

Appendix L

Power Cost Sub-Area Analysis for the Similar Projects

Columbia Basin Project

Power Cost Sub-Area Analysis

USBR/Klamath Project - AWIA Power Cost Benchmark Analysis
Columbia Basin Irrigation Project Electric Utility Load Ratio Summary
Calendar Years 2017 and 2018

Electric Utility Provider	Utility Service Territory Load Ratios
Avista Corporation - WA Rates	0.0327
Big Bend Electric Coop	0.2927
Columbia REA - WA Rates	0.0068
Franklin County PUD	0.0637
Grant County PUD	0.6040
Total	0.9999

Notes: 1) The Utility Service Territory Load Ratios shown in the above table represent the fraction of the total 2017-2018 Columbia Basin Project Electric Utility irrigation load that is served by the indicated Electric Utility Provider.

USBR/Klamath Project - AWIA Power Cost Benchmark Analysis
Columbia Basin Irrigation Project Electric Utility Service Area Ratio and Load Ratio Calculations
Calendar Years 2017 and 2018

CBP Electric Utility Annual Irrigation Power Usage (Mwh/Yr)	231,200
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Area/Load Allocations - Step 1

Electric Utility Provider	Utility Service Territory Area (Local Square Grids)	Utility Service Territory Area Ratio	Step 1 Annual CBP Irrigation Load (Mwh)	2017/2018 Actual Total Irrigation Load (Mwh)	Is Step 1 CBP Load Greater than Actual Load?	Excess Load to Re-allocate to other Utilities (Mwh)
Avista Corporation - WA Rates	335.97	0.0327	7,560	145,808	No	0
Big Bend Electric Coop	3,002.74	0.2927	67,672	425,605	No	0
Columbia REA - WA Rates	69.94	0.0068	1,572	207,348	No	0
Franklin County PUD	653.71	0.0637	14,727	109,889	No	0
Grant County PUD	6,196.46	0.6040	139,645	599,556	No	0
Total	10,258.83	0.9999	231,177			0

Area/Load Allocations - Step 2

Electric Utility Provider	Preliminary		Final		
	Total Annual CBP Irrigation Load (Mwh)	Excess Load Reallocation (Mwh)	Total Annual CBP Irrigation Load (Mwh)	Utility Service Territory Load Ratio	Final CBP Load Greater than Actual Load?
Avista Corporation - WA Rates	7,560	0	7,560	0.0327	No
Big Bend Electric Coop	67,672	0	67,672	0.2927	No
Columbia REA - WA Rates	1,572	0	1,572	0.0068	No
Franklin County PUD	14,727	0	14,727	0.0637	No
Grant County PUD	139,645	0	139,645	0.6040	No
Total	231,177	0	231,177	0.9999	

USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

Columbia Basin Irrigation Project Electric Utility Service Territory Area Calculations

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Map Label	Total Area (Local Square Grids)	Electric Utility Provider	Coverage Ratio	Final Utility Sub-Area (Local Square Grids)
CBP Map 1 - Sub-Area A	27.57	Grant County PUD	1.00	27.57
CBP Map 1 - Sub-Area B	11.73	Grant County PUD	1.00	11.73
CBP Map 1 - Sub-Area C	6.82	Grant County PUD	1.00	6.82
CBP Map 1 - Sub-Area D	15.21	Grant County PUD	1.00	15.21
CBP Map 1 - Sub-Area E	62.26	Grant County PUD	1.00	62.26
CBP Map 1 - Sub-Area F	48.89	Grant County PUD	1.00	48.89
CBP Map 2 - Sub-Area A	1,238.84	Grant County PUD	1.00	1,238.84
CBP Map 2 - Sub-Area B	634.34	Grant County PUD	1.00	634.34
CBP Map 2 - Sub-Area C	56.26	Grant County PUD	1.00	56.26
CBP Map 2 - Sub-Area D	476.11	Grant County PUD	1.00	476.11
CBP Map 2 - Sub-Area E	9.88	Grant County PUD	1.00	9.88
CBP Map 2 - Hole F	(23.37)	Grant County PUD	1.00	(23.37)
CBP Map 3 - Sub-Area A	624.24	Grant County PUD	1.00	624.24
CBP Map 3 - Sub-Area B1	831.93	Grant County PUD	1.00	831.93
CBP Map 3 - Sub-Area B2	13.38	Big Bend Elec Coop	1.00	13.38
CBP Map 3 - Sub-Area B3	36.49	Big Bend Elec Coop	1.00	36.49
CBP Map 3 - Sub-Area B4	25.81	Avista Corporation - WA Rates	1.00	25.81
CBP Map 3 - Sub-Area C	7.91	Grant County PUD	1.00	7.91
CBP Map 3 - Sub-Area D	21.22	Grant County PUD	1.00	21.22
CBP Map 3 - Hole E	(37.38)	Grant County PUD	1.00	(37.38)
CBP Map 3 - Hole F	(2.41)	Grant County PUD	1.00	(2.41)
CBP Map 3 - Hole G	(1.52)	Grant County PUD	1.00	(1.52)
CBP Map 3 - Hole H	(2.72)	Grant County PUD	1.00	(2.72)
CBP Map 3 - Sub-Area I1	3.45	Grant County PUD	1.00	3.45
CBP Map 3 - Sub-Area I2	3.75	Avista Corporation - WA Rates	1.00	3.75
CBP Map 4 - Sub-Area A	1,274.53	Grant County PUD	1.00	1,274.53
CBP Map 4 - Sub-Area B	62.35	Grant County PUD	1.00	62.35
CBP Map 4 - Sub-Area C	36.24	Grant County PUD	1.00	36.24
CBP Map 5 - Sub-Area A	750.10	Grant County PUD	1.00	750.10
CBP Map 6 - Sub-Area A1	64.00	Grant County PUD	1.00	64.00
CBP Map 6 - Sub-Area A2	70.41	Big Bend Elec Coop	1.00	70.41
CBP Map 6 - Sub-Area B1	457.33	Avista Corporation - WA Rates	0.67	306.41
CBP Map 6 - Sub-Area B1	457.33	Big Bend Elec Coop	0.33	150.92
CBP Map 6 - Sub-Area B2	484.75	Big Bend Elec Coop	1.00	484.75
CBP Map 6 - Sub-Area B3	4.92	Big Bend Elec Coop	1.00	4.92
CBP Map 6 - Sub-Area B4	2.14	Big Bend Elec Coop	1.00	2.14
CBP Map 6 - Sub-Area B5	2.96	Big Bend Elec Coop	1.00	2.96
CBP Map 6 - Sub-Area B6	2.62	Big Bend Elec Coop	1.00	2.62
CBP Map 6 - Sub-Area B7	9.61	Big Bend Elec Coop	1.00	9.61
CBP Map 6 - Sub-Area C1	418.95	Big Bend Elec Coop	1.00	418.95
CBP Map 6 - Sub-Area C2	37.19	Franklin County PUD	1.00	37.19
CBP Map 6 - Sub-Area D	7.73	Big Bend Elec Coop	1.00	7.73
CBP Map 6 - Sub-Area E	3.38	Big Bend Elec Coop	1.00	3.38
CBP Map 6 - Sub-Area F	6.67	Big Bend Elec Coop	1.00	6.67
CBP Map 6 - Sub-Area G	13.80	Big Bend Elec Coop	1.00	13.80
CBP Map 6 - Sub-Area H	15.02	Franklin County PUD	1.00	15.02
CBP Map 6 - Sub-Area I	33.98	Franklin County PUD	1.00	33.98
CBP Map 6 - Sub-Area J	4.15	Franklin County PUD	1.00	4.15
CBP Map 6 - Sub-Area K1	156.71	Franklin County PUD	1.00	156.71

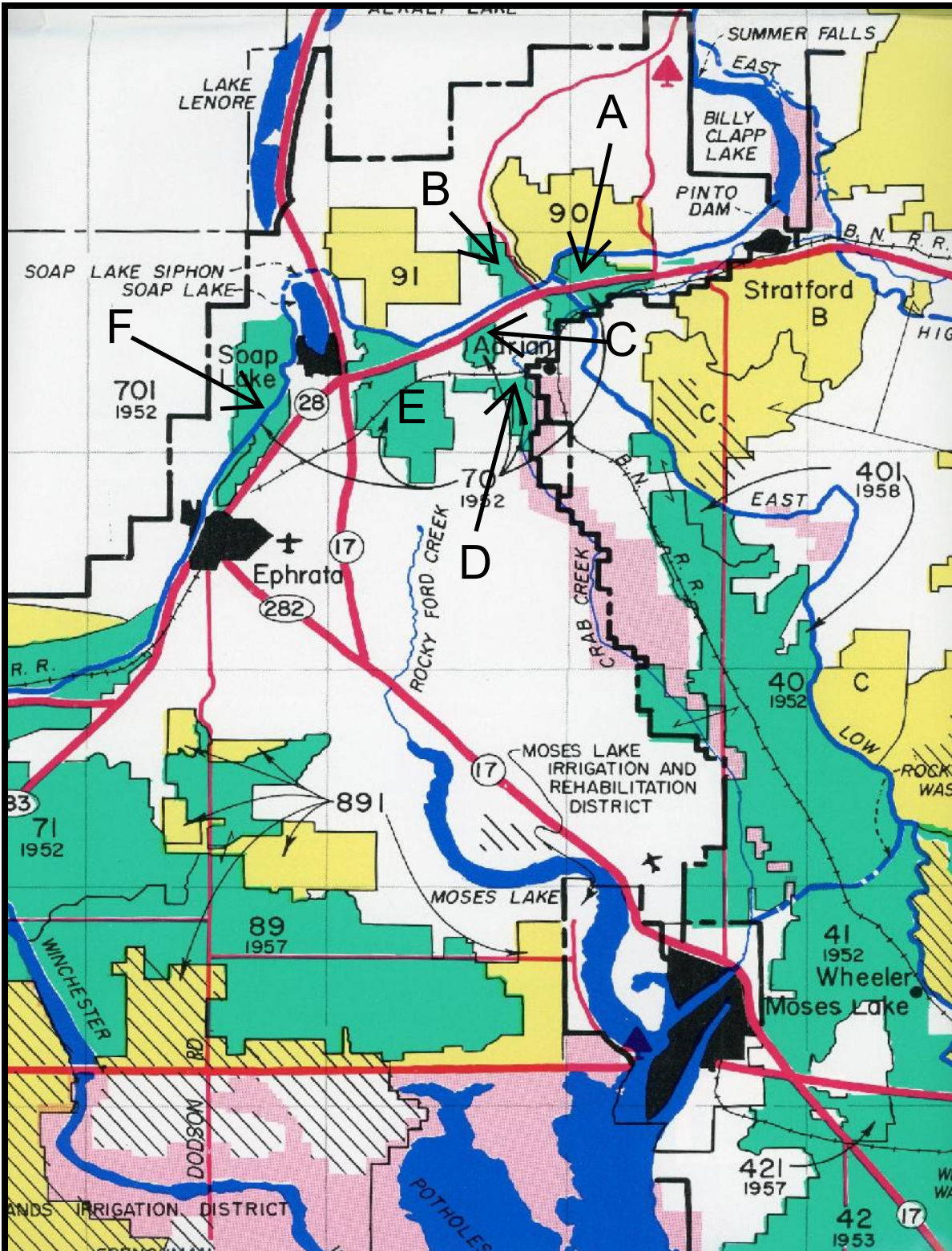
USBR/Klamath Project - AWIA Power Cost Benchmark Analysis
Columbia Basin Irrigation Project Electric Utility Service Territory Area Calculations (Continued)

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Map Label	Total Area (Local Square Grids)	Electric Utility Provider	Coverage Ratio	Final Utility Sub-Area (Local Square Grids)
CBP Map 6 - Sub-Area K2	296.26	Big Bend Elec Coop	1.00	296.26
CBP Map 6 - Sub-Area K3	32.40	Big Bend Elec Coop	1.00	32.40
CBP Map 6 - Sub-Area K4	143.64	Big Bend Elec Coop	1.00	143.64
CBP Map 6 - Sub-Area K5	163.76	Franklin County PUD	1.00	163.76
CBP Map 6 - Hole L1	(3.28)	Big Bend Elec Coop	1.00	(3.28)
CBP Map 6 - Hole L2	(8.89)	Franklin County PUD	1.00	(8.89)
CBP Map 6 - Hole M	(1.44)	Franklin County PUD	1.00	(1.44)
CBP Map 6 - Hole N	(1.20)	Franklin County PUD	1.00	(1.20)
CBP Map 7 - Sub-Area A1	227.13	Franklin County PUD	1.00	227.13
CBP Map 7 - Sub-Area A2	1,000.08	Big Bend Elec Coop	1.00	1,000.08
CBP Map 7 - Sub-Area B1	91.28	Big Bend Elec Coop	1.00	91.28
CBP Map 7 - Sub-Area B2	16.55	Franklin County PUD	1.00	16.55
CBP Map 7 - Sub-Area C1	220.62	Big Bend Elec Coop	1.00	220.62
CBP Map 7 - Sub-Area C2	10.76	Franklin County PUD	1.00	10.76
CBP Map 7 - Hole E	(2.47)	Big Bend Elec Coop	1.00	(2.47)
CBP Map 7 - Hole F	(3.52)	Big Bend Elec Coop	1.00	(3.52)
CBP Map 7 - Sub-Area G	24.69	Columbia REA - WA Rates	1.00	24.69
CBP Map 7 - Sub-Area H	29.13	Columbia REA - WA Rates	1.00	29.13
CBP Map 7 - Hole I	(1.23)	Columbia REA - WA Rates	1.00	(1.23)
CBP Map 7 - Sub-Area J	17.34	Columbia REA - WA Rates	1.00	17.34
CBP Map 7 - Hole K	(1.00)	Big Bend Elec Coop	1.00	(1.00)
Total Area	10,716.16			10,258.83

