

**Thompson, Pamela J.**

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**North Dakota  
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## Filing Accepted

Envelope Number: 5273221  
Case Number: 08-2023-CV-01338  
Case Style: Casey Voigt, et al. vs. North Dakota  
Public Service Commission, et al.

The filing below was reviewed and has been accepted by the clerk's office. You may access the file copy of the document filed by clicking on the below link.

Filing Details	
<b>Court</b>	Burleigh County
<b>Case Number</b>	08-2023-CV-01338
<b>Case Style</b>	Casey Voigt, et al. vs. North Dakota Public Service Commission, et al.
<b>Date/Time Submitted</b>	7/18/2023 2:23 PM CST
<b>Date/Time Accepted</b>	7/19/2023 10:28 AM CST
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<b>Filing Description</b>	CR Exhibit 47 - Informal Conference Exhibit 2022 CC SHP 3-24-22 (38537)
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<b>Filed By</b>	Pamela Thompson
<b>Filing Attorney</b>	John Schuh

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CR Exhibit 47  
Case No. 08-2023-CV-01338

# COYOTE CREEK MINING COMPANY, L.L.C.

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Zap, ND 58580  
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*A SUBSIDIARY OF THE NORTH AMERICAN COAL CORPORATION*

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March 24, 2022

Ms. Zanna Brinkman  
Director Reclamation Division  
Public Service Commission  
600 East Boulevard Avenue  
Department 408  
Bismarck, ND 58505-0480

Dear Ms. Brinkman:

Enclosed is the 2022 Soils Handling Plan for Coyote Creek Mine.

Coyote Creek Mine has a mixing agreement with all surface owners within the main body of the permit area. There is no mixing agreement with the surface owners within the Revision 1 haulroad addition, so calculations for this area are shown separately. Soils from Section 30 were handled separately from the main body of the permit area so calculations from this area are shown separately.

Consistent with what is shown in Permit NACC-1302, salvaging deep lift and other suitable strata is necessary to meet required respread thicknesses. With the addition of deep lift subsoil and other suitable strata, it is projected that there will be an excess of subsoil of 4.3%. CCM requests the ability to waive approximately 50,000 cubic yards of subsoil to maintain an excess of 3.4%. Coyote Creek Mine currently has 407,834 CY excess subsoil and anticipates that number to climb as we look to the next few years. Due to the current and projected excess, and in accordance with NDAC 69-05.2-15-02(2)(a), Coyote Creek requests to continue to waive both the NDPSC approval of subsoil removal operations and salvage of SPGM monuments.

Thank you for your consideration. Should you have any questions, feel free to contact me.

Sincerely,

COYOTE CREEK MINING COMPANY, L.L.C.

Jason Sailer P.E.  
Mining Engineer

JRS  
Enc.

**2022 COYOTE CREEK MINE SOILS HANDLING PLAN**  
**Shop-Office Disturbance and Dedicated Piles in E2SE4 Section 30**

**SPGM Stockpile Inventory (02/01/22)**

TS		SS	
Pile Number	Volume (CY)	Pile Number	Volume (CY)
1 <sup>1</sup>	50,660	2	13,811
3	2,749	4	15,151
Veneer <sup>2</sup>	847		
<b>Total</b>	<b>54,256</b>		<b>28,962</b>

**Acres Disturbed (02/01/22)**

CCMC	TS Crop	TS Native	SS Crop	SS Native
	2.37	19.88	4.53	19.42
	2.34			
	6.51			
<b>Subtotal</b>	<b>11.22</b>	<b>19.88</b>	<b>4.53</b>	<b>19.42</b>

Voigt				
		1.30		1.09
<b>Subtotal</b>	<b>0.00</b>	<b>1.30</b>	<b>0.00</b>	<b>1.09</b>

<b>Total</b>	<b>11.22</b>	<b>21.18</b>	<b>4.53</b>	<b>20.51</b>
<b>Total by Material</b>		<b>32.40</b>		<b>25.04</b>

**Respread Thickness Calculations (02/01/22)**

**Topsoil**

	Pile No.	CY Salvaged	Crop (ac)	Native (ac)	Respread Thickness	
					Crop (in)	Native (in)
CCMC	1, Veneer	51,507	11.2	19.9	12.9	12.0
Voigt	3	1,529	0.0	1.3	NA	8.7
<b>Subtotals</b>		<b>53,036</b>	<b>11.2</b>	<b>21.2</b>		

Thickness calculations are based on pile volumes available to each landowner, since TS was piled separately by owner.

**Subsoil**

	CY Salvaged	Crop (ac)	Native (ac)	Respread Thickness	
				Crop (in)	Native (in)
CCMC	28,628	4.53	19.42	8.5	8.5
Voigt	334	0.00	1.09	NA	2.3
<b>Subtotals</b>	<b>28,962</b>	<b>4.53</b>	<b>20.51</b>		

Voigt subsoil thickness of 2.3" determined by soil survey; CCMC thickness determined by uniform respread of the remaining subsoil on SS-2 and SS-4 after Voigt lands at the shop-office facility are respread.

