNUAL SODIUM~~ SALT DEPOSITION IN KG/~~(~~KM^2/MONTH~~)~~

RCOL2_02.03.02-4 S01

(mi)	(m)	S	SSW	SW	WSW	W	WNW	NW	NNW	N	NNE	NE	ENE	E	ESE	SE	SSE
0.87	1400	~~0.12~~ 0.31	~~0.08~~ 0.18	~~0.02~~ 0.07	~~0.01~~ 0.06	~~0.11~~ 0.24	~~0.12~~ 0.27	~~0.12~~ 6.04	~~0.15~~ 8.65	~~0.31~~ 0.73	~~0.11~~ 0.26	~~0.02~~ 0.14	~~0.02~~ 0.13	~~0.06~~ 0.14	~~0.07~~ 0.17	~~0.05~~ 1.92	~~0.05~~ 2.53
0.93	1500	~~0.12~~ 0.31	~~0.08~~ 0.18	~~0.02~~ 0.07	~~0.01~~ 0.06	~~0.11~~ 0.24	~~0.12~~ 0.27	~~0.12~~ 5.94	~~0.15~~ 8.58	~~0.31~~ 0.73	~~0.11~~ 0.26	~~0.02~~ 0.14	~~0.02~~ 0.13	~~0.06~~ 0.14	~~0.07~~ 0.17	~~0.05~~ 1.90	~~0.05~~ 2.45
0.99	1600	~~0.12~~ 0.31	~~0.08~~ 0.18	~~0.02~~ 0.07	~~0.01~~ 0.06	~~0.11~~ 0.24	~~0.12~~ 0.27	~~0.12~~ 5.75	~~0.15~~ 8.43	~~0.29~~ 0.73	~~0.11~~ 0.26	~~0.02~~ 0.14	~~0.02~~ 0.13	~~0.06~~ 0.14	~~0.06~~ 0.17	~~0.05~~ 1.86	~~0.05~~ 2.27
1.06	1700	~~0.08~~ 0.31	~~0.05~~ 0.18	~~0.02~~ 0.06	~~0.01~~ 0.05	~~0.07~~ 0.24	~~0.08~~ 0.27	~~0.12~~ 5.75	~~0.15~~ 8.43	~~0.19~~ 0.73	~~0.07~~ 0.26	~~0.02~~ 0.12	~~0.02~~ 0.12	~~0.04~~ 0.14	~~0.04~~ 0.17	~~0.05~~ 1.86	~~0.05~~ 2.27
1.12	1800	~~0.05~~ 0.31	~~0.02~~ 0.18	~~0.02~~ 0.05	~~0.01~~ 0.05	~~0.02~~ 0.24	~~0.03~~ 0.27	~~0.12~~ 5.75	~~0.15~~ 8.43	~~0.10~~ 0.73	~~0.03~~ 0.26	~~0.02~~ 0.10	~~0.02~~ 0.10	~~0.02~~ 0.14	~~0.02~~ 0.17	~~0.05~~ 1.86	~~0.05~~ 2.27
1.18	1900	~~0.04~~ 0.31	~~0.02~~ 0.18	~~0.02~~ 0.05	~~0.01~~ 0.04	~~0.02~~ 0.24	~~0.02~~ 0.27	~~0.12~~ 5.75	~~0.15~~ 8.43	~~0.09~~ 0.73	~~0.03~~ 0.26	~~0.02~~ 0.09	~~0.02~~ 0.09	~~0.01~~ 0.14	~~0.02~~ 0.17	~~0.05~~ 1.86	~~0.05~~ 2.27