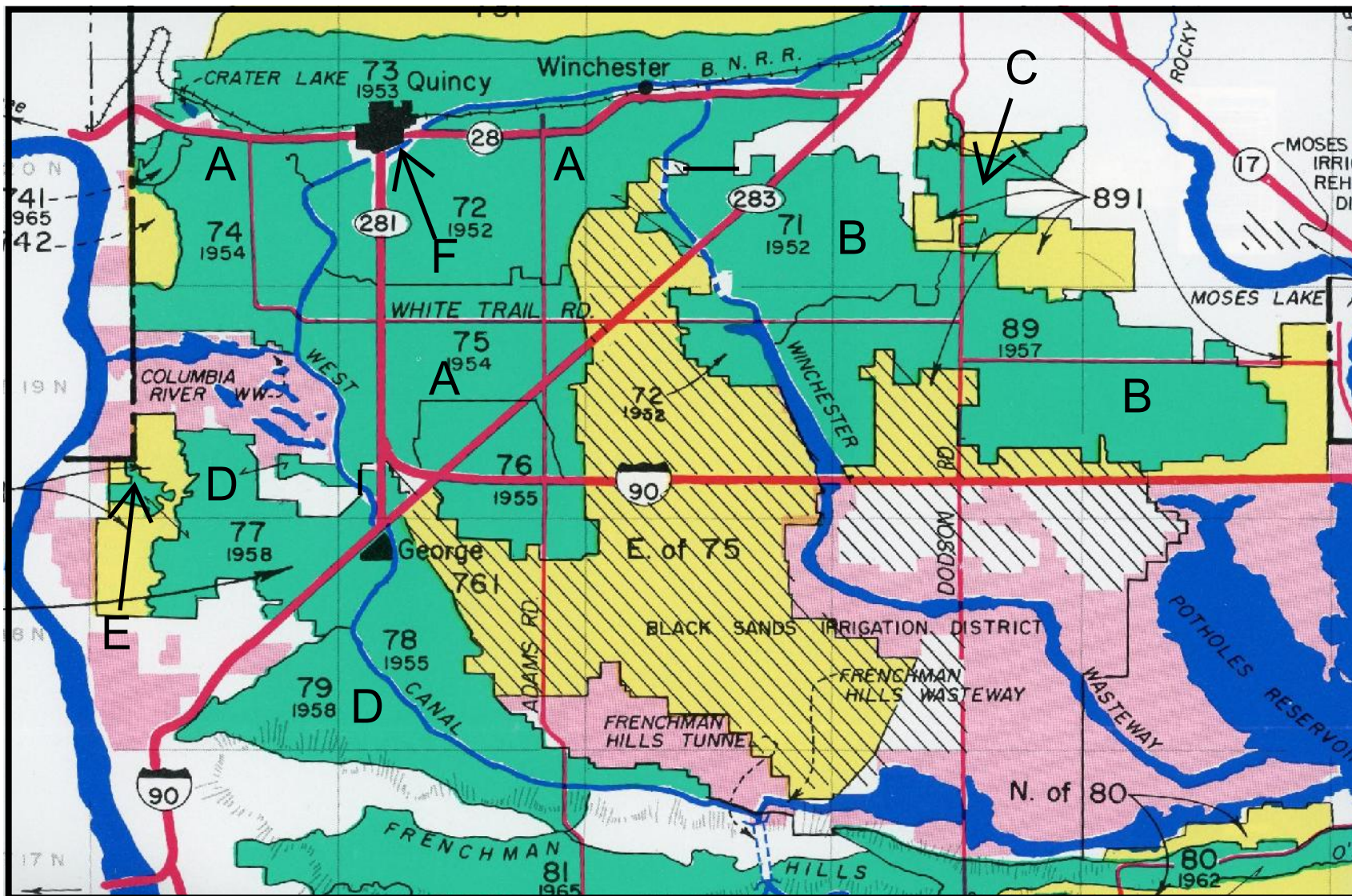
COLUMBIA BASIN PROJECT

CBP Sub-Area Map 1



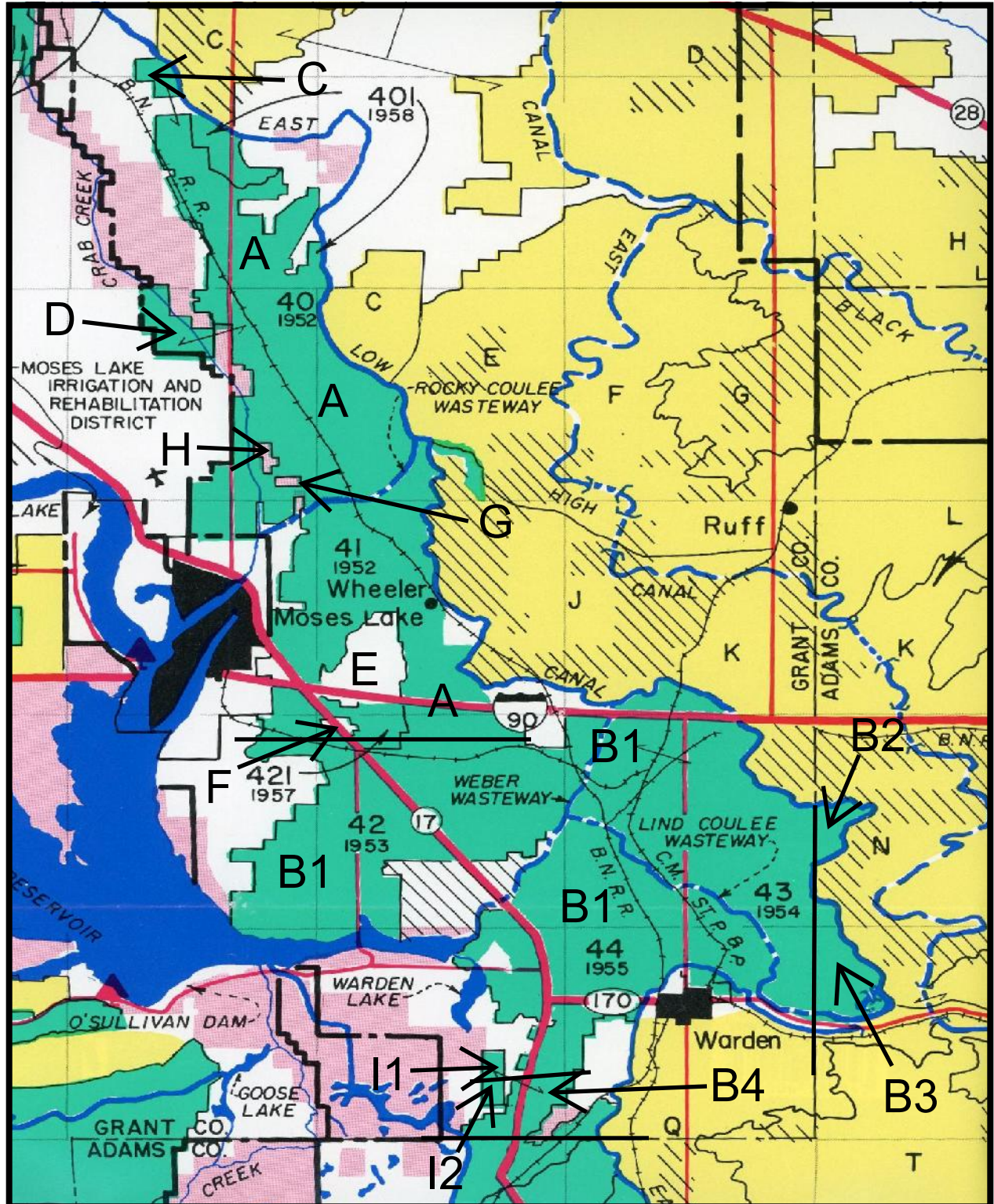
COLUMBIA BASIN PROJECT

CBP Sub-Area Map 2



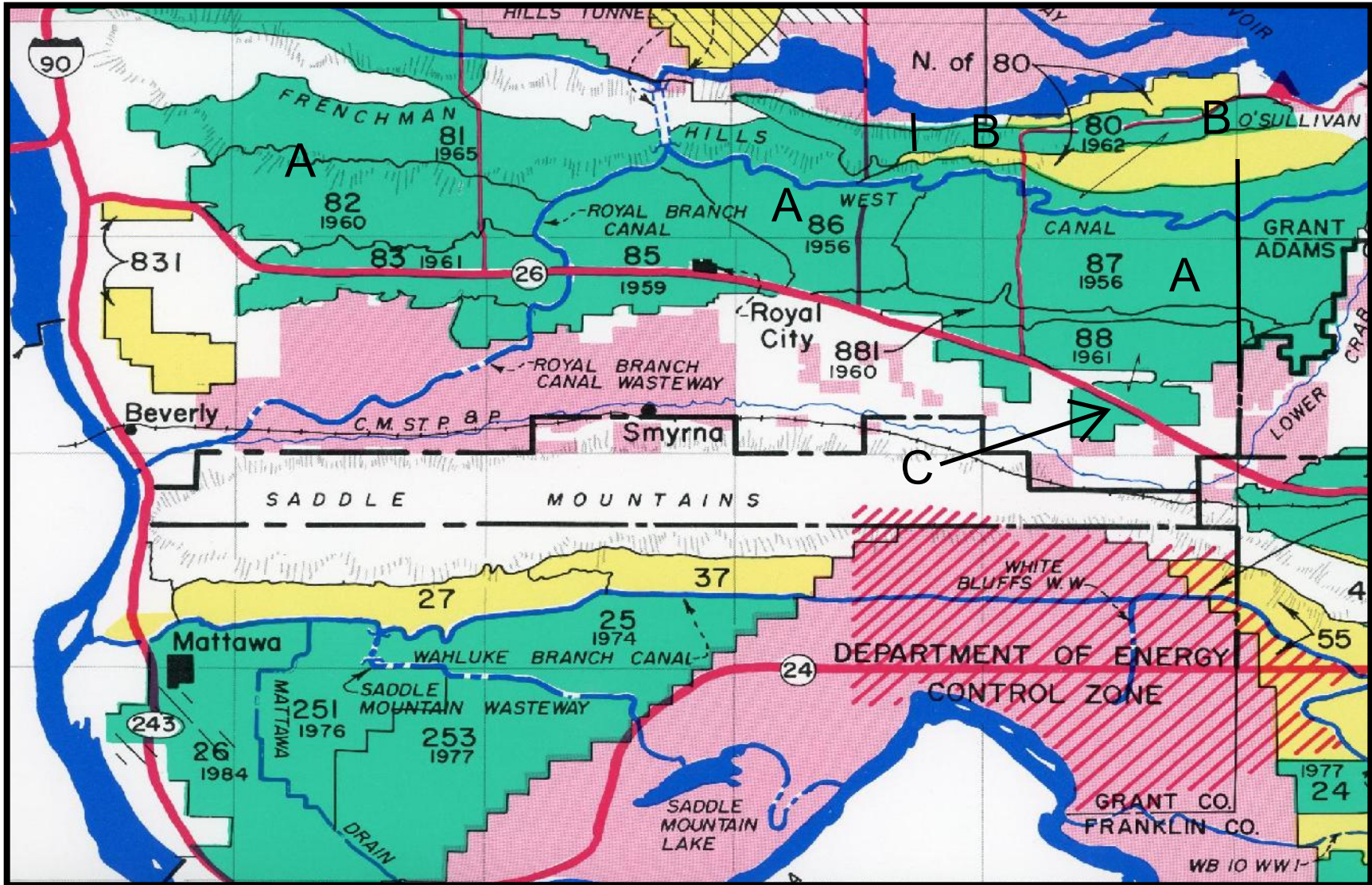
COLUMBIA BASIN PROJECT

CBP Sub-Area Map 3



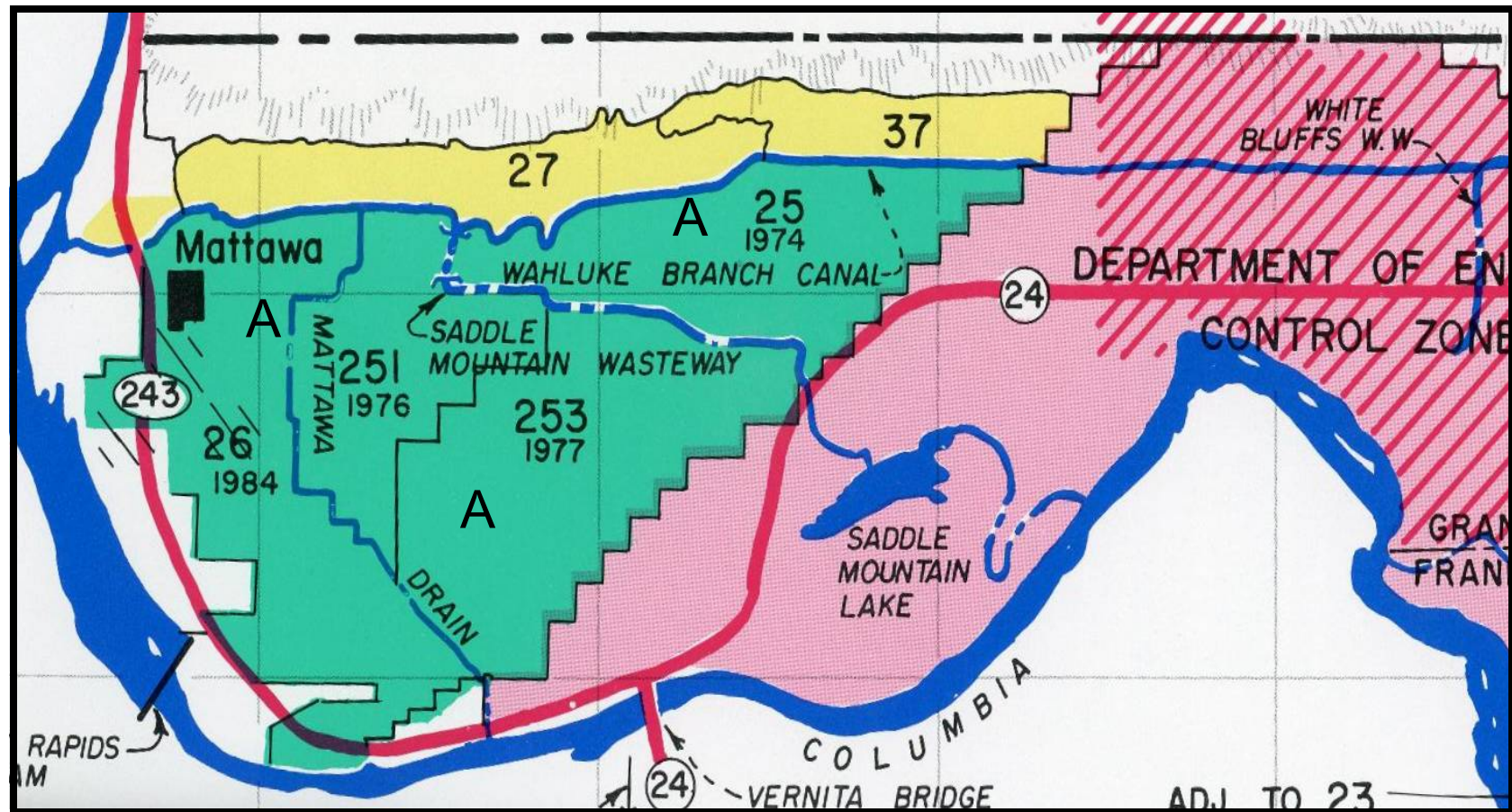
COLUMBIA BASIN PROJECT

CBP Sub-Area Map 4



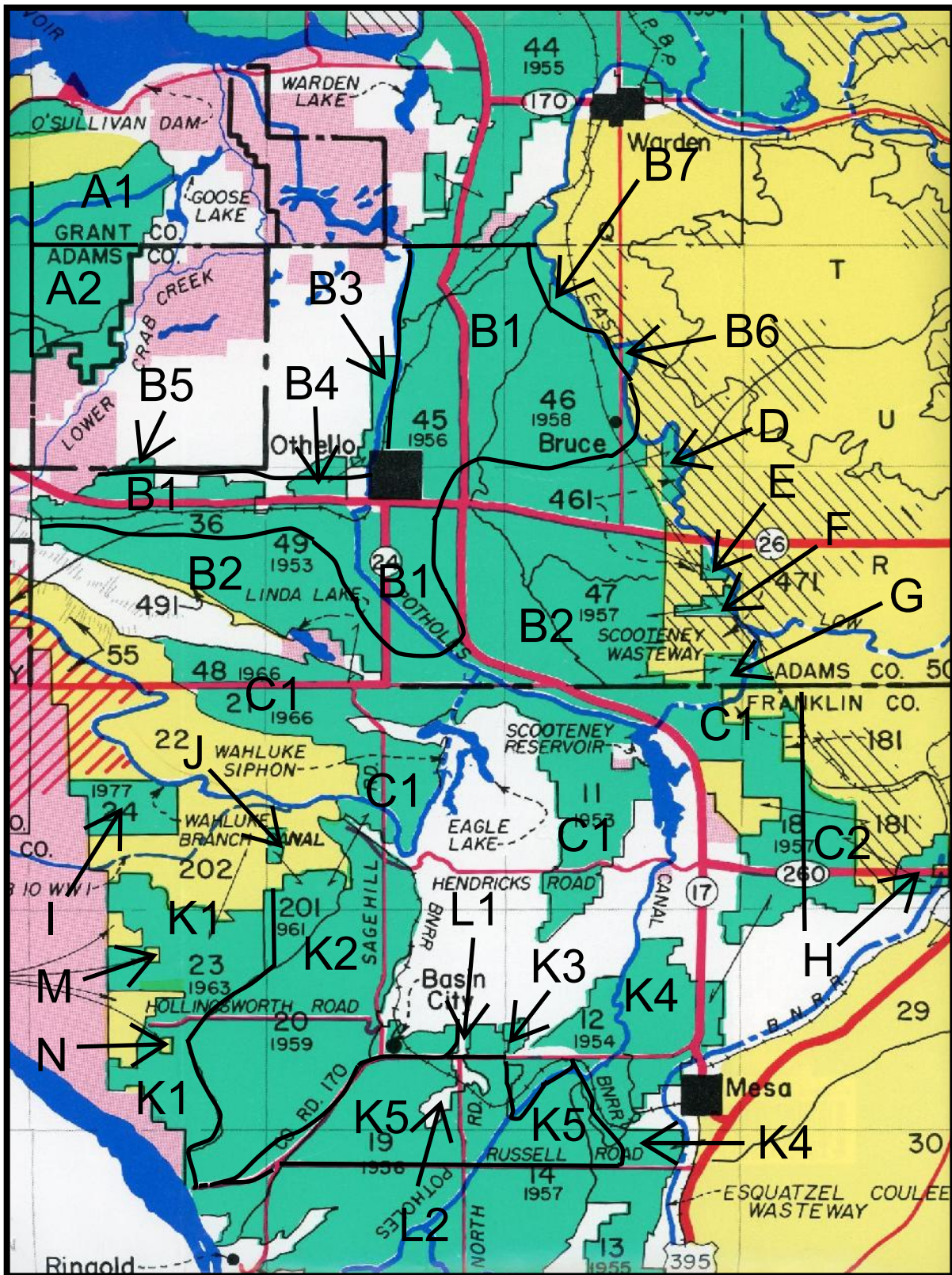
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CBP Sub-Area Map 5



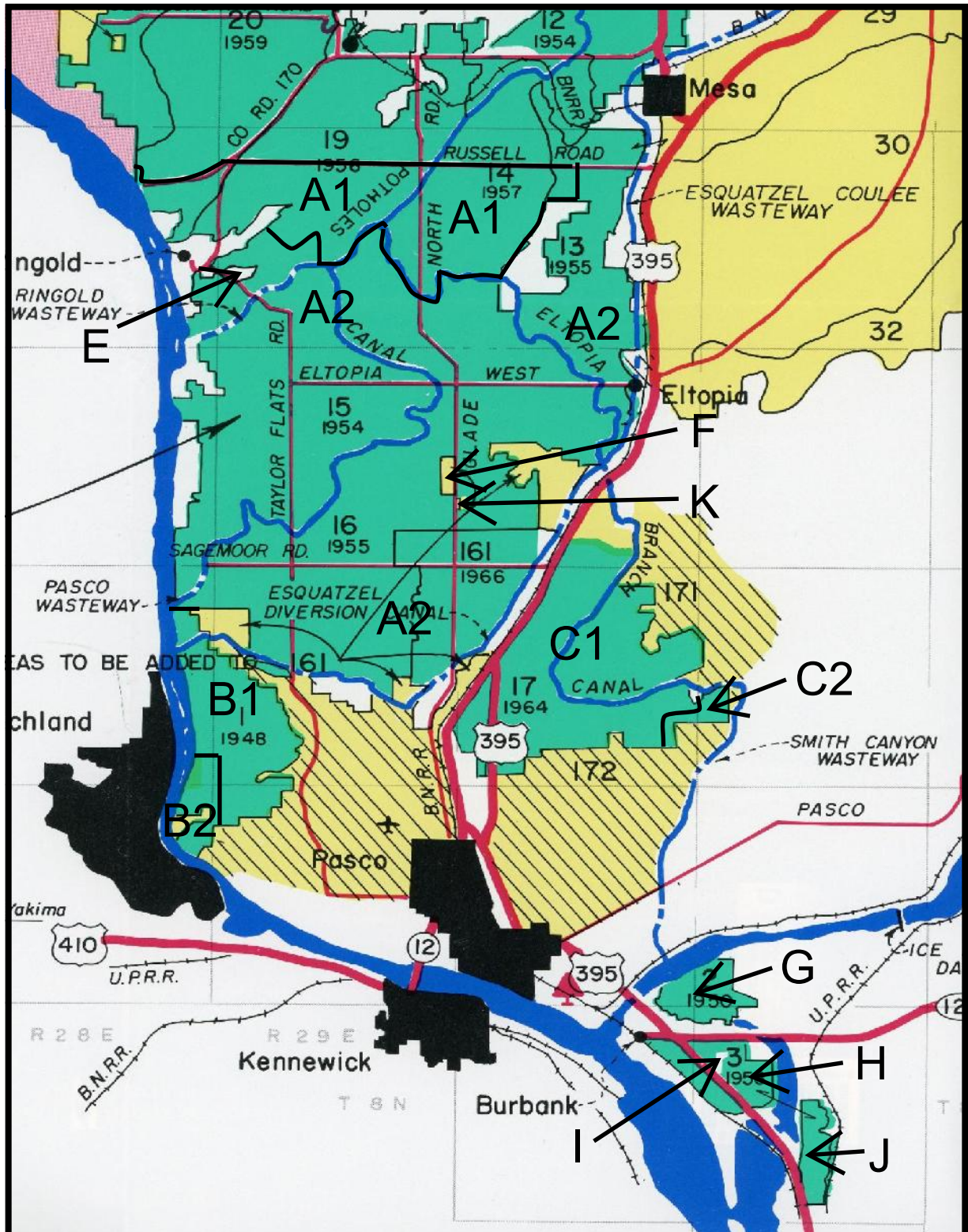
COLUMBIA BASIN PROJECT

CBP Sub-Area Map 6



COLUMBIA BASIN PROJECT

CBP Sub-Area Map 7



USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

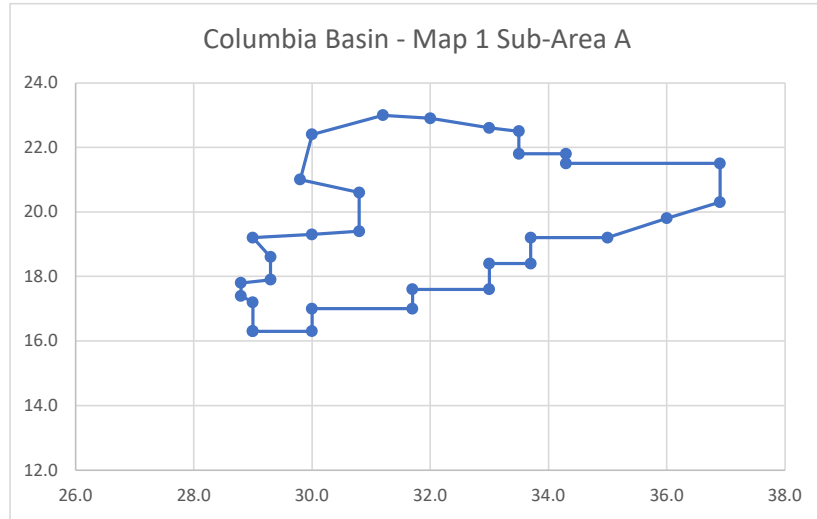
Columbia Basin Project Area Calculations

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Total Area	27.57
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Columbia Basin - Map 1 Sub-Area A

Coordinate Number	X Coordinate	Y Coordinate
1	29.0	16.3
2	30.0	16.3
3	30.0	17.0
4	31.7	17.0
5	31.7	17.6
6	33.0	17.6
7	33.0	18.4
8	33.7	18.4
9	33.7	19.2
10	35.0	19.2
11	36.0	19.8
12	36.9	20.3
13	36.9	21.5
14	34.3	21.5
15	34.3	21.8
16	33.5	21.8
17	33.5	22.5
18	33.0	22.6
19	32.0	22.9
20	31.2	23.0
21	30.0	22.4
22	29.8	21.0
23	30.8	20.6
24	30.8	19.4
25	30.0	19.3
26	29.0	19.2
27	29.3	18.6
28	29.3	17.9
29	28.8	17.8
30	28.8	17.4
31	29.0	17.2
32	29.0	16.3