**Summary**

	Crop Respread Thickness			Native Respread Thickness		
	TS	SS	Total	TS	SS	Total
CCMC	12.9	8.5	<b>21.4</b>	12.0	8.5	<b>20.5</b>
Voigt	NA	NA	<b>NA</b>	8.7	2.3	<b>11.0</b>

Voigt subsoil inventory will be supplemented by future soil salvage in other parts of the mine. CCMC subsoil inventory will be supplemented by future soil salvage in other parts of the mine if other landowner needs are met. Alternatively, lands will be sampled during reclamation to assess overburden quality for use as other suitable strata as required by NDAC 69-05.2-08-11.

#### Notes

1. Voigt requested that Sec 30 CCMC topsoil not be mixed with his because of concerns about Canada thistle in the seedbank. Although not required, CCMC attempted to follow this request. Therefore, TS-1 was salvaged from and will only be respread on CCMC lands.
2. A temporary 3" veneer of topsoil was respread on 2.1 acres in Section 30, to stabilize long term slopes at the substation and near the shop-office. The veneer will be salvaged and respread during final reclamation. Topsoil in the veneer came from CCMC lands.
3. A small area (0.48 acres TS and 0.69 acres SS) in the E2SE4 Section 30, located north of the substation, was stripped in 2015 and hauled to piles on the west side of Coyote Creek because of poor access to the existing piles north of the office. Because soil from that area wasn't handled separately and stockpiled locally, it wasn't included in the calculations for the shop-office soil balance area.

**2022 COYOTE CREEK MINE SOILS HANDLING PLAN**  
**Haulroad North of County Road 12**

**SPGM Stockpile Inventory (02/01/22)**

**Gunsch**

TS		SS	
Pile Number	Volume (CY)	Pile Number	Volume (CY)
17	68,637	14	31,922
19	13,166	16	62,178
<b>Total</b>	<b>81,803</b>		<b>94,100</b>

**Ottertall**

11	42,281	8	63,141
27	22,662	24	23,913
29	35,954	26	58,519
31	12,862		
37	22,044		
<b>Total</b>	<b>135,802</b>		<b>145,573</b>

**Schwalbe**

21	2,898	34	921
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**State Sec 8**

23	31,544	18	47,885
25	21,884	22	31,995
<b>Total</b>	<b>53,427</b>		<b>79,881</b>

**Grand Total TS      Grand Total SS**

<b>273,930</b>	<b>320,474</b>
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**Acres Disturbed (02/01/22)**

**Gunsch**

	TS R/W	TS Native & Tame	SS R/W	SS Native & Tame
	0.95	40.73	0.68	4.30
<b>Subtotal</b>	<b>0.95</b>	<b>40.73</b>	<b>0.68</b>	<b>31.47</b>

**Ottertall**

		76.22		6.87
				34.40
				0.81
				22.79
<b>Subtotal</b>	<b>0.00</b>	<b>76.22</b>	<b>0.00</b>	<b>64.87</b>

**Schwalbe**

		2.11		0.39
				0.15
<b>Subtotal</b>	<b>0.00</b>	<b>2.11</b>	<b>0.00</b>	<b>0.54</b>

**State Sec 8**

		28.24		23.67
		0.02		0.01
<b>Subtotal</b>	<b>0.00</b>	<b>28.26</b>	<b>0.00</b>	<b>23.68</b>

<b>Total</b>	<b>0.95</b>	<b>147.32</b>	<b>0.68</b>	<b>120.56</b>
<b>Total by Material</b>		<b>148.27</b>		<b>121.24</b>

**Respread Thickness Calculations (02/01/22)**

**Topsoil**

	CY Salvaged	R/W (ac)	Native (ac)	Respread Thickness	
				R/W (in)	Native (in)
Gunsch	81,803	0.95	40.73	6.00	14.8
Ottetail	135,802	-	76.22	-	13.3
Schwalbe	2,898	-	2.11	-	10.2
State Sec 8	53,427	-	28.26	-	14.1

**Subsoil**

	CY Salvaged	R/W (ac)	Native (ac)	Respread Thickness	
				R/W (in)	Native (in)
Gunsch	94,100	0.68	31.47	12.00	22.0
Ottetail	145,573	-	64.87	-	16.7
Schwalbe	921	-	0.54	-	12.7
State Sec 8	79,881	-	23.68	-	25.1

**Summary**

	R/W Respread Thickness			Native Respread Thickness		
	TS	SS	Total	TS	SS	Total
Gunsch	6	12.00	<b>18.00</b>	14.8	22.0	<b>36.8</b>
Ottetail	-	-	-	13.3	16.7	<b>29.9</b>
Schwalbe	-	-	-	10.2	12.7	<b>22.9</b>
State Sec 8	-	-	-	14.1	25.1	<b>39.2</b>

Lands will be sampled during reclamation to assess overburden quality for use as other suitable strata as required by NDAC 69-05.2-08-11.