1.24	2000	~~0.03~~ 0.31	~~0.02~~ 0.18	~~0.02~~ 0.05	~~0.01~~ 0.04	~~0.02~~ 0.24	~~0.02~~ 0.27	~~0.12~~ 5.56	~~0.15~~ 8.18	~~0.07~~ 0.73	~~0.02~~ 0.26	~~0.02~~ 0.09	~~0.02~~ 0.09	~~0.01~~ 0.14	~~0.02~~ 0.17	~~0.05~~ 1.78	~~0.05~~ 2.21
1.30	2100	~~0.03~~ 0.30	~~0.02~~ 0.17	~~0.01~~ 0.04	~~0.01~~ 0.04	~~0.02~~ 0.23	~~0.02~~ 0.25	~~0.09~~ 5.28	~~0.12~~ 7.83	~~0.07~~ 0.71	~~0.02~~ 0.25	~~0.02~~ 0.08	~~0.02~~ 0.08	~~0.01~~ 0.14	~~0.02~~ 0.16	~~0.04~~ 1.68	~~0.04~~ 2.13
1.37	2200	~~0.03~~ 0.27	~~0.02~~ 0.15	~~0.01~~ 0.04	~~0.01~~ 0.03	~~0.02~~ 0.20	~~0.02~~ 0.22	~~0.09~~ 5.10	~~0.11~~ 7.58	~~0.07~~ 0.64	~~0.02~~ 0.23	~~0.02~~ 0.06	~~0.02~~ 0.07	~~0.01~~ 0.13	~~0.02~~ 0.15	~~0.04~~ 1.59	~~0.04~~ 2.05
1.43	2300	~~0.02~~ 0.19	~~0.01~~ 0.10	~~0.01~~ 0.03	~~0.01~~ 0.02	~~0.01~~ 0.12	~~0.01~~ 0.13	~~0.08~~ 4.49	~~0.10~~ 6.62	~~0.06~~ 0.41	~~0.01~~ 0.14	~~0.02~~ 0.05	~~0.02~~ 0.05	~~0.01~~ 0.09	~~0.01~~ 0.11	~~0.04~~ 1.35	~~0.04~~ 1.79
1.49	2400	~~0.02~~ 0.12	~~0.01~~ 0.05	~~0.01~~ 0.02	~~0.01~~ 0.02	~~0.01~~ 0.07	~~0.01~~ 0.07	~~0.06~~ 2.29	~~0.08~~ 2.91	~~0.05~~ 0.22	~~0.01~~ 0.08	~~0.02~~ 0.04	~~0.02~~ 0.04	~~0.01~~ 0.05	~~0.01~~ 0.07	~~0.03~~ 0.93	~~0.03~~ 0.78
1.55	2500	~~0.02~~ 0.10	~~0.01~~ 0.05	~~0.01~~ 0.02	~~0.01~~ 0.02	~~0.01~~ 0.05	~~0.01~~ 0.06	~~0.05~~ 2.28	~~0.06~~ 2.89	~~0.05~~ 0.18	~~0.01~~ 0.06	~~0.02~~ 0.03	~~0.02~~ 0.03	~~0.01~~ 0.04	~~0.01~~ 0.06	~~0.02~~ 0.93	~~0.02~~ 0.78
1.62	2600	~~0.02~~ 0.08	~~0.01~~ 0.04	~~0.01~~ 0.02	~~0.01~~ 0.02	~~0.01~~ 0.05	~~0.01~~ 0.05	~~0.03~~ 2.28	~~0.04~~ 2.89	~~0.05~~ 0.15	~~0.01~~ 0.05	~~0.02~~ 0.03	~~0.02~~ 0.03	~~0.01~~ 0.03	~~0.01~~ 0.04	~~0.01~~ 0.93	~~0.02~~ 0.78