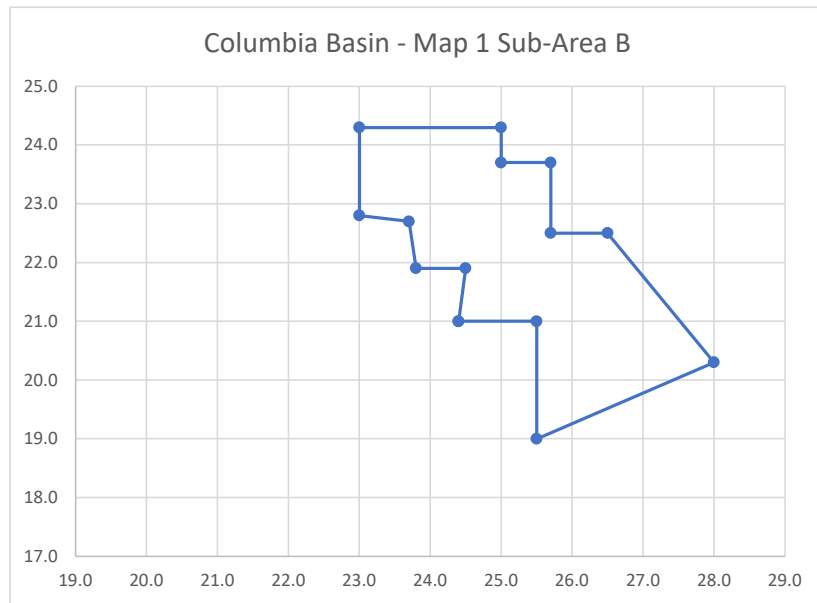
USBR/Klamath Project - AWIA Power Cost Benchmark Analysis Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area 11.73

Columbia Basin - Map 1 Sub-Area B

Coordinate Number	X Coordinate	Y Coordinate
1	24.4	21.0
2	25.5	21.0
3	25.5	19.0
4	28.0	20.3
5	26.5	22.5
6	25.7	22.5
7	25.7	23.7
8	25.0	23.7
9	25.0	24.3
10	23.0	24.3
11	23.0	22.8
12	23.7	22.7
13	23.8	21.9
14	24.5	21.9
15	24.4	21.0



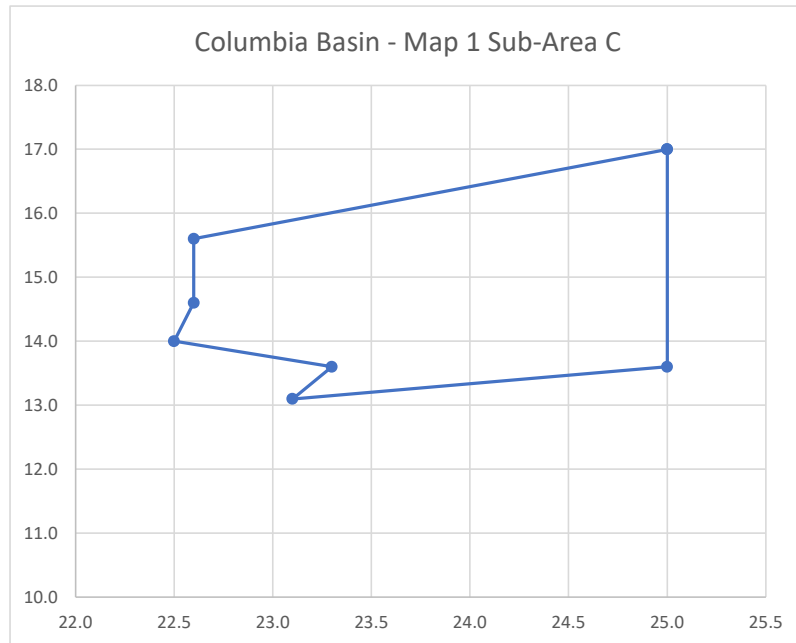
USBR/Klamath Project - AWIA Power Cost Benchmark Analysis
Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area 6.82

Columbia Basin - Map 1 Sub-Area C

Coordinate Number	X Coordinate	Y Coordinate
1	25.0	17.0
2	22.6	15.6
3	22.6	14.6
4	22.5	14.0
5	23.3	13.6
6	23.1	13.1
7	25.0	13.6
8	25.0	17.0



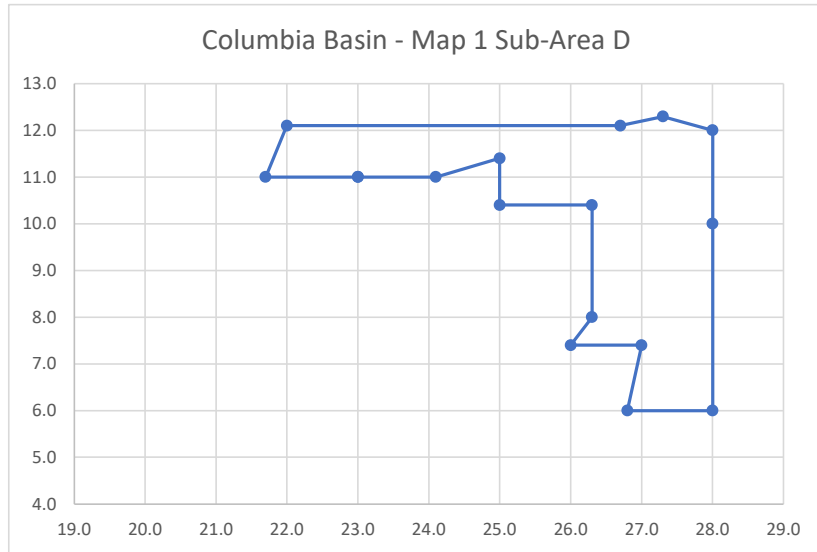
USBR/Klamath Project - AWIA Power Cost Benchmark Analysis **Columbia Basin Irrigation Project Electric Utility Load Ratio Summary**

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Total Area	15.21
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Columbia Basin - Map 1 Sub-Area D

Coordinate Number	X Coordinate	Y Coordinate
1	23.0	11.0
2	24.1	11.0
3	25.0	11.4
4	25.0	10.4
5	26.3	10.4
6	26.3	8.0
7	26.0	7.4
8	27.0	7.4
9	26.8	6.0
10	28.0	6.0
11	28.0	10.0
12	28.0	12.0
13	27.3	12.3
14	26.7	12.1
15	22.0	12.1
16	21.7	11.0
17	23.0	11.0



USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

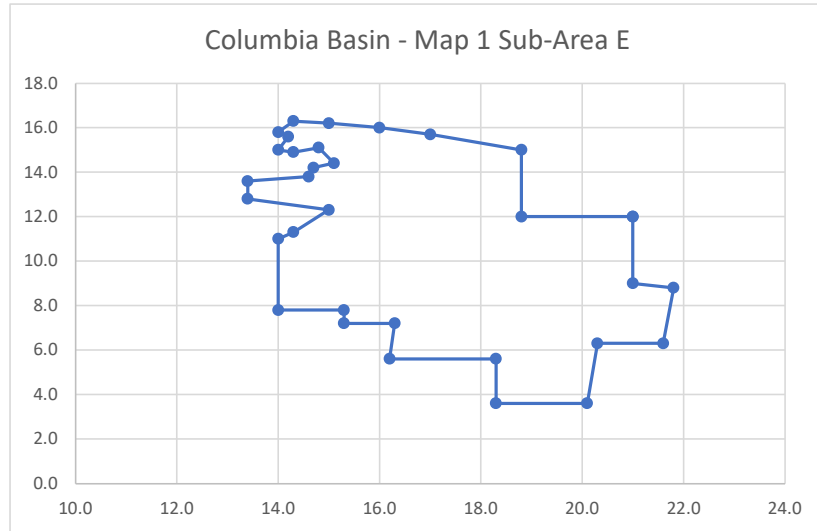
Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area	62.26
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Columbia Basin - Map 1 Sub-Area E

Coordinate Number	X Coordinate	Y Coordinate
1	21.0	12.0
2	18.8	12.0
3	18.8	15.0
4	17.0	15.7
5	16.0	16.0
6	15.0	16.2
7	14.3	16.3
8	14.0	15.8
9	14.2	15.6
10	14.0	15.0
11	14.3	14.9
12	14.8	15.1
13	15.1	14.4
14	14.7	14.2
15	14.6	13.8
16	13.4	13.6
17	13.4	12.8
18	15.0	12.3
19	14.3	11.3
20	14.0	11.0
21	14.0	7.8
22	15.3	7.8
23	15.3	7.2
24	16.3	7.2
25	16.2	5.6
26	18.3	5.6
27	18.3	3.6
28	20.1	3.6
29	20.3	6.3
30	21.6	6.3
31	21.8	8.8
32	21.0	9.0
33	21.0	12.0



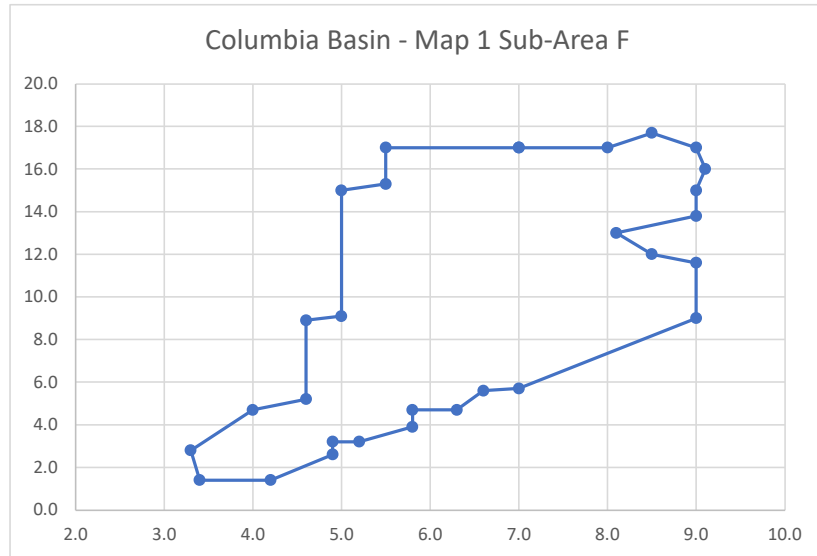
USBR/Klamath Project - AWIA Power Cost Benchmark Analysis
Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area 48.89

Columbia Basin - Map 1 Sub-Area F

Coordinate Number	X Coordinate	Y Coordinate
1	7.0	17.0
2	5.5	17.0
3	5.5	15.3
4	5.0	15.0
5	5.0	9.1
6	4.6	8.9
7	4.6	5.2
8	4.0	4.7
9	3.3	2.8
10	3.4	1.4
11	4.2	1.4
12	4.9	2.6
13	4.9	3.2
14	5.2	3.2
15	5.8	3.9
16	5.8	4.7
17	6.3	4.7
18	6.6	5.6
19	7.0	5.7
20	9.0	9.0
21	9.0	11.6
22	8.5	12.0
23	8.1	13.0
24	9.0	13.8
25	9.0	15.0
26	9.1	16.0
27	9.0	17.0
28	8.5	17.7
29	8.0	17.0
30	7.0	17.0



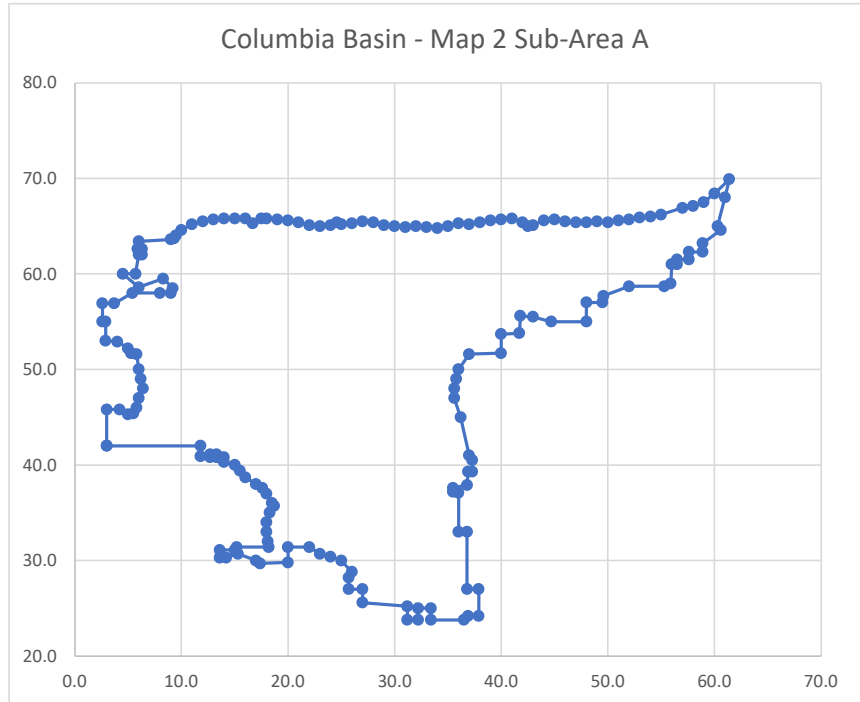
USBR/Klamath Project - AWIA Power Cost Benchmark Analysis
Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area	1,238.84
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Columbia Basin - Map 2 Sub-Area A

Coordinate Number	X Coordinate	Y Coordinate
1	3.0	42.0
2	11.8	42.0
3	11.8	40.9
4	12.7	40.8
5	12.7	41.1
6	13.3	41.1
7	13.3	40.8
8	14.0	40.8
9	14.0	40.3
10	15.0	40.0
11	15.5	39.4
12	16.0	38.7
13	17.0	38.0
14	17.6	37.6
15	18.0	37.0
16	18.5	36.0
17	18.7	35.7
18	18.3	35.0
19	18.0	34.0
20	18.0	33.0
21	18.1	32.0
22	18.2	31.4
23	15.2	31.4
24	15.0	31.1
25	13.6	31.1
26	13.6	30.3
27	14.2	30.3
28	15.3	30.7
29	17.0	30.0
30	17.4	29.7
31	20.0	29.8
32	20.0	31.4
33	22.0	31.4
34	23.0	30.7
35	24.0	30.4
36	25.0	30.0
37	26.0	28.8
38	25.7	28.2
39	25.7	27.0
40	27.0	27.0
41	27.0	25.6
42	31.2	25.2
43	31.2	23.8
44	32.2	23.8
45	32.2	25.0
46	33.4	25.0
47	33.4	23.8
48	36.5	23.8
49	36.9	24.2
50	37.9	24.2
51	37.9	27.0
52	36.8	27.0
53	36.8	33.0
54	36.0	33.0
55	36.0	37.1
56	35.5	37.2
57	35.5	37.6
58	36.8	37.9



Columbia Basin - Map 2 Sub-Area A (continued)

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59	36.9	39.3
60	37.3	39.3
61	37.3	40.5
62	37.0	41.0
63	36.2	45.0
64	35.6	47.0
65	35.6	48.0
66	35.8	49.0
67	36.0	50.0
68	37.0	51.6
69	40.0	51.7
70	40.0	53.7
71	41.7	53.8
72	41.8	55.6
73	43.0	55.5
74	44.7	55.0
75	48.0	55.0
76	48.0	57.0
77	49.5	57.0
78	49.6	57.7
79	52.0	58.7
80	55.3	58.7
81	55.9	59.0
82	56.0	61.0
83	56.5	61.0
84	56.5	61.5
85	57.6	61.5
86	57.6	62.3
87	58.9	62.3
88	58.9	63.2
89	60.6	64.6
90	60.3	65.0
91	61.0	68.0
92	61.4	69.9
93	60.0	68.4
94	59.0	67.5
95	58.0	67.1
96	57.0	66.9
97	55.0	66.2
98	54.0	66.0
99	53.0	65.9
100	52.0	65.7
101	51.0	65.6
102	50.0	65.4
103	49.0	65.5
104	48.0	65.4
105	47.0	65.4
106	46.0	65.5
107	45.0	65.7
108	44.0	65.6
109	43.0	65.1
110	42.5	65.0
111	42.0	65.4
112	41.0	65.8
113	40.0	65.7
114	39.0	65.6
115	38.0	65.4
116	37.0	65.2
117	36.0	65.3
118	35.0	65.0
119	34.0	64.8
120	33.0	64.9
121	32.0	65.0
122	31.0	64.9
123	30.0	65.0
124	29.0	65.1
125	28.0	65.4
126	27.0	65.5

Columbia Basin - Map 2 Sub-Area A (continued)

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127	26.0	65.3
128	25.0	65.2
129	24.6	65.4
130	24.0	65.1
131	23.0	65.0
132	22.0	65.1
133	21.0	65.4
134	20.0	65.6
135	19.0	65.7
136	18.0	65.8
137	17.5	65.8
138	16.7	65.3
139	16.0	65.8
140	15.0	65.8
141	14.0	65.8
142	13.0	65.7
143	12.0	65.5
144	11.0	65.2
145	10.0	64.6
146	9.5	64.0
147	9.3	63.7
148	9.0	63.6
149	6.0	63.4
150	5.9	62.6
151	6.3	62.6
152	6.3	62.0
153	6.0	62.0
154	5.7	60.0
155	4.5	60.0
156	6.0	58.6
157	8.3	59.5
158	9.2	58.5
159	9.0	58.0
160	8.0	58.0
161	5.4	58.0
162	3.7	56.9
163	2.6	56.9
164	2.6	55.0
165	2.9	55.0
166	2.9	53.0
167	4.0	52.9
168	5.0	52.2
169	5.3	51.7
170	5.8	51.6
171	6.0	50.0
172	6.2	49.0
173	6.4	48.0
174	6.0	47.0
175	5.8	46.0
176	5.5	45.4
177	5.0	45.3
178	4.2	45.8
179	3.0	45.8
180	3.0	42.0

USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

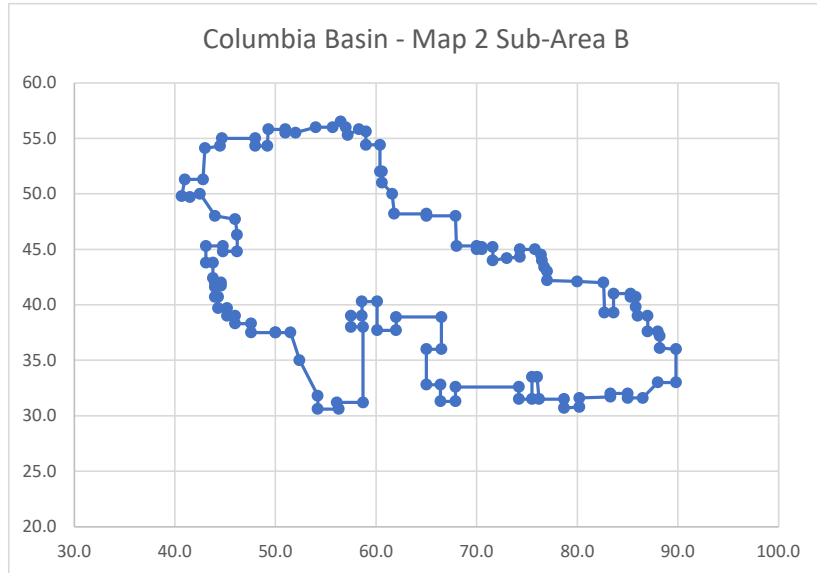
Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area 634.34

Columbia Basin - Map 2 Sub-Area B

Coordinate Number	X Coordinate	Y Coordinate
1	50.0	37.5
2	51.5	37.5
3	52.4	35.0
4	54.2	31.8
5	54.2	30.6
6	56.3	30.6
7	56.1	31.2
8	58.7	31.2
9	58.7	38.0
10	57.5	38.0
11	57.5	39.0
12	58.6	39.0
13	58.6	40.3
14	60.1	40.3
15	60.1	37.7
16	62.0	37.7
17	62.0	38.9
18	66.5	38.9
19	66.5	36.0
20	65.0	36.0
21	65.0	32.8
22	66.4	32.8
23	66.4	31.3
24	67.9	31.3
25	67.9	32.6
26	74.2	32.6
27	74.2	31.5
28	75.5	31.5
29	75.5	33.5
30	76.0	33.5
31	76.2	31.5
32	78.7	31.5
33	78.7	30.7
34	80.2	30.8
35	80.2	31.6
36	83.3	31.7
37	83.3	32.0
38	85.0	32.0
39	85.0	31.6
40	86.5	31.6
41	88.0	33.0
42	89.8	33.0
43	89.8	36.0
44	88.2	36.1
45	88.2	37.2
46	88.0	37.6
47	87.0	37.6
48	87.0	39.0
49	86.0	39.0
50	85.8	39.8
51	85.8	40.7
52	85.3	40.7
53	85.3	41.0
54	83.6	41.0
55	83.6	39.3
56	82.7	39.3
57	82.6	42.0
58	80.0	42.1



Columbia Basin - Map 2 Sub-Area B (continued)

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59	77.0	42.2
60	77.0	43.0
61	76.7	43.4
62	76.5	44.0
63	76.4	44.5
64	75.8	45.0
65	74.3	45.0
66	74.3	44.3
67	73.0	44.2
68	71.6	44.0
69	71.6	45.2
70	70.5	45.2
71	70.5	45.0
72	70.0	45.0
73	70.0	45.3
74	68.0	45.3
75	67.9	48.0
76	65.0	48.0
77	65.0	48.2
78	61.8	48.2
79	61.6	50.0
80	60.6	51.0
81	60.6	52.0
82	60.4	52.0
83	60.4	54.4
84	59.0	54.4
85	59.0	55.6
86	58.3	55.8
87	57.2	55.3
88	57.0	56.0
89	56.5	56.5
90	55.7	56.0
91	54.0	56.0
92	52.0	55.5
93	51.0	55.5
94	51.0	55.8
95	49.3	55.8
96	49.2	54.3
97	48.0	54.3
98	48.0	55.0
99	44.7	55.0
100	44.5	54.3
101	43.0	54.1
102	42.8	51.3
103	41.0	51.3
104	40.7	49.8
105	41.5	49.7
106	42.5	50.0
107	44.0	48.0
108	46.0	47.7
109	46.2	46.3
110	46.2	44.8
111	44.8	44.8
112	44.8	45.3
113	43.1	45.3
114	43.1	43.8
115	43.8	43.8
116	43.8	42.4
117	44.0	42.0
118	44.6	42.0
119	44.6	41.7
120	44.0	41.6
121	44.0	40.7
122	44.3	40.7
123	44.3	39.7
124	45.2	39.7
125	45.2	39.0
126	46.0	39.0