2A-2) Voigt Associated Disturbance - Native (As of 02/01/22)

TS			SS		
Inches	Acres	CY	Inches	Acres	CY
0	9.63	-	0	40.77	-
3	8.08	3,259	5	3.54	2,380
4	5.23	2,813	6	6.12	4,937
5	1.61	1,082	7	0.00	-
6	11.26	9,083	8	4.11	4,421
7	30.26	28,478	10	3.68	4,948
8	3.48	3,743	12	15.94	25,716
9	5.98	7,256	13	5.02	8,774
12	14.44	23,296	15	4.42	8,914
15	30.43	61,367	16	0.41	882
16	37.88	81,484	17	0.13	297
18	14.19	34,340	18	0.50	1,210
19	2.46	6,284	21	0.06	169
20	2.16	5,808	22	1.93	5,708
21	3.5	9,882	28	0.42	1,581
22	45.97	135,969	30	4.15	16,738
27	6.91	25,083	32	4.88	20,995
28	7.95	29,927	35	0.23	1,082
30	4.59	18,513	38	25.27	129,101
31	12.77	53,222	40	10.88	58,510
32	4.99	21,468	42	6.12	34,557
38	1.03	5,262	44	6.92	40,936
	264.80	567,598	45	15.37	92,988
			50	7.39	49,677
			60	0.35	2,823
				168.61	517,345

Weighted Avg TS (in): 15.9

Weighted Avg SS (in): 22.8

Total (in):

38.8

2A-3) State Associated Disturbance - Native (As of 02/01/22)

TS			SS		
Inches	Acres	CY	Inches	Acres	CY
0	1.52	-	0	4.93	-
3	4.66	1,880	5	0.84	565
4	0.00	-	6	1.04	839
5	1.28	860	8	0.30	323
6	3.85	3,106	10	1.92	2,581
7	4.71	4,433	12	0.51	823
13	0.00	-	13	0.93	1,625
15	0.12	242	15	0.84	1,694
16	0.30	645	18	0.09	218
18	5.79	14,012	22	0.22	651
20	0.09	242	30	0.39	1,573
21	7.51	21,203	38	0.34	1,737
22	1.83	5,413	39	0.14	734
24	0.00	-	40	0.64	3,442
28	0.06	226	42	0.68	3,840
30	0.56	2,259	45	0.10	605
31	9.09	37,885	50	0.04	269
35	10.06	47,338			
38	0.49	2,503			
Weighted Avg TS (in):		51.92	Weighted Avg SS (in):		13.95
		142,246			21,518
		20.4			11.5
			<b>Total (in):</b>		
			<b>31.9</b>		

**2B) Mining Disturbance** - Soil respread thickness is based on projected respread depths found in Section 2.5.7 of NACC-1302. (As of 02/01/22)

**2B-1) Voigt Mining Disturbance**

TS Acres		SS Acres						
Crop	Native	R/W	48" Crop	48" Native	36" Native	36" Crop	24" Crop	24" Native
242.33	175.07		50.13	166.92	11.25	28.43	22.34	
	107.37		10.28	69.26		14.77		
	9.4		15.6	20.0		64.8		
242.33	291.83	0.00	76.00	256.16	11.25	107.96	22.34	
Total Acres TS		534.16	Total Acres SS				473.71	

**2B-2) State Mining Disturbance**

TS Acres		SS Acres						
Crop	Native	R/W	48" Native	36" Native	24" Native	R/W	36" Crop	36" Native
	273.75		245.48	2.11	0.85			
	243.26		190.04	30.35	1.85			
	29.37		22.66					
0.00	546.38	0.00	458.18	32.46	2.70	0.00	0.00	
Total Acres TS		546.38	Total Acres SS			493.3		

**2B-3) P Winkler Mining Disturbance**

TS Acres		SS Acres						
Crop	Native	R/W	48" Native	36" Native	24" Native	R/W	36" Crop	36" Native
	1.99		1.54					
0.00	1.99	0.00	1.54	0.00	0.00	0.00	0.00	0.00
Total Acres TS		1.99	Total Acres SS			1.5		

**2B-4) Winkler Mining Disturbance**

TS Acres		SS Acres						
Crop	Native	R/W	48" Native	36" Native	24" Native	R/W	36" Crop	36" Native
	1.26		0.02					
0.00	1.26	0.00	0.02	0.00	0.00	0.00	0.00	0.00
Total Acres TS		1.26	Total Acres SS			0.0		

3) Determine SPMG Respread Thickness Required by Disturbance Type (Assoc. vs Mining) and Surface Owner (As of 02/01/22)

Topsoil	Voigt			State			Subtotal	R/W	Winkler Native	Total
	Crop	Native	R/W	Crop	Native	R/W				
Assoc Dist Acres	16.91	264.80	1.02	282.73	51.92	-	51.92	-	1.99	
Mining Dist Acres	242.33	291.83	-	534.16	546.38	-	546.38	-	1.26	
Total Acres	259.24	556.63	1.02	816.89	598.30	-	598.30	-	1.26	1418.44
CY	633.927	912.130	823	1,546,880	1,090,154	0	1,090,154	0	1,659	2,639,896
Inches	18.19	12.19	6.0	NA	13.55	-	NA	-	6.2	13.8