RCOL2_02.03.02-4

RCOL2_02.03.02-4 S01

TABLE 5.3-6 (Sheet 3 of 4)

~~ANNUAL SODIUM~~ SALT DEPOSITION IN KG/~~(~~KM^2/MONTH~~)~~

RCOL2_02.03.02-4 S01

(mi)	(m)	S	SSW	SW	WSW	W	WNW	NW	NNW	N	NNE	NE	ENE	E	ESE	SE	SSE
1.68	2700	~~0.02~~ 0.08	~~0.01~~ 0.04	~~0.01~~ 0.02	~~0.01~~ 0.02	~~0.01~~ 0.05	~~0.01~~ 0.05	~~0.03~~ 2.28	~~0.03~~ 2.89	~~0.05~~ 0.15	~~0.01~~ 0.05	~~0.02~~ 0.03	~~0.02~~ 0.03	~~0.01~~ 0.03	~~0.01~~ 0.04	~~0.01~~ 0.93	~~0.01~~ 0.78
1.74	2800	~~0.01~~ 0.06	~~0.01~~ 0.03	~~0.01~~ 0.02	~~0.01~~ 0.02	~~0.01~~ 0.04	~~0.01~~ 0.04	~~0.03~~ 2.28	~~0.03~~ 2.89	~~0.04~~ 0.11	~~0.01~~ 0.04	~~0.01~~ 0.03	~~0.01~~ 0.03	~~0~~0.02	~~0.01~~ 0.03	~~0.01~~ 0.93	~~0.01~~ 0.78
1.80	2900	~~0.01~~ 0.05	~~0.01~~ 0.02	~~0.01~~ 0.02	~~0.01~~ 0.02	~~0.01~~ 0.03	~~0.01~~ 0.03	~~0.03~~ 2.28	~~0.03~~ 2.89	~~0.04~~ 0.09	~~0.01~~ 0.03	~~0.01~~ 0.03	~~0.01~~ 0.03	~~0~~0.02	~~0.01~~ 0.03	~~0.01~~ 0.93	~~0.01~~ 0.78
1.86	3000	~~0.01~~ 0.05	~~0.01~~ 0.02	~~0.01~~ 0.02	~~0.01~~ 0.02	~~0.01~~ 0.03	~~0.01~~ 0.03	~~0.03~~ 2.13	~~0.03~~ 2.71	~~0.04~~ 0.09	~~0.01~~ 0.03	~~0.01~~ 0.03	~~0.01~~ 0.03	~~0~~0.02	~~0.01~~ 0.03	~~0.01~~ 0.87	~~0.01~~ 0.73
1.93	3100	~~0.01~~ 0.05	~~0.01~~ 0.02	~~0.01~~ 0.02	~~0.01~~ 0.01	~~0.01~~ 0.03	~~0.01~~ 0.03	~~0.02~~ 1.80	~~0.03~~ 2.28	~~0.04~~ 0.09	~~0.01~~ 0.03	~~0.01~~ 0.03	~~0.01~~ 0.03	~~0~~0.02	~~0.01~~ 0.03	~~0.01~~ 0.75	~~0.01~~ 0.63
1.99	3200	~~0.01~~ 0.05	~~0.01~~ 0.02	~~0.01~~ 0.01	~~0~~0.01	~~0.01~~ 0.03	~~0.01~~ 0.03	~~0.02~~ 1.88	~~0.02~~ 2.31	~~0.04~~ 0.09	~~0.01~~ 0.03	~~0.01~~ 0.03	~~0.01~~ 0.02	~~0~~0.02	~~0.01~~ 0.03	~~0.01~~ 0.77	~~0.01~~ 0.66
2.05	3300	~~0.01~~ 0.04	~~0.01~~ 0.02	~~0~~0.01	~~0~~0.01	~~0.01~~ 0.03	~~0.01~~ 0.03	~~0.02~~ 1.93	~~0.02~~ 2.34	~~0.04~~ 0.08	~~0.01~~ 0.03	~~0.01~~ 0.03	~~0.01~~ 0.02	~~0~~0.02	~~0.01~~ 0.02	~~0.01~~ 0.79	~~0.01~~ 0.67
2.11	3400	0.04	0.02	0.01	0.01	0.02	0.03	1.93	2.34	0.07	0.02	0.03	0.02	0.01	0.02	0.79	0.67