127	46.0	38.3	Columbia Basin - Map 2 Sub-Area B (continued)
128	47.6	38.3	
129	47.6	37.5	
130	50.0	37.5	

USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

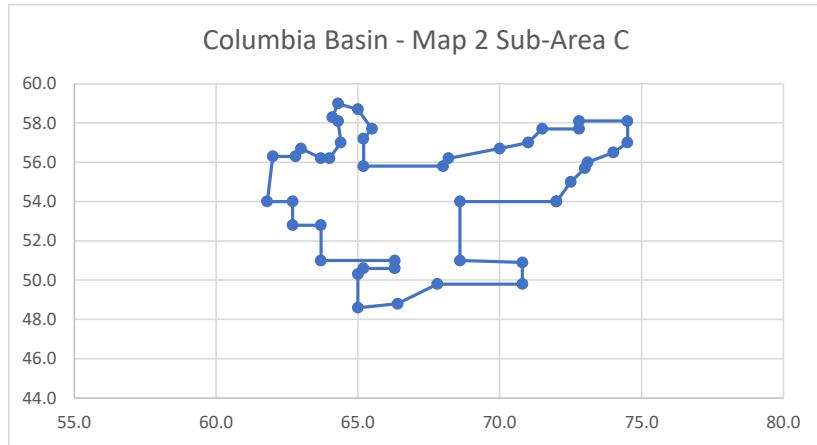
Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area 56.26

Columbia Basin - Map 2 Sub-Area C

Coordinate Number	X Coordinate	Y Coordinate
1	72.0	54.0
2	72.5	55.0
3	73.0	55.7
4	73.1	56.0
5	74.0	56.5
6	74.5	57.0
7	74.5	58.1
8	72.8	58.1
9	72.8	57.7
10	71.5	57.7
11	71.0	57.0
12	70.0	56.7
13	68.2	56.2
14	68.0	55.8
15	65.2	55.8
16	65.2	57.2
17	65.5	57.7
18	65.0	58.7
19	64.3	59.0
20	64.1	58.3
21	64.3	58.1
22	64.4	57.0
23	64.0	56.2
24	63.7	56.2
25	63.0	56.7
26	62.8	56.3
27	62.0	56.3
28	61.8	54.0
29	62.7	54.0
30	62.7	52.8
31	63.7	52.8
32	63.7	51.0
33	66.3	51.0
34	66.3	50.6
35	65.2	50.6
36	65.0	50.3
37	65.0	48.6
38	66.4	48.8
39	67.8	49.8
40	70.8	49.8
41	70.8	50.9
42	68.6	51.0
43	68.6	54.0
44	72.0	54.0



USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

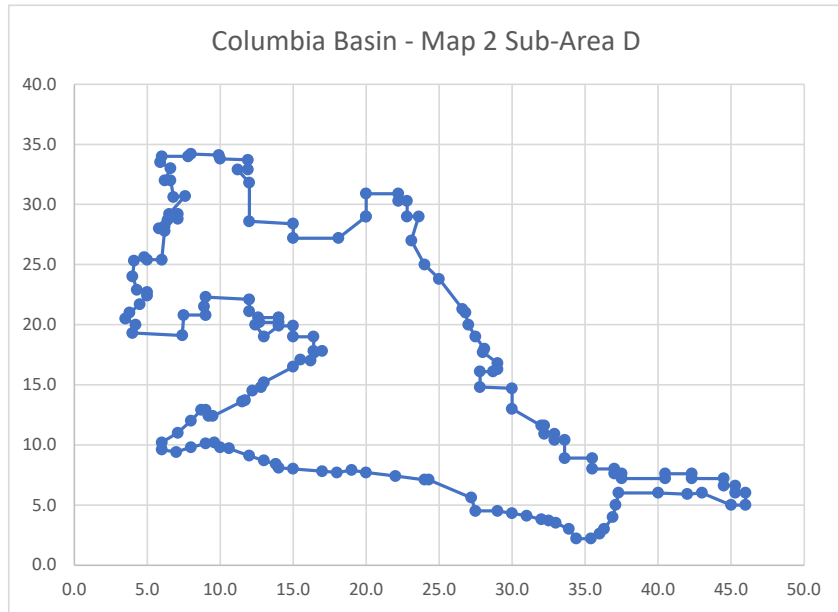
Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area 476.11

Columbia Basin - Map 2 Sub-Area D

Coordinate Number	X Coordinate	Y Coordinate
1	20.0	29.0
2	18.1	27.2
3	15.0	27.2
4	15.0	28.4
5	12.0	28.6
6	12.0	31.8
7	11.2	32.9
8	11.9	32.9
9	11.9	33.7
10	10.0	33.8
11	9.9	34.1
12	8.0	34.2
13	7.8	34.0
14	6.0	34.0
15	5.9	33.5
16	6.6	33.0
17	6.2	32.0
18	6.6	32.0
19	6.8	30.6
20	7.6	30.7
21	6.5	29.2
22	7.1	29.2
23	7.1	28.8
24	6.4	28.7
25	6.2	28.2
26	5.8	28.0
27	6.2	27.8
28	6.0	25.4
29	5.0	25.4
30	4.8	25.6
31	4.1	25.3
32	4.0	24.0
33	4.3	22.9
34	5.0	22.7
35	5.0	22.4
36	4.5	21.7
37	3.8	21.0
38	3.5	20.5
39	4.2	20.0
40	4.0	19.3
41	7.4	19.1
42	7.5	20.8
43	9.0	20.8
44	8.9	21.5
45	9.0	22.3
46	12.0	22.1
47	12.0	21.1
48	12.6	20.6
49	14.0	20.6
50	14.0	20.2
51	12.7	20.2
52	12.4	20.0
53	13.0	19.0
54	14.0	19.9
55	15.0	19.9
56	15.0	19.0
57	16.4	19.0
58	16.4	17.8



Columbia Basin - Map 2 Sub-Area D (continued)

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59	17.0	17.8
60	16.2	17.0
61	15.5	17.1
62	15.0	16.5
63	13.0	15.2
64	12.8	14.8
65	12.2	14.5
66	11.7	13.7
67	11.5	13.6
68	9.5	12.4
69	9.2	12.4
70	9.0	12.9
71	8.7	12.9
72	8.0	12.0
73	7.1	11.0
74	6.0	10.2
75	6.0	9.6
76	7.0	9.4
77	8.0	9.8
78	9.0	10.1
79	9.6	10.2
80	10.0	9.8
81	10.6	9.7
82	12.0	9.1
83	13.0	8.7
84	13.8	8.4
85	14.0	8.1
86	15.0	8.0
87	17.0	7.8
88	18.0	7.7
89	19.0	7.9
90	20.0	7.7
91	22.0	7.4
92	24.0	7.1
93	24.3	7.1
94	27.2	5.6
95	27.5	4.5
96	29.0	4.5
97	30.0	4.3
98	31.0	4.1
99	32.0	3.8
100	32.5	3.7
101	33.0	3.5
102	33.9	3.0
103	34.4	2.2
104	35.4	2.2
105	36.0	2.6
106	36.3	3.0
107	36.9	4.0
108	37.1	5.0
109	37.3	6.0
110	40.0	6.0
111	42.0	5.9
112	43.0	6.0
113	45.0	5.0
114	46.0	5.0
115	46.0	6.0
116	45.3	6.0
117	45.3	6.6
118	44.5	6.6
119	44.5	7.2
120	42.3	7.2
121	42.3	7.6
122	40.5	7.6
123	40.5	7.2
124	37.5	7.2
125	37.5	7.6
126	37.0	7.6

127	37.0	8.0
128	35.5	8.0
129	35.5	8.9
130	33.6	8.9
131	33.6	10.4
132	32.9	10.4
133	32.9	10.9
134	32.2	10.9
135	32.2	11.6
136	32.0	11.6
137	30.0	13.0
138	30.0	14.7
139	27.8	14.8
140	27.8	16.1
141	28.7	16.1
142	29.0	16.3
143	29.0	16.8
144	28.0	17.7
145	28.1	18.0
146	27.5	19.0
147	27.0	20.0
148	26.8	21.0
149	26.6	21.3
150	25.0	23.8
151	24.0	25.0
152	23.1	27.0
153	23.6	29.0
154	22.8	29.0
155	22.8	30.3
156	22.2	30.3
157	22.2	30.9
158	20.0	30.9
159	20.0	29.0

Columbia Basin - Map 2 Sub-Area D (continued)

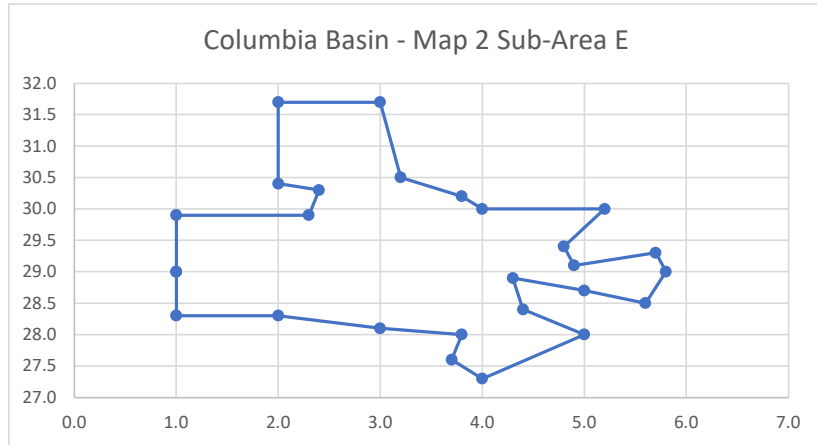
USBR/Klamath Project - AWIA Power Cost Benchmark Analysis **Columbia Basin Irrigation Project Electric Utility Load Ratio Summary**

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Total Area	9.88
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Columbia Basin - Map 2 Sub-Area E

Coordinate Number	X Coordinate	Y Coordinate
1	1.0	29.0
2	1.0	28.3
3	2.0	28.3
4	3.0	28.1
5	3.8	28.0
6	3.7	27.6
7	4.0	27.3
8	5.0	28.0
9	4.4	28.4
10	4.3	28.9
11	5.0	28.7
12	5.6	28.5
13	5.8	29.0
14	5.7	29.3
15	4.9	29.1
16	4.8	29.4
17	5.2	30.0
18	4.0	30.0
19	3.8	30.2
20	3.2	30.5
21	3.0	31.7
22	2.0	31.7
23	2.0	30.4
24	2.4	30.3
25	2.3	29.9
26	1.0	29.9
27	1.0	29.0



USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

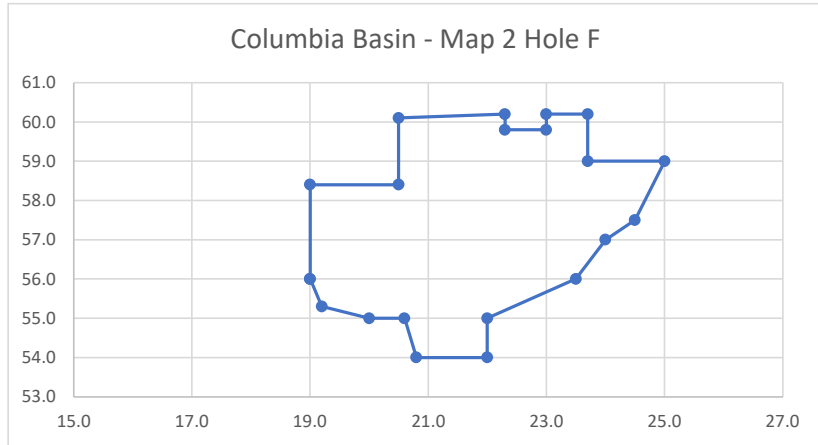
Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area	23.37
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Columbia Basin - Map 2 Hole F

Coordinate Number	X Coordinate	Y Coordinate
1	19.0	56.0
2	19.2	55.3
3	20.0	55.0
4	20.6	55.0
5	20.8	54.0
6	22.0	54.0
7	22.0	55.0
8	23.5	56.0
9	24.0	57.0
10	24.5	57.5
11	25.0	59.0
12	23.7	59.0
13	23.7	60.2
14	23.0	60.2
15	23.0	59.8
16	22.3	59.8
17	22.3	60.2
18	20.5	60.1
19	20.5	58.4
20	19.0	58.4
21	19.0	56.0



USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

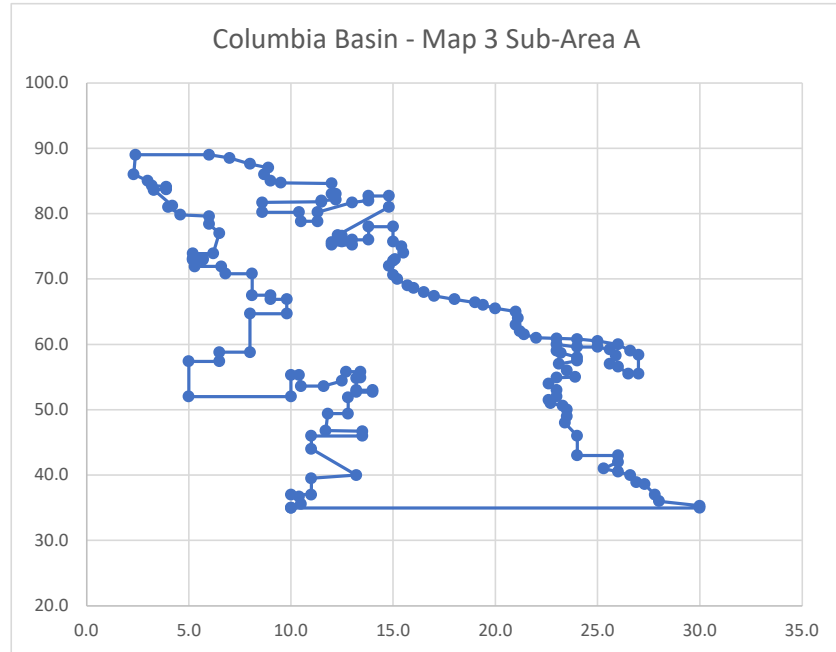
Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area 624.24

Columbia Basin - Map 3 Sub-Area A

Coordinate Number	X Coordinate	Y Coordinate
1	10.0	35.0
2	30.0	35.0
3	30.0	35.3
4	28.0	36.0
5	27.8	37.0
6	27.3	38.6
7	26.9	38.9
8	26.6	40.0
9	26.0	40.5
10	25.3	41.0
11	26.0	42.0
12	26.0	43.0
13	24.0	43.0
14	24.0	46.0
15	23.4	48.0
16	23.5	49.0
17	23.5	50.0
18	23.3	50.6
19	22.7	51.0
20	22.6	51.5
21	23.0	52.0
22	23.0	53.0
23	22.6	54.0
24	23.0	54.9
25	23.9	55.0
26	23.5	56.0
27	23.1	57.0
28	24.0	57.5
29	24.0	58.0
30	23.2	58.7
31	23.0	59.0
32	23.0	60.0
33	24.0	59.6
34	25.0	59.6
35	25.6	59.2
36	25.9	58.3
37	25.6	57.0
38	26.0	56.6
39	26.5	55.5
40	27.0	55.5
41	27.0	58.4
42	26.6	59.0
43	26.0	60.0
44	25.0	60.5
45	24.0	60.8
46	23.0	60.9
47	22.0	61.0
48	21.4	61.5
49	21.2	62.0
50	21.0	63.0
51	21.1	64.0
52	21.0	65.0
53	20.0	65.5
54	19.4	66.0
55	19.0	66.4
56	18.0	66.9
57	17.0	67.4
58	16.5	68.0