\*Based on both Sections 2.5.4.2 and 2.5.4.1, Voigt topsoil is 4% thicker than State owned lands but Voigts also asked for additional cropland so need to prorated accordingly by finding State's thickness first.  
 Assume State Thickness is "Z" in following formula. (Total State acres x Z x 43560) + (Total Voigt acres less R/W x 1.04Z x 43560) = (Topsoil Stockpile Volume - RW Volume - P Winkler Volume - Winkler Vol  
 So: (598.30 x Z x 43560) + (815.87 x 1.04Z x 43560) = 2636211 x 27 Solving for Z = 1.1294 feet or 13.55 inches which equates to 1,090,154 CY of topsoil for State and Voigts get remaining 1,546,880 CY  
 Assume Voigts Native Thickness is "Z" in following formula: (Voigt Native Acres x Z x 43560) + (Voigt Crop Acres x (Z+0.5) x 43560) = Voigt Topsoil Volume x 27  
 So: (536.63 x Z x 43560) + (259.24 x (Z + 0.5) x 43560) = 1,546,057 x 27 Solving for Z = 1.0157 feet or 12.19 inches for Native and 18.19 inches for cropland.  
 \*\*Topsoil will not be respread at different thicknesses based on disturbance type. Associated disturbance calculations will be used to determine total respread depth only.  
 \*\*\*Cropland topsoil is calculated to be respread at approximately 6" thicker than native topsoil.  
 \*\*\*\* Winkler's and P Winkler's topsoil thickness determined by taking the weighted average of all the topsoil depth inside the mining disturbance boundary

Subsoil	Voigt						State					
	Assoc Dist	Native	Crop	Native	Crop	R/W	Assoc Dist	Native	Crop	Native	Crop	R/W
Total Rspd Land Use	48	38.8	48	48	36	24	31.9	48	36	24	24	48
Acres	14.32	169.63	76.00	256.16	107.96	22.34	13.95	458.18	32.46	2.70	3.792	1166.51
CY	57,394	606,109	304,607	1,233,320	258,527	17,455	34,319	2,121,935	97,961	3,792	8,654	4,780,198
Inches	29.8	26.6	29.8	35.8	17.8	5.8	18.3	34.4	22.4	10.4	41.8	30.5

Total SS Volume Required (cy)	4,780,198
Total Available SS (cy)	5,188,032
SS Excess/Deficit (cy)	407,834

Notes

1. Calculations below were used to compare Voigt and State topsoil thickness in both the mining disturbance area and permit area and come from Section 2.5 in the NACC-1302. It appears that Voigt owned surface consistently has an average of 4% thicker topsoil. Therefore, this was used in the calculations in (3) above, when determining topsoil respread by owner.

	Acres	CY	In	Acres	CY	In
Voigt	1,621	3,166,212	14.5	3,250	6,610,146	15.1
State	1,307	2,460,036	14.0	1,807	3,490,464	14.4
Difference between Voigt and State			4%			5%

**4) Determine 2021 Subsoil Salvage Volume Required (02/01/22 - 02/01/23)**

**4A) Projected Associated Disturbance (02/01/22 - 02/01/23):**

The amount of redistributed SPGM in associated disturbance areas must be based on the amount removed (NDAC 69-05.2-15-04). Calculations in Section 2A determine total respread thickness on areas of associated disturbance. A unique topsoil thickness will not be calculated for associated versus mining disturbance areas. Associated disturbance areas will be respread with the calculated topsoil respread thickness based on inventoried yards. Subsoil will be respread at a thickness necessary to achieve the associated disturbance premine weighted average soil thickness, by landowner.

**4A-1) State Associated Disturbance - Native**

TS			SS		
Inches	Acres	CY	Inches	Acres	CY
0	1.21	-	0	0.00	-
4	0.00	-	5	0.00	-
5	0.00	-	6	0.64	516
6	0.00	-	8	0.00	-
7	1.84	1,732	10	0.00	-
15	0.00	-	12	0.00	-
16	0.00	-	13	0.00	-
18	0.06	145	15	2.70	5,445
21	0.31	875	18	0.00	-
28	0.01	38	32	0.02	86
30	0.01	40	38	0.96	4,905
31	0.00	-	49	0.63	4,150
35	2.30	10,823	60	0.88	7,099
	5.74	13,653	102	0.00	-
				5.83	22,201

Weighted Avg TS (in): 17.7

Weighted Avg SS (in): 28.3

**Total (in): 46.0**

4A-2) Voigt Associated Disturbance - Native

TS	
Inches	Acres
6	0.00
7	1.00
16	1.15
18	0.00
22	0.00
38	0.00
2.15	3,415

Weighted Avg TS (in): 11.8

Weighted Avg SS (in): 34.7

Total (in): 46.5

SS	
Inches	Acres
0	0.00
6	0.48
10	0.09
22	0.00
38	0.86
40	2.46
65	0.00
3.89	18,131

4A-3) Voigt Associated Disturbance - Crop

TS	
Inches	Acres
15	0.00
16	0.00
22	0.00
0.00	-

Weighted Avg TS (in): 0.0

Weighted Avg SS (in): 0.0

Total (in): 0.0

SS	
Inches	Acres
0	0.00
38	0.00
45	0.00
0.00	-

4A-4) Winkler's Associated Disturbance - Native

TS	
Inches	Acres
0	0.00
3	0.00
6	0.00
7	0.00
15	0.00
0.00	-

Weighted Avg TS (in): 0.0

Weighted Avg SS (in): 0.0

Total (in): 0.0

SS	
Inches	Acres
0	0.00
6	0.00
8	0.00
12	0.00
40	0.00
0.00	-

4A-5) P Winkler Associated Disturbance - Native

TS	
Inches	Acres
0	0.00
3	0.00
6	0.00
7	0.00
15	0.00
0.00	-

Weighted Avg TS (in): 0.0

Weighted Avg SS (in): 0.0

Total (in): 0.0

SS	
Inches	Acres
0	0.00
6	0.00
8	0.00
12	0.00
40	0.00
0.00	-

4B) Projected Mining Disturbance (02/01/22 - 02/01/23)