2.17	3500	~~0.01~~ 0.04	~~0.01~~ 0.02	~~0~~0.01	~~0~~0.01	~~0.01~~ 0.02	~~0.01~~ 0.03	~~0.02~~ 1.93	~~0.02~~ 2.34	~~0.04~~ 0.07	~~0.01~~ 0.02	~~0.01~~ 0.03	~~0.01~~ 0.02	~~0~~0.01	~~0.01~~ 0.02	~~0.01~~ 0.79	~~0.01~~ 0.67
2.24	3600	~~0.01~~ 0.04	~~0.01~~ 0.02	~~0~~0.01	~~0~~0.01	~~0.01~~ 0.02	~~0.01~~ 0.03	~~0.02~~ 1.54	~~0.02~~ 1.76	~~0.03~~ 0.07	~~0.01~~ 0.02	~~0.01~~ 0.03	~~0.01~~ 0.02	~~0~~0.01	~~0~~0.02	~~0.01~~ 0.58	~~0.01~~ 0.51
2.3	3700	0.19	0.10	0.03	0.02	0.12	0.13	4.49	6.62	0.41	0.14	0.05	0.05	0.09	0.11	1.35	1.79
2.36	3800	~~0.01~~ 0.12	~~0.01~~ 0.05	~~0~~0.02	~~0~~0.02	~~0.01~~ 0.07	~~0.01~~ 0.07	~~0.02~~ 2.29	~~0.02~~ 2.91	~~0.03~~ 0.22	~~0.01~~ 0.08	~~0.01~~ 0.04	~~0.01~~ 0.04	~~0~~0.05	~~0~~0.07	~~0.01~~ 0.93	~~0.01~~ 0.78
2.42	3900	0.10	0.05	0.02	0.02	0.05	0.06	2.28	2.89	0.18	0.06	0.03	0.03	0.04	0.06	0.93	0.78
2.49	4000	~~0.01~~ 0.08	~~0.01~~ 0.04	~~0~~0.02	~~0~~0.02	~~0.01~~ 0.05	~~0.01~~ 0.05	~~0.01~~ 2.28	~~0.02~~ 2.89	~~0.03~~ 0.15	~~0.01~~ 0.05	~~0.01~~ 0.03	~~0.01~~ 0.03	~~0~~0.03	~~0~~0.04	~~0.01~~ 0.93	~~0.01~~ 0.78
2.55	4100	~~0.01~~ 0.08	~~0.01~~ 0.04	~~0~~0.02	~~0~~0.02	~~0.01~~ 0.05	~~0.01~~ 0.05	~~0.01~~ 2.28	~~0.02~~ 2.89	~~0.03~~ 0.15	~~0.01~~ 0.05	~~0.01~~ 0.03	~~0.01~~ 0.03	~~0~~0.03	~~0~~0.04	~~0.01~~ 0.93	~~0.01~~ 0.78

RCOL2_02.03.02-4

RCOL2_02.03.02-4 S01

TABLE 5.3-6 (Sheet 4 of 4)

~~ANNUAL SODIUM~~ SALT DEPOSITION IN KG/~~(~~KM^2/MONTH~~)~~ RCOL2_02.03.02-4 S01

(mi)	(m)	S	SSW	SW	WSW	W	WNW	NW	NNW	N	NNE	NE	ENE	E	ESE	SE	SSE
		~~0.01~~	~~0.01~~			~~0.01~~	~~0.01~~	~~0.01~~	~~0.02~~	~~0.03~~	~~0.01~~	~~0.01~~	~~0.01~~			~~0.01~~	~~0.01~~
2.61	4200	0.06	0.03	~~0~~0.02	~~0~~0.02	0.04	0.04	2.28	2.89	0.11	0.04	0.03	0.03	~~0~~0.02	~~0~~0.03	0.93	0.78

RCOL2_02.03.02-4 RCOL2_02.03.02-4 S01

NOTE:

Directions are directions that the plume is headed. ~~Values can be converted to lbm/100/ac/month by multiplying by 0.893.~~