Columbia Basin - Map 3 Sub-Area A (continued)

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59	16.0	68.6
60	15.7	69.0
61	15.2	70.0
62	15.0	70.6
63	14.8	72.0
64	15.0	72.8
65	15.1	73.0
66	15.5	74.0
67	15.4	75.0
68	15.0	75.7
69	15.0	78.0
70	13.8	78.0
71	13.8	76.0
72	13.0	76.0
73	13.0	75.2
74	12.0	75.2
75	12.0	75.6
76	12.5	75.7
77	12.5	76.6
78	12.3	76.7
79	14.8	81.0
80	14.8	82.7
81	13.8	82.7
82	13.8	82.0
83	13.0	81.7
84	11.3	80.2
85	11.3	78.8
86	10.5	78.8
87	10.4	80.2
88	8.6	80.2
89	8.6	81.7
90	11.5	81.8
91	11.5	82.0
92	12.2	82.1
93	12.2	83.0
94	12.0	83.0
95	12.0	84.6
96	9.5	84.7
97	9.0	85.0
98	8.7	86.0
99	8.9	87.0
100	8.0	87.6
101	7.0	88.5
102	6.0	89.0
103	2.4	89.0
104	2.3	86.0
105	3.0	85.0
106	3.2	84.3
107	3.9	84.1
108	3.9	83.7
109	3.3	83.6
110	4.2	81.2
111	4.0	81.0
112	4.6	79.8
113	6.0	79.6
114	6.0	78.4
115	6.5	77.0
116	6.2	73.9
117	5.2	73.9
118	5.2	73.1
119	5.7	73.1
120	5.7	72.9
121	5.2	72.9
122	5.3	71.9
123	6.6	71.9
124	6.8	70.8
125	8.1	70.8
126	8.1	67.5

127	9.0	67.5
128	9.0	66.9
129	9.8	66.9
130	9.8	64.7
131	8.0	64.7
132	8.0	58.8
133	6.5	58.8
134	6.5	57.4
135	5.0	57.4
136	5.0	52.0
137	10.0	52.0
138	10.0	55.3
139	10.4	55.3
140	10.5	53.6
141	11.6	53.6
142	12.5	54.4
143	12.7	55.8
144	13.4	55.8
145	13.4	54.9
146	13.2	54.8
147	13.2	53.0
148	14.0	53.0
149	14.0	52.7
150	13.2	52.7
151	12.8	51.9
152	12.8	49.4
153	11.8	49.4
154	11.7	46.8
155	13.5	46.7
156	13.5	46.0
157	11.0	46.0
158	11.0	44.0
159	13.2	40.0
160	11.0	39.5
161	11.0	37.0
162	10.0	37.0
163	10.4	36.7
164	10.5	35.6
165	10.0	35.0

Columbia Basin - Map 3 Sub-Area A (continued)

USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

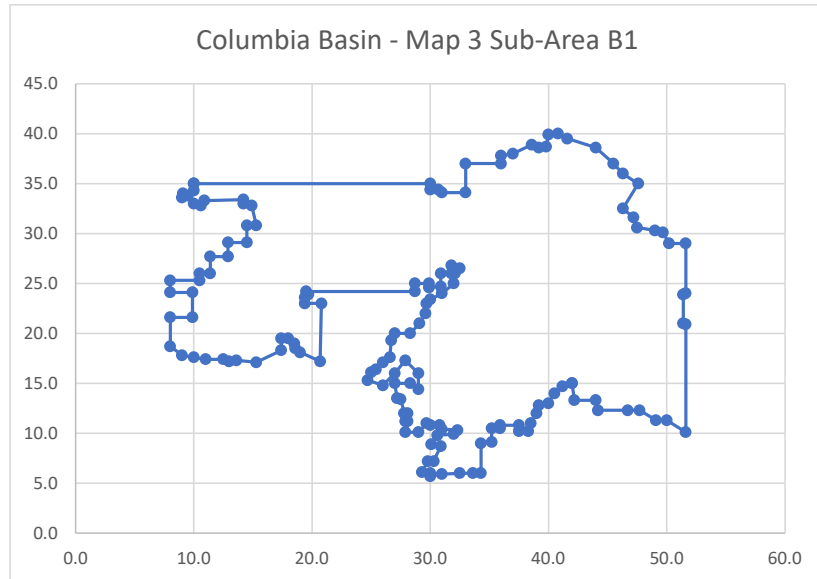
Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area 831.93

Columbia Basin - Map 3 Sub-Area B1

Coordinate Number	X Coordinate	Y Coordinate
1	10.0	35.0
2	10.0	34.3
3	9.1	34.0
4	9.0	33.6
5	9.5	33.8
6	10.0	33.0
7	10.6	32.8
8	10.9	33.3
9	14.2	33.4
10	14.2	33.0
11	14.9	32.8
12	15.3	30.8
13	14.5	30.8
14	14.5	29.1
15	12.9	29.1
16	12.9	27.7
17	11.4	27.7
18	11.4	26.0
19	10.5	26.0
20	10.5	25.3
21	8.0	25.3
22	8.0	24.1
23	9.9	24.1
24	9.9	21.6
25	8.0	21.6
26	8.0	18.7
27	9.0	17.8
28	10.0	17.6
29	11.0	17.4
30	12.5	17.4
31	13.0	17.2
32	13.6	17.3
33	15.3	17.1
34	17.4	18.3
35	17.4	19.5
36	18.0	19.5
37	18.5	19.0
38	18.6	18.5
39	19.0	18.1
40	20.7	17.2
41	20.8	23.0
42	19.4	23.0
43	19.4	23.6
44	19.7	23.9
45	19.5	24.2
46	28.7	24.2
47	28.7	25.0
48	29.9	25.0
49	29.9	24.6
50	30.9	24.7
51	30.9	26.0
52	31.8	26.0
53	31.8	26.8
54	32.5	26.5
55	32.1	26.0
56	32.0	25.0
57	31.0	24.0
58	30.0	23.4



59	29.7	23.0
60	29.6	22.0
61	29.1	21.0
62	28.3	20.0
63	27.0	20.0
64	26.7	19.3
65	26.6	17.6
66	26.0	17.1
67	25.4	16.4
68	25.0	16.1
69	24.7	15.3
70	26.0	14.8
71	27.0	16.0
72	27.9	17.3
73	29.0	16.0
74	29.0	14.4
75	28.3	15.0
76	27.0	15.0
77	27.2	13.5
78	27.5	13.4
79	27.8	12.0
80	28.1	12.0
81	28.1	11.2
82	27.9	11.2
83	27.9	10.1
84	29.0	10.1
85	29.7	11.0
86	30.0	10.8
87	30.8	10.8
88	31.0	10.4
89	32.3	10.3
90	32.0	9.9
91	30.6	9.8
92	30.1	8.9
93	30.9	8.7
94	30.3	7.2
95	29.8	7.2
96	29.3	6.1
97	30.0	6.0
98	30.0	5.7
99	31.0	5.9
100	32.5	6.0
101	33.6	6.0
102	34.3	6.0
103	34.3	9.0
104	35.2	9.1
105	35.2	10.5
106	35.9	10.5
107	35.9	10.8
108	37.5	10.8
109	37.5	10.2
110	38.3	10.2
111	38.5	11.0
112	39.0	12.0
113	39.2	12.8
114	40.0	13.0
115	40.5	14.0
116	41.2	14.7
117	42.0	15.0
118	42.0	15.0
119	42.2	13.3
120	44.0	13.3
121	44.2	12.3
122	46.7	12.3
123	47.7	12.3
124	49.1	11.3
125	50.0	11.3
126	51.6	10.1

Columbia Basin - Map 3 Sub-Area B1 (continued)

127	51.6	20.9
128	51.4	21.0
129	51.4	23.9
130	51.6	24.0
131	51.6	29.0
132	50.2	29.0
133	49.7	30.1
134	49.0	30.3
135	47.5	30.6
136	47.2	31.6
137	46.3	32.5
138	47.6	35.0
139	46.3	36.0
140	45.5	37.0
141	44.0	38.6
142	41.6	39.5
143	40.8	40.0
144	40.0	39.9
145	39.8	38.7
146	39.2	38.6
147	38.6	38.9
148	37.0	38.0
149	36.0	37.8
150	36.0	37.0
151	33.0	37.0
152	33.0	34.1
153	31.0	34.1
154	30.7	34.4
155	30.0	34.4
156	30.0	35.0
157	10.0	35.0

Columbia Basin - Map 3 Sub-Area B1 (continued)

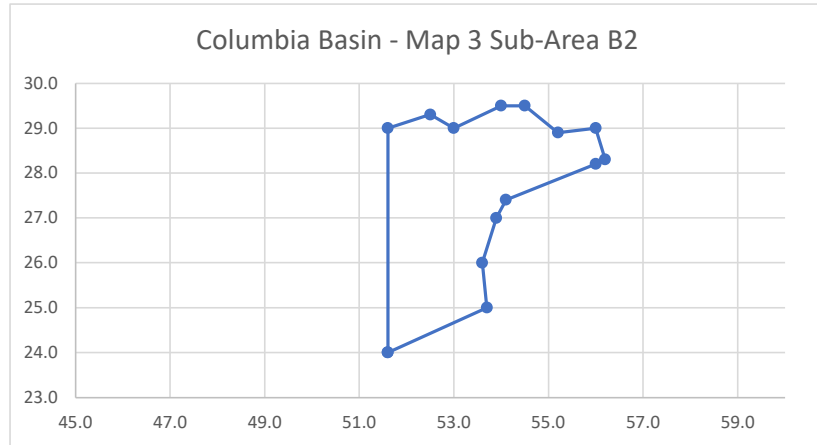
USBR/Klamath Project - AWIA Power Cost Benchmark Analysis Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area 13.38

Columbia Basin - Map 3 Sub-Area B2

Coordinate Number	X Coordinate	Y Coordinate
1	51.6	24.0
2	53.7	25.0
3	53.6	26.0
4	53.9	27.0
5	54.1	27.4
6	56.0	28.2
7	56.2	28.3
8	56.0	29.0
9	55.2	28.9
10	54.5	29.5
11	54.0	29.5
12	53.0	29.0
13	52.5	29.3
14	51.6	29.0
15	51.6	24.0



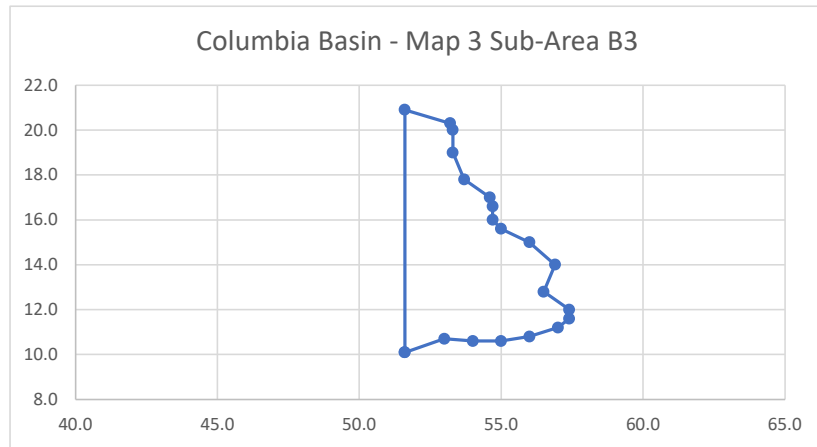
USBR/Klamath Project - AWIA Power Cost Benchmark Analysis Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area	36.49
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Columbia Basin - Map 3 Sub-Area B3

Coordinate Number	X Coordinate	Y Coordinate
1	51.6	10.1
2	53.0	10.7
3	54.0	10.6
4	55.0	10.6
5	56.0	10.8
6	57.0	11.2
7	57.4	11.6
8	57.4	12.0
9	56.5	12.8
10	56.9	14.0
11	56.0	15.0
12	55.0	15.6
13	54.7	16.0
14	54.7	16.6
15	54.6	17.0
16	53.7	17.8
17	53.3	19.0
18	53.3	20.0
19	53.2	20.3
20	51.6	20.9
21	51.6	10.1



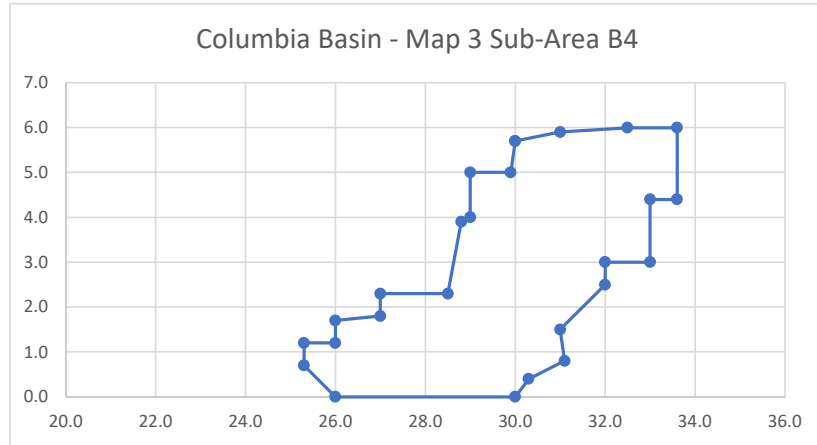
USBR/Klamath Project - AWIA Power Cost Benchmark Analysis **Columbia Basin Irrigation Project Electric Utility Load Ratio Summary**

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Total Area	25.81
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Columbia Basin - Map 3 Sub-Area B4

Coordinate Number	X Coordinate	Y Coordinate
1	30.0	5.7
2	29.9	5.0
3	29.0	5.0
4	29.0	4.0
5	28.8	3.9
6	28.5	2.3
7	27.0	2.3
8	27.0	1.8
9	26.0	1.7
10	26.0	1.2
11	25.3	1.2
12	25.3	0.7
13	26.0	0.0
14	30.0	0.0
15	30.3	0.4
16	31.1	0.8
17	31.0	1.5
18	32.0	2.5
19	32.0	3.0
20	33.0	3.0
21	33.0	4.4
22	33.6	4.4
23	33.6	6.0
24	32.5	6.0
25	31.0	5.9
26	30.0	5.7



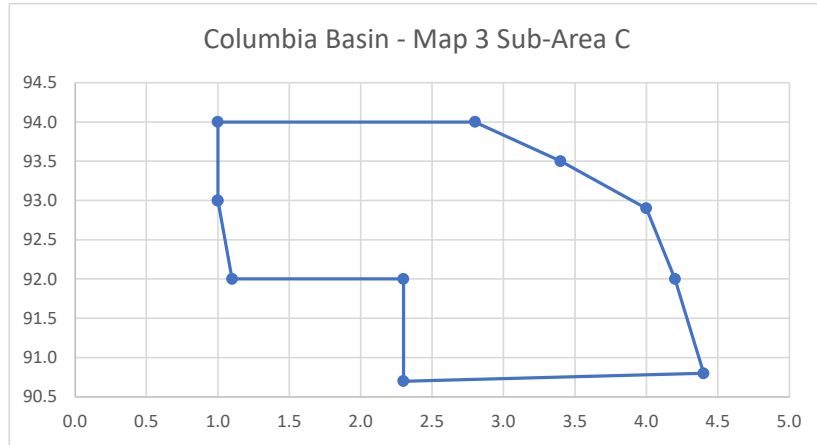
USBR/Klamath Project - AWIA Power Cost Benchmark Analysis
Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area	7.91
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Columbia Basin - Map 3 Sub-Area C