4B-1) Yoigt Mining Disturbance - Crop

TS		
Inches	Acres	CY
0	1.12	-
3	0.28	113
7	2.63	2,475
9	6.91	8,361
15	9.50	19,158
16	3.86	8,303
17	0.34	777
18	1.45	3,509
21	0.07	198
22	18.88	55,843
28	6.01	22,624
30	0.41	1,654
	51.46	123,015

Weighted Avg TS (in): 17.8

SS		
Inches	Acres	CY
0	13.62	-
6	2.14	1,726
15	0.74	1,492
30	0.45	1,815
32	4.61	19,833
38	16.79	85,778
40	3.99	21,457
43	0.12	694
45	0.93	5,626
50	0.43	2,891
56	3.04	22,888
60	0.00	-
62	1.20	10,003
66	0.00	-
68	0.00	-
80	0.83	8,927
89	0.13	1,556
92	0.00	-
98	9.12	120,161
104	2.96	41,387
105	15.87	224,031
115	0.00	-
	76.97	570,264

Weighted Avg SS (in): 55.1

Total: 72.9

4B-2) State Mining Disturbance - Native

TS		SS	
Inches	Acres	Acres	CY
0	2.18	17.05	-
3	9.39	0.00	-
4	0.90	3.48	2,807
5	0.00	0.31	333
6	0.31	0.08	108
7	9.76	2.92	4,711
9	0.72	2.02	3,530
13	0.00	4.39	8,853
15	1.94	1.09	5,129
16	2.59	7.31	37,346
17	0.00	15.01	78,713
18	0.78	2.44	13,122
20	0.00	0.60	3,953
21	4.88	3.00	20,167
22	0.24	0.46	3,278
28	0.68	1.47	17,589
30	0.29	0.29	3,509
31	2.02	0.87	10,761
35	1.49	3.88	51,121
	38.17	3.19	42,459
		1.20	16,779
		71.06	324,267

Weighted Avg TS (in): 11.6

Weighted Avg SS (in): 33.9

Total: 45.6

4B-3) Yoigt Mining Disturbance - Native

TS		
Inches	Acres	CY
0	3.43	-
3	47.15	19,017
4	0.00	-
6	3.84	3,098
7	40.43	38,049
9	1.42	1,718
15	3.77	7,603
16	3.13	6,733
18	2.94	7,115
20	0.07	188
21	1.95	5,505
22	0.45	1,331
30	8.20	33,073
31	1.12	4,668
35	3.57	16,799
	121.47	144,897

Weighted Avg TS (in): 8.87

4B-4) Winkler's Mining Disturbance - Native

TS		
Inches	Acres	CY
0	0.21	-
3	2.84	1,145
6	0.81	653
7	0.17	160
15	0.26	524
	4.29	2483.18

Weighted Avg TS (in): 4.31

4B-5) P Winkler's Mining Disturbance - Native

TS		
Inches	Acres	CY
0	0.00	-
3	0.00	-
6	0.00	-
7	0.00	-
22	0.00	-
	0.00	0.00

Weighted Avg TS (in): 0.00

SS		
Inches	Acres	CY
0	51.09	0
4	1.22	656
6	15.65	12624
8	5.86	6303
10	1.96	2635
12	19.18	30944
15	11.47	23131
38	6.14	31368
39	0.46	2412
40	0.21	1129
42	4.16	23490
45	0.16	968
50	0.25	1681
54	0.48	3485
57	0.62	4751
62	1.08	9002
66	0.64	5679
89	0.07	838
98	3.76	49540
104	3.32	46421
113	0.25	3798
	128.03	260,855

Weighted Avg SS (in): 15.15

Total: 24.0

SS		
Inches	Acres	CY
0	4.16	0
5	0.00	0
8	0.81	871
12	0.17	274
35	0.28	1318
	5.42	2463.01

Weighted Avg SS (in): 3.38

Total: 7.7

SS		
Inches	Acres	CY
0	0.00	0
5	0.00	0
6	0.00	0
10	0.00	0
40	0.00	0
	0.00	0.00

Weighted Avg SS (in): 0.00

Total: 0.0

5) Determine SPGM Available (02/01/22 - 02/01/23)

Summary	Voigt		Voigt		State		Winkler's		P Winkler		Total
	Mining Dist		Assoc Dist		Mining Dist		Assoc Dist		Mining Dist		
	Native	Crop	Native	Crop	Native	Crop	Native	Crop	Native	Crop	
TS CY	144,897	123,015	3,415	0	13,653	59,596	0	2,483	0	0	347,059
TS Inches	8.9	17.8	11.8	0.0	17.7	11.6	0.0	4.3	0.0	0.0	11.6
SS CY	260,855	570,264	18,131	0	22,201	324,267	0	2,463	0	0	1,198,181
SS Inches	15.2	55.1	34.7	0.0	28.3	33.9	0.0	3.4	0.0	0.0	41.6
Total Available (In)	24.0	72.9	46.5	0.0	46.0	45.6	0.0	7.7	0.0	0.0	53.2
Total Available (CY)	405,752	693,279	21,546	0	35,854	383,863	0	4,946	0	0	1,545,240

\* Winkler's and P Winkler's topsoil thickness determined by taking the weighted average of all the topsoil depth inside the mining disturbance boundary

6) Determine SPGM Excess/Deficit (02/01/22 - 02/01/23)

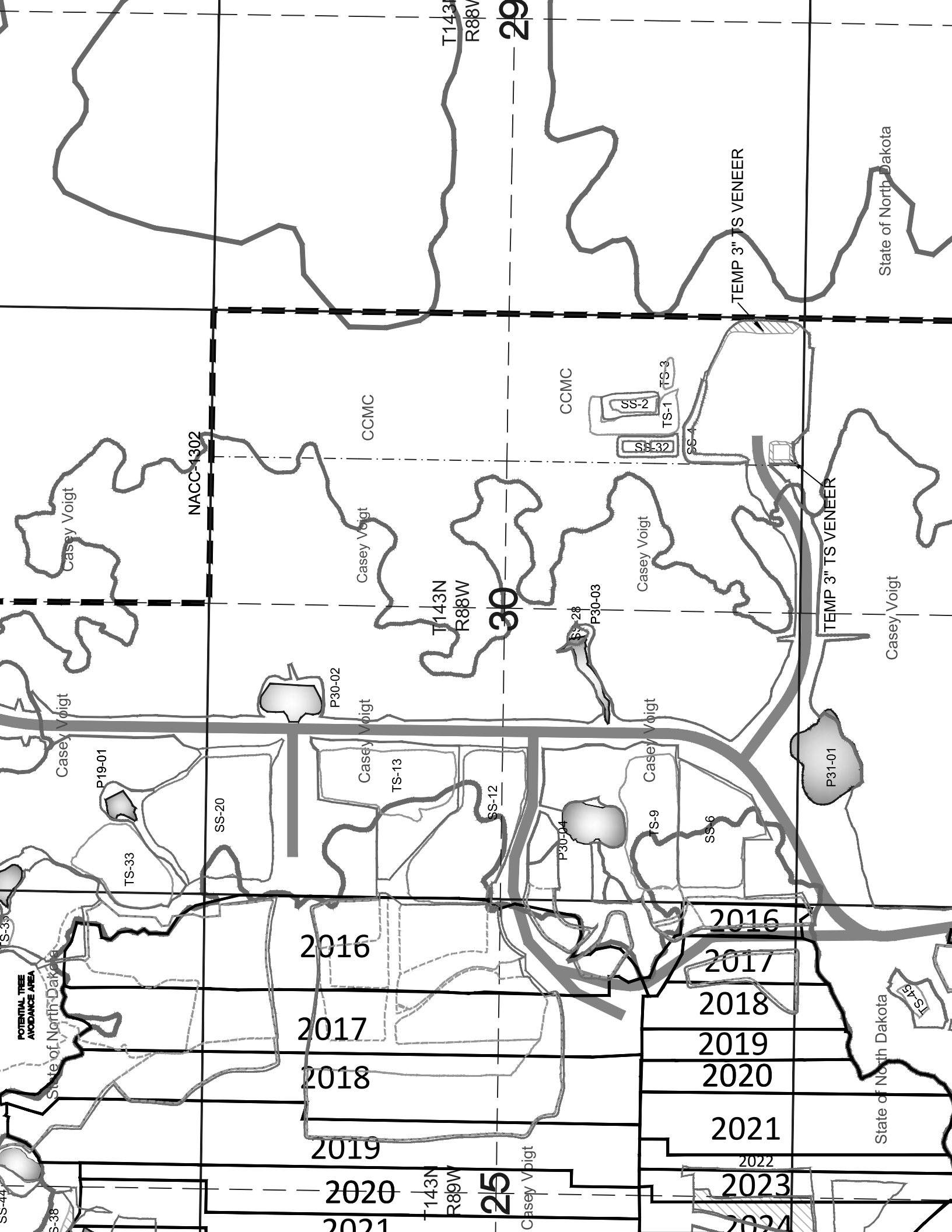
Summary	Voigt				State				Winkler's				P Winkler			
	Assoc Dist		Mining Dist		Assoc Dist		Mining Dist		Assoc Dist		Mining Dist		Assoc Dist		Mining Dist	
	Native	Crop	Native	Crop	Native	Crop	Native	Crop	Native	Crop	Native	Crop	Native	Crop	Native	Crop
Total Rspd Required (in)	46.5	0.0	48.0	36.0	24.0	48.0	36.0	24.0	46.0	48.0	36.0	24.0	48.0	48.0	36.0	24.0
Land Use Acres	3.89	0.00	120.79	7.72	40.28	28.73	4.77	5.83	62.68	8.51	0.00	5.45	7.1	0.00	0.00	288.65
Total TS Required (In)	12.2	18.2	12.2	12.2	18.2	18.2	18.2	13.6	13.6	13.6	13.6	13.6	10.4	0.0	6.2	41.8
Total SS Required (In)	34.3	-18.2	35.8	23.8	11.8	29.8	17.8	5.8	32.5	34.4	22.4	10.4	40.9	0.0	41.8	0.0
Total SS Required (CY)	17,935	0	581,584	24,721	0	161,427	68,794	3,725	25,445	290,292	25,690	0	29,953	0	1,229,567	0
SS Excess/Deficit (CY)	-196	0	-345,449	-345,449	336,318	336,318	8,284	8,284	-3,244	-3,244	-27,490	-27,490	0	0	-31,778	0

\*Total TS required based on 2022 respread depth.