Coordinate Number	X Coordinate	Y Coordinate
1	1.0	93.0
2	1.1	92.0
3	2.3	92.0
4	2.3	90.7
5	4.4	90.8
6	4.2	92.0
7	4.0	92.9
8	3.4	93.5
9	2.8	94.0
10	1.0	94.0
11	1.0	93.0



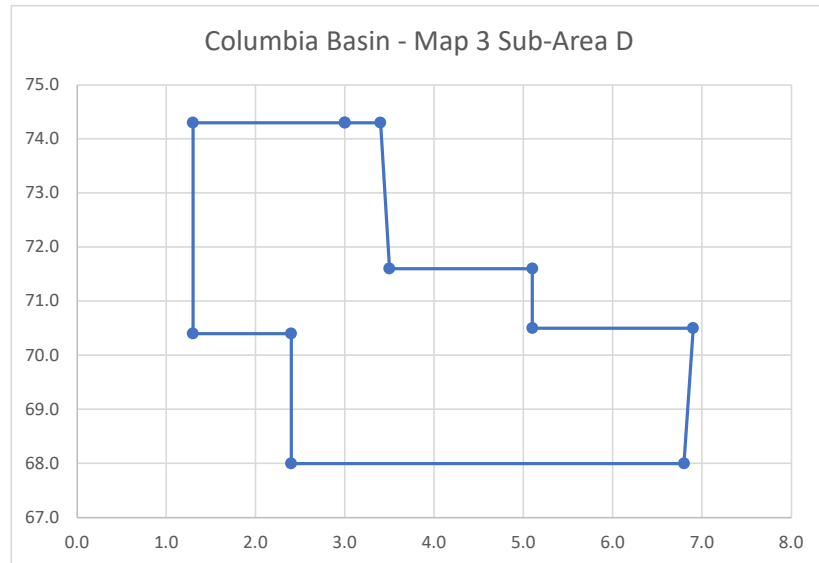
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Total Area 21.22

Columbia Basin - Map 3 Sub-Area D

Coordinate Number	X Coordinate	Y Coordinate
1	3.0	74.3
2	1.3	74.3
3	1.3	70.4
4	2.4	70.4
5	2.4	68.0
6	6.8	68.0
7	6.9	70.5
8	5.1	70.5
9	5.1	71.6
10	3.5	71.6
11	3.4	74.3
12	3.0	74.3



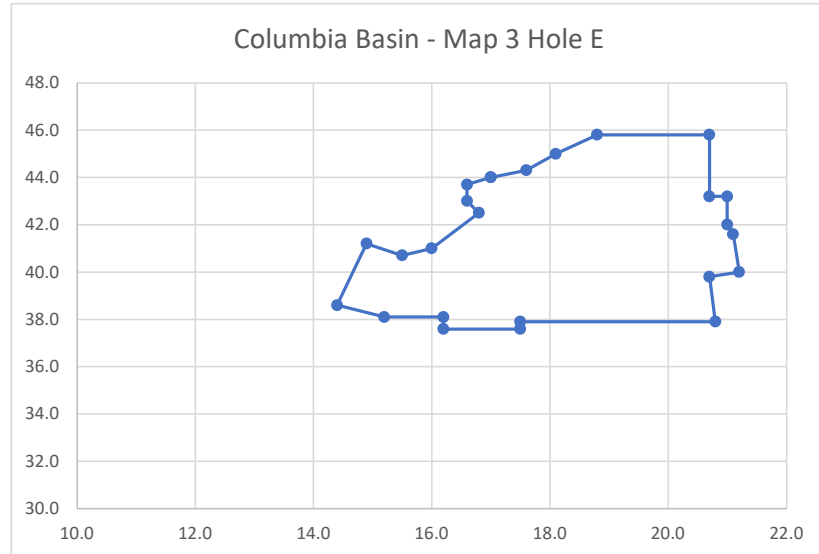
USBR/Klamath Project - AWIA Power Cost Benchmark Analysis Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area	37.38
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Columbia Basin - Map 3 Hole E

Coordinate Number	X Coordinate	Y Coordinate
1	17.0	44.0
2	16.6	43.7
3	16.6	43.0
4	16.8	42.5
5	16.0	41.0
6	15.5	40.7
7	14.9	41.2
8	14.4	38.6
9	15.2	38.1
10	16.2	38.1
11	16.2	37.6
12	17.5	37.6
13	17.5	37.9
14	20.8	37.9
15	20.7	39.8
16	21.2	40.0
17	21.1	41.6
18	21.0	42.0
19	21.0	43.2
20	20.7	43.2
21	20.7	45.8
22	18.8	45.8
23	18.1	45.0
24	17.6	44.3
25	17.0	44.0



USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

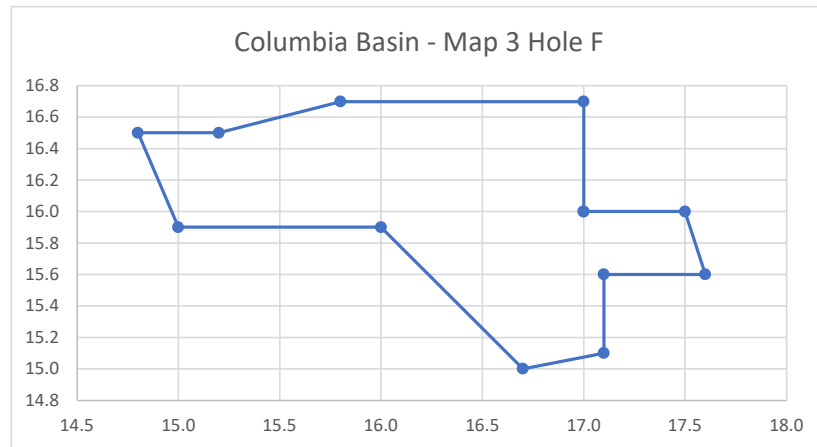
Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area	2.41
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Columbia Basin - Map 3 Hole F

Coordinate Number	X Coordinate	Y Coordinate
1	17.0	16.0
2	17.0	16.7
3	15.8	16.7
4	15.2	16.5
5	14.8	16.5
6	15.0	15.9
7	16.0	15.9
8	16.7	15.0
9	17.1	15.1
10	17.1	15.6
11	17.6	15.6
12	17.5	16.0
13	17.0	16.0



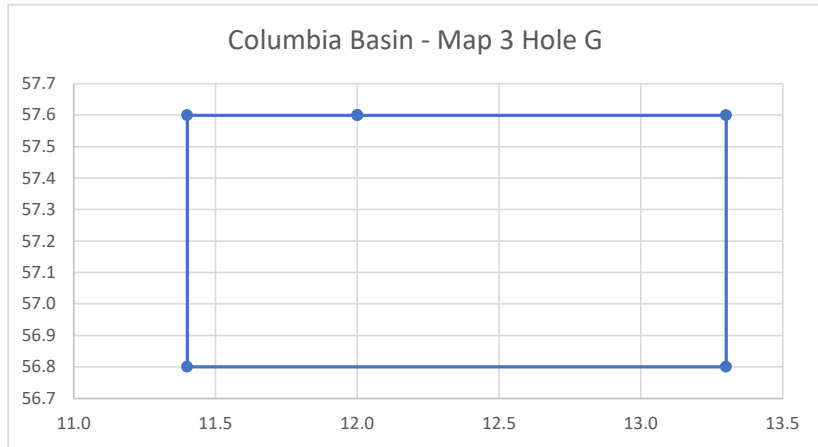
USBR/Klamath Project - AWIA Power Cost Benchmark Analysis
Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area	1.52
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Columbia Basin - Map 3 Hole G

Coordinate Number	X Coordinate	Y Coordinate
1	12.0	57.6
2	11.4	57.6
3	11.4	56.8
4	13.3	56.8
5	13.3	57.6
6	12.0	57.6



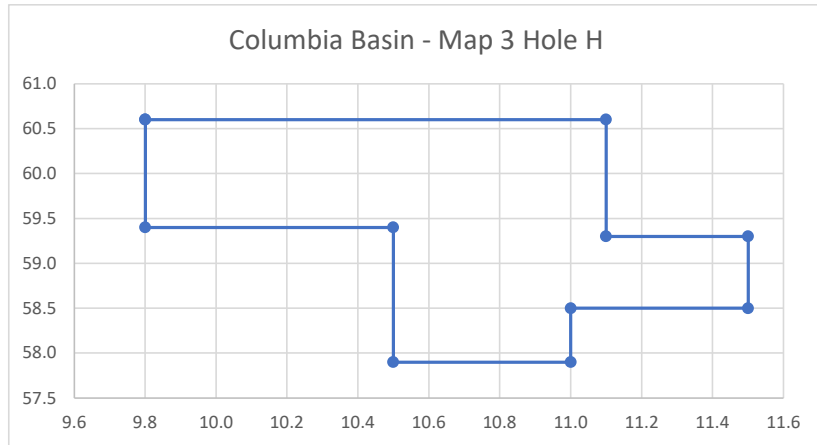
USBR/Klamath Project - AWIA Power Cost Benchmark Analysis Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area 2.72

Columbia Basin - Map 3 Hole H

Coordinate Number	X Coordinate	Y Coordinate
1	9.8	60.6
2	9.8	59.4
3	10.5	59.4
4	10.5	57.9
5	11.0	57.9
6	11.0	58.5
7	11.5	58.5
8	11.5	59.3
9	11.1	59.3
10	11.1	60.6
11	9.8	60.6



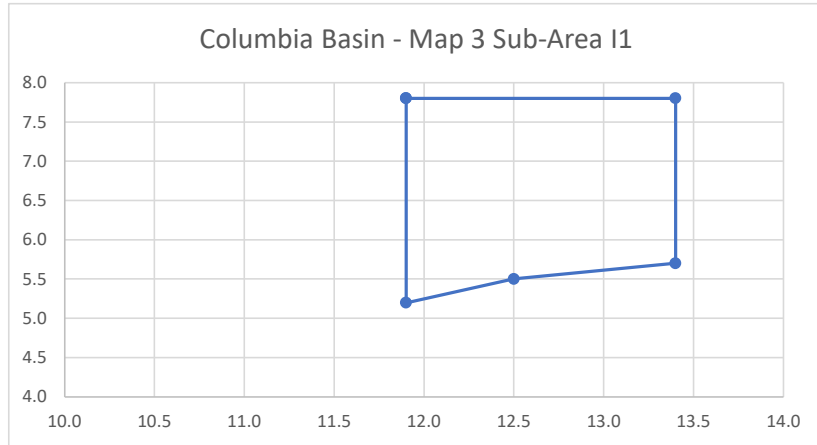
USBR/Klamath Project - AWIA Power Cost Benchmark Analysis
Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area	3.45
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Columbia Basin - Map 3 Sub-Area I1

Coordinate Number	X Coordinate	Y Coordinate
1	11.9	7.8
2	11.9	5.2
3	12.5	5.5
4	13.4	5.7
5	13.4	7.8
6	11.9	7.8



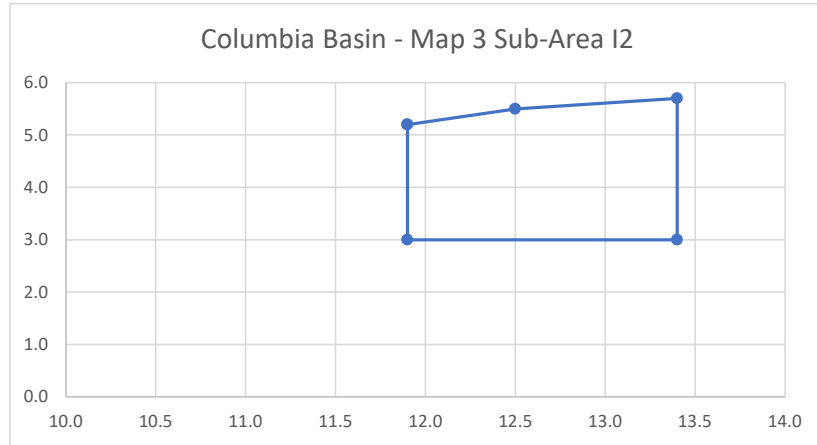
USBR/Klamath Project - AWIA Power Cost Benchmark Analysis
Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area	3.75
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Columbia Basin - Map 3 Sub-Area I2

Coordinate Number	X Coordinate	Y Coordinate
1	11.9	5.2
2	11.9	3.0
3	13.4	3.0
4	13.4	5.7
5	12.5	5.5
6	11.9	5.2



USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

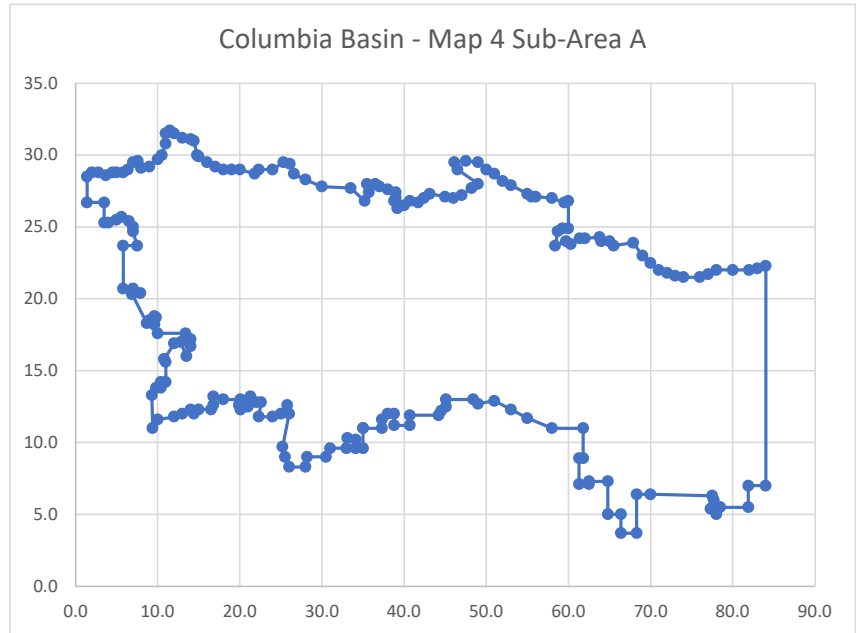
Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area 1,274.53