\*\* Winkler's and P Winkler's topsoil thickness determined by taking the weighted average of all the topsoil depth inside the mining disturbance boundary

2022 Projections:

Total SS Volume Required (cy)	1,229,567	6,009,765	4.3%
Excess/Deficit from Previous Year (cy)	407,834		
Total Available SS including Deep Lift (cy)	1,198,181		
Subsoil to be Salvaged (90%) (cy)	1,078,363		
<b>Total SS Excess/Deficit (cy)</b>	<b>256,629</b>	<b>206,629</b>	<b>3.4%</b>
Total SS Acres Disturbed	1,455		
<b>Surplus as inches</b>	<b>1.3</b>		



POTENTIAL TREE AVOIDANCE AREA

State of North Dakota

State of North Dakota

State of North Dakota

2016

2017

2018

2019

2020

2021

2016

2017

2018

2019

2020

2021

2022

2023

2024

T143N  
R88W

29

T143N  
R88W

30

T143N  
R89W

25

NACC-1302

CCMC

CCMC

TEMP 3" TS VENEER

TEMP 3" TS VENEER

Casey Voigt

Casey Voigt

Casey Voigt

Casey Voigt

Casey Voigt

Casey Voigt

Casey Voigt

P19-01

P30-02

P30-03

P31-01

TS-33

TS-13

SS-12

P30-04

TS-9

SS-6

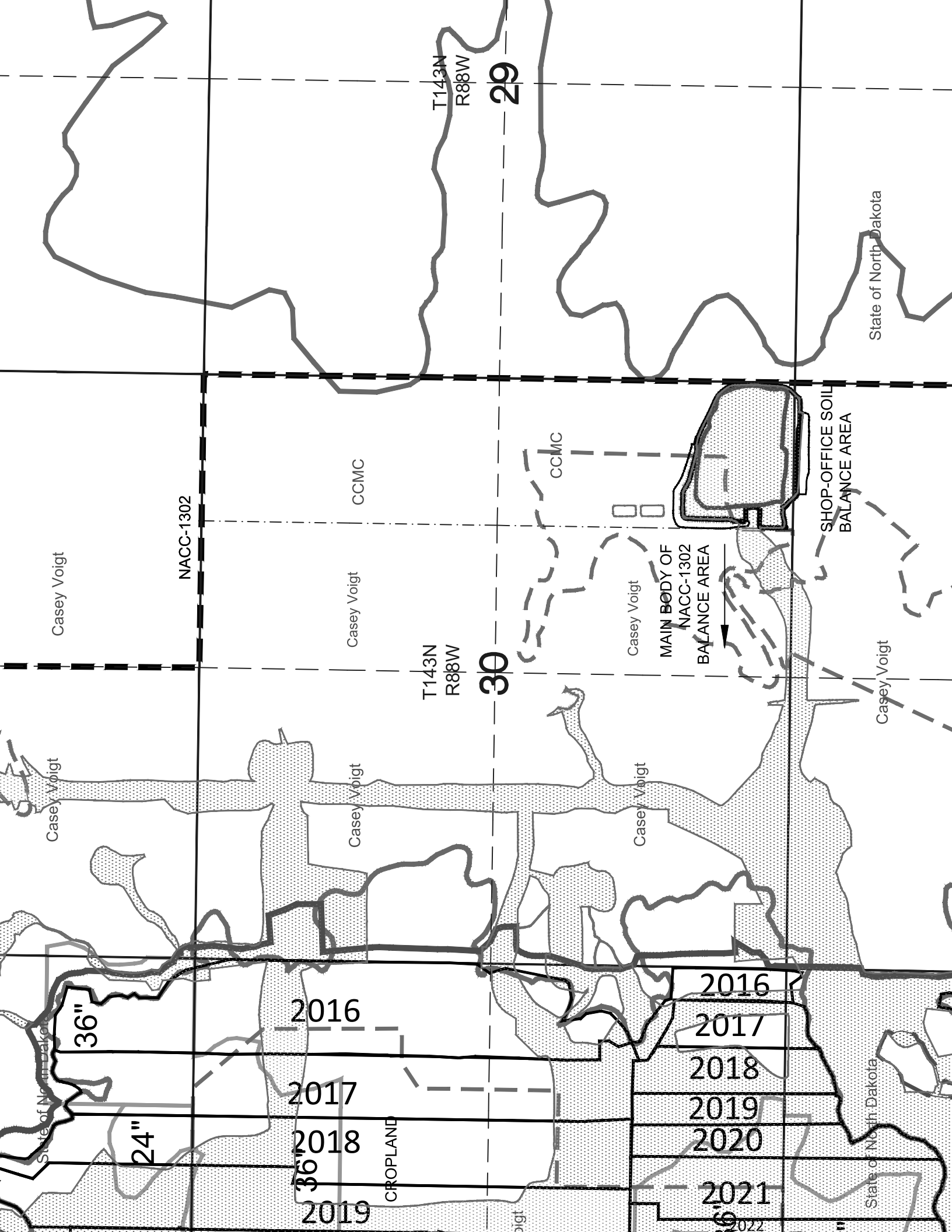
TS-3

SS-38

SS-44

TS-43

Casey Voigt



T143N  
R88W

29

State of North Dakota

NACC-1302

CCMC

CCMC

SHOP-OFFICE SOIL  
BALANCE AREA

Casey Voigt

Casey Voigt

Casey Voigt

MAIN BODY OF  
NACC-1302  
BALANCE AREA

Casey Voigt

T143N  
R88W

30

Casey Voigt

Casey Voigt

Casey Voigt

36"

2016

2016

2017

2017

2018

24"

2018

2019

2019

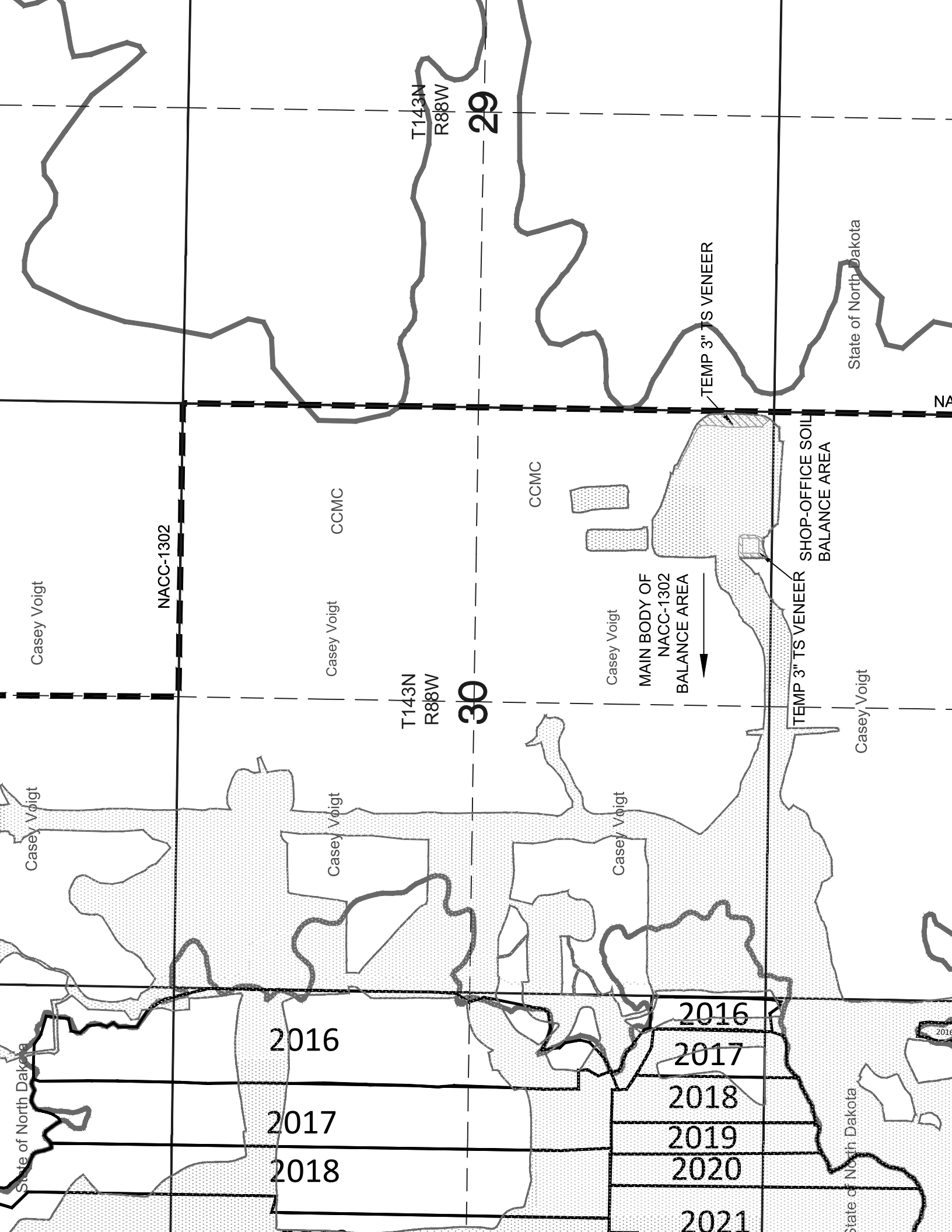
2020

CROPLAND

2021

2022

State of North Dakota



Casey Voigt

NACC-1302

CCMC

Casey Voigt

CCMC

T143N  
R88W

30

Casey Voigt

MAIN BODY OF  
NACC-1302  
BALANCE AREA

TEMP 3" TS VENEER

SHOP-OFFICE SOIL  
BALANCE AREA

TEMP 3" TS VENEER

Casey Voigt

Casey Voigt

Casey Voigt

Casey Voigt

2016

2017

2018

2016

2017

2018

2019

2020

2021

State of North Dakota

State of North Dakota

State of North Dakota

2016