Columbia Basin - Map 4 Sub-Area A

Coordinate Number	X Coordinate	Y Coordinate
1	35.0	11.0
2	37.3	11.0
3	37.3	11.6
4	38.0	12.0
5	38.8	12.0
6	38.8	11.2
7	40.7	11.2
8	40.7	11.9
9	44.2	11.9
10	44.5	12.2
11	45.1	12.5
12	45.1	13.0
13	48.4	13.0
14	49.0	12.7
15	51.0	12.9
16	53.0	12.3
17	55.0	11.7
18	58.0	11.0
19	61.8	11.0
20	61.8	8.9
21	61.3	8.9
22	61.3	7.1
23	62.5	7.1
24	62.5	7.3
25	64.8	7.3
26	64.8	5.0
27	66.4	5.0
28	66.4	3.7
29	68.3	3.7
30	68.3	6.4
31	70.0	6.4
32	77.5	6.3
33	77.7	6.0
34	77.3	5.4
35	78.0	5.0
36	78.5	5.5
37	81.9	5.5
38	81.9	7.0
39	84.0	7.0
40	84.0	22.3
41	83.0	22.1
42	82.0	22.0
43	80.0	22.0
44	78.0	22.0
45	77.0	21.7
46	76.0	21.5
47	74.0	21.5
48	73.0	21.6
49	72.0	21.8
50	71.0	22.0
51	70.0	22.5
52	69.0	23.0
53	67.9	23.9
54	65.5	23.7
55	65.0	24.0
56	64.0	24.0
57	63.8	24.3
58	62.0	24.2



Columbia Basin - Map 4 Sub-Area A (continued)

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59	61.4	24.2
60	60.3	23.8
61	59.7	24.0
62	58.4	23.7
63	58.7	24.7
64	59.3	24.9
65	60.0	24.9
66	60.0	26.8
67	59.5	26.7
68	58.0	27.0
69	56.0	27.1
70	55.5	27.1
71	55.0	27.3
72	53.0	27.9
73	52.0	28.2
74	51.0	28.7
75	50.0	29.0
76	49.0	29.5
77	47.5	29.6
78	46.1	29.5
79	46.5	29.0
80	49.0	28.0
81	48.2	27.7
82	47.0	27.2
83	46.0	27.0
84	45.0	27.1
85	43.1	27.3
86	42.4	27.0
87	41.7	26.7
88	40.7	26.8
89	40.0	26.5
90	39.2	26.3
91	38.8	26.8
92	39.0	27.0
93	39.0	27.4
94	38.0	27.6
95	37.0	27.8
96	36.5	28.0
97	35.5	28.0
98	35.7	27.4
99	35.2	26.8
100	33.5	27.7
101	30.0	27.8
102	28.0	28.3
103	26.6	28.7
104	26.1	29.4
105	25.3	29.5
106	24.0	29.0
107	22.3	29.0
108	21.8	28.7
109	20.0	29.0
110	19.0	29.0
111	18.0	29.0
112	17.0	29.2
113	16.0	29.5
114	15.0	29.9
115	14.8	30.0
116	14.4	31.0
117	14.0	31.1
118	13.0	31.2
119	12.0	31.5
120	11.5	31.7
121	11.0	31.5
122	11.0	30.8
123	10.5	30.0
124	10.0	29.7
125	9.0	29.2
126	8.0	29.1

Columbia Basin - Map 4 Sub-Area A (continued)

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127	7.6	29.6
128	7.0	29.5
129	6.4	29.0
130	5.8	28.8
131	5.0	28.8
132	4.5	28.8
133	3.7	28.6
134	2.8	28.8
135	2.0	28.8
136	1.4	28.5
137	1.4	26.7
138	3.5	26.7
139	3.5	25.3
140	4.0	25.3
141	5.0	25.5
142	5.6	25.7
143	6.5	25.4
144	7.0	25.0
145	7.0	24.7
146	7.5	23.7
147	5.8	23.7
148	5.8	20.7
149	7.0	20.7
150	7.9	20.4
151	6.9	20.3
152	8.7	18.3
153	9.0	18.5
154	9.6	18.8
155	9.8	18.7
156	9.6	18.2
157	10.0	17.6
158	13.4	17.6
159	14.0	17.2
160	14.0	16.7
161	13.5	16.0
162	12.8	17.0
163	12.0	16.9
164	10.8	15.8
165	11.0	15.6
166	11.0	14.2
167	10.4	14.2
168	10.4	13.8
169	9.8	13.8
170	9.3	13.3
171	9.4	11.0
172	10.0	11.6
173	12.0	11.8
174	13.0	12.0
175	14.0	12.3
176	14.4	12.0
177	15.0	12.3
178	16.5	12.3
179	16.8	12.6
180	16.8	13.2
181	18.0	13.0
182	20.1	13.0
183	19.9	12.6
184	20.1	12.3
185	21.0	12.5
186	21.3	13.2
187	22.0	12.8
188	22.6	12.8
189	22.3	11.8
190	24.0	11.8
191	25.0	12.0
192	25.8	12.6
193	26.0	12.0
194	25.2	9.7

195	25.5	9.0
196	26.0	8.3
197	28.0	8.3
198	28.2	9.0
199	30.5	9.0
200	31.0	9.6
201	33.0	9.6
202	33.1	10.3
203	34.1	10.2
204	34.1	9.6
205	35.0	9.6
206	35.0	11.0

Columbia Basin - Map 4 Sub-Area A (continued)

USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

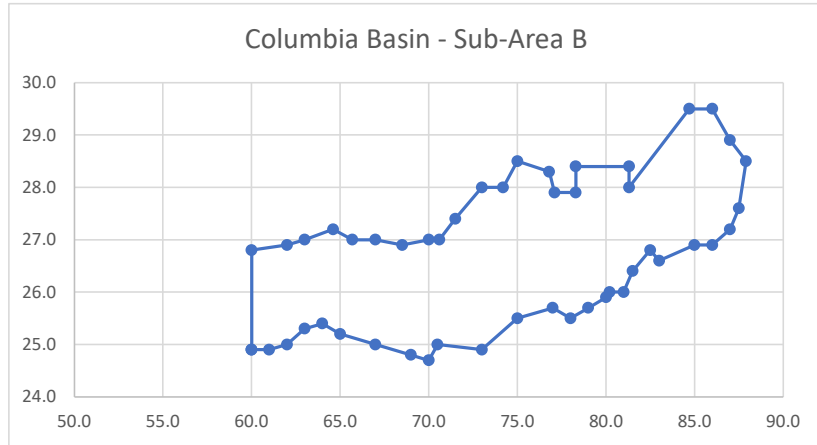
Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area 62.35

Columbia Basin - Map 4 Sub-Area B

Coordinate Number	X Coordinate	Y Coordinate
1	60.0	24.9
2	61.0	24.9
3	62.0	25.0
4	63.0	25.3
5	64.0	25.4
6	65.0	25.2
7	67.0	25.0
8	69.0	24.8
9	70.0	24.7
10	70.5	25.0
11	73.0	24.9
12	75.0	25.5
13	77.0	25.7
14	78.0	25.5
15	79.0	25.7
16	80.0	25.9
17	80.2	26.0
18	81.0	26.0
19	81.5	26.4
20	82.5	26.8
21	83.0	26.6
22	85.0	26.9
23	86.0	26.9
24	87.0	27.2
25	87.5	27.6
26	87.9	28.5
27	87.0	28.9
28	86.0	29.5
29	84.7	29.5
30	81.3	28.0
31	81.3	28.4
32	78.3	28.4
33	78.3	27.9
34	77.1	27.9
35	76.8	28.3
36	75.0	28.5
37	74.2	28.0
38	73.0	28.0
39	71.5	27.4
40	70.6	27.0
41	70.0	27.0
42	68.5	26.9
43	67.0	27.0
44	65.7	27.0
45	64.6	27.2
46	63.0	27.0
47	62.0	26.9
48	60.0	26.8
49	60.0	24.9



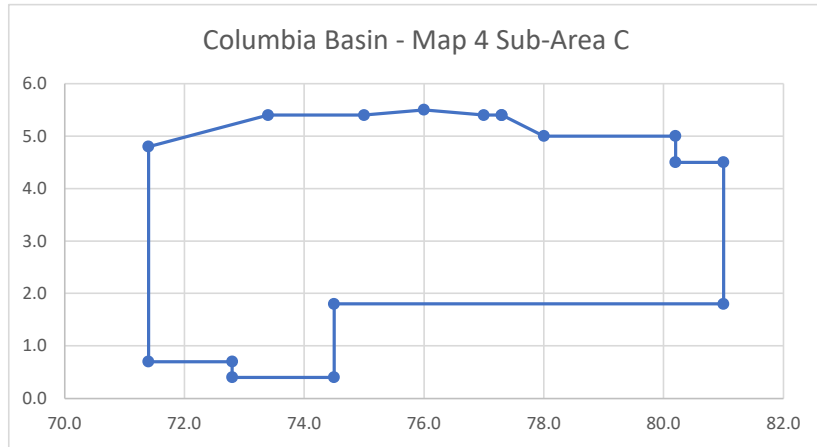
USBR/Klamath Project - AWIA Power Cost Benchmark Analysis **Columbia Basin Irrigation Project Electric Utility Load Ratio Summary**

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Total Area	36.24
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Columbia Basin - Map 4 Sub-Area C

Coordinate Number	X Coordinate	Y Coordinate
1	77.3	5.4
2	77.0	5.4
3	76.0	5.5
4	75.0	5.4
5	73.4	5.4
6	71.4	4.8
7	71.4	0.7
8	72.8	0.7
9	72.8	0.4
10	74.5	0.4
11	74.5	1.8
12	81.0	1.8
13	81.0	4.5
14	80.2	4.5
15	80.2	5.0
16	78.0	5.0
17	77.3	5.4



USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

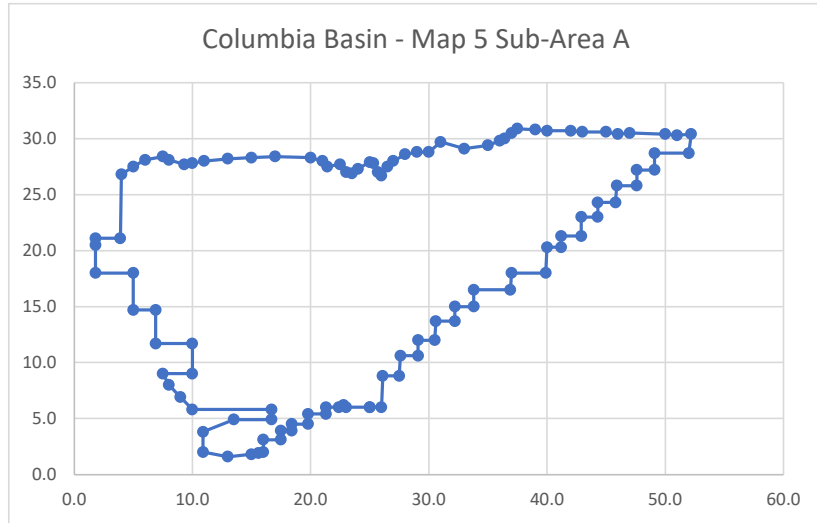
Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area 750.10

Columbia Basin - Map 5 Sub-Area A

Coordinate Number	X Coordinate	Y Coordinate
1	25.0	6.0
2	26.0	6.0
3	26.1	8.8
4	27.5	8.8
5	27.6	10.6
6	29.1	10.6
7	29.1	12.0
8	30.5	12.0
9	30.6	13.7
10	32.2	13.7
11	32.2	15.0
12	33.8	15.0
13	33.8	16.5
14	36.9	16.5
15	37.0	18.0
16	39.9	18.0
17	40.0	20.3
18	41.2	20.3
19	41.2	21.3
20	42.9	21.3
21	42.9	23.0
22	44.3	23.0
23	44.3	24.3
24	45.8	24.3
25	45.9	25.8
26	47.6	25.8
27	47.6	27.2
28	49.1	27.2
29	49.1	28.7
30	52.0	28.7
31	52.2	30.4
32	51.0	30.3
33	50.0	30.4
34	47.0	30.5
35	46.0	30.4
36	45.0	30.6
37	43.0	30.6
38	42.0	30.7
39	40.0	30.7
40	39.0	30.8
41	37.5	30.9
42	37.0	30.5
43	36.4	30.0
44	36.0	29.8
45	35.0	29.4
46	33.0	29.1
47	31.0	29.7
48	30.0	28.8
49	29.0	28.8
50	28.0	28.6
51	27.0	28.0
52	26.5	27.5
53	26.0	26.7
54	25.7	27.0
55	25.3	27.8
56	25.0	27.9
57	24.0	27.3
58	23.5	26.9



Columbia Basin - Map 5 Sub-Area A (continued)

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59	23.0	27.0
60	22.5	27.7
61	21.4	27.5
62	21.0	28.0
63	20.0	28.3
64	17.0	28.4
65	15.0	28.3
66	13.0	28.2
67	11.0	28.0
68	10.0	27.8
69	9.3	27.7
70	8.0	28.1
71	7.5	28.4
72	6.0	28.1
73	5.0	27.5
74	4.0	26.8
75	3.9	21.1
76	1.8	21.1
77	1.8	20.5
78	1.8	18.0
79	5.0	18.0
80	5.0	14.7
81	6.9	14.7
82	6.9	11.7
83	10.0	11.7
84	10.0	9.0
85	7.5	9.0
86	8.0	8.0
87	9.0	6.9
88	10.0	5.8
89	16.7	5.8
90	16.7	4.9
91	13.5	4.9
92	10.9	3.8
93	10.9	2.0
94	13.0	1.6
95	15.0	1.8
96	15.6	1.9
97	16.0	2.0
98	16.0	3.1
99	17.5	3.1
100	17.5	3.9
101	18.4	3.9
102	18.4	4.5
103	19.8	4.5
104	19.8	5.4
105	21.3	5.4
106	21.3	6.0
107	22.4	6.0
108	22.8	6.2
109	23.0	6.0
110	25.0	6.0

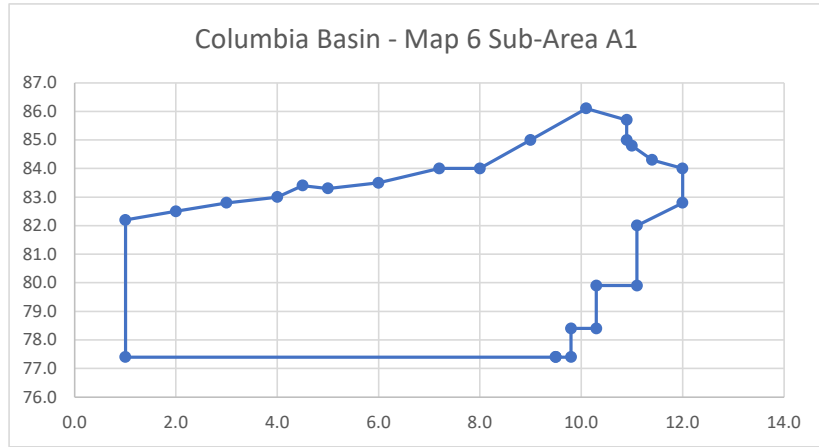
USBR/Klamath Project - AWIA Power Cost Benchmark Analysis **Columbia Basin Irrigation Project Electric Utility Load Ratio Summary**

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Total Area	64.00
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Columbia Basin - Map 6 Sub-Area A1

Coordinate Number	X Coordinate	Y Coordinate
1	9.5	77.4
2	9.8	77.4
3	9.8	78.4
4	10.3	78.4
5	10.3	79.9
6	11.1	79.9
7	11.1	82.0
8	12.0	82.8
9	12.0	84.0
10	11.4	84.3
11	11.0	84.8
12	10.9	85.0
13	10.9	85.7
14	10.1	86.1
15	9.0	85.0
16	8.0	84.0
17	7.2	84.0
18	6.0	83.5
19	5.0	83.3
20	4.5	83.4
21	4.0	83.0
22	3.0	82.8
23	2.0	82.5
24	1.0	82.2
25	1.0	77.4
26	9.5	77.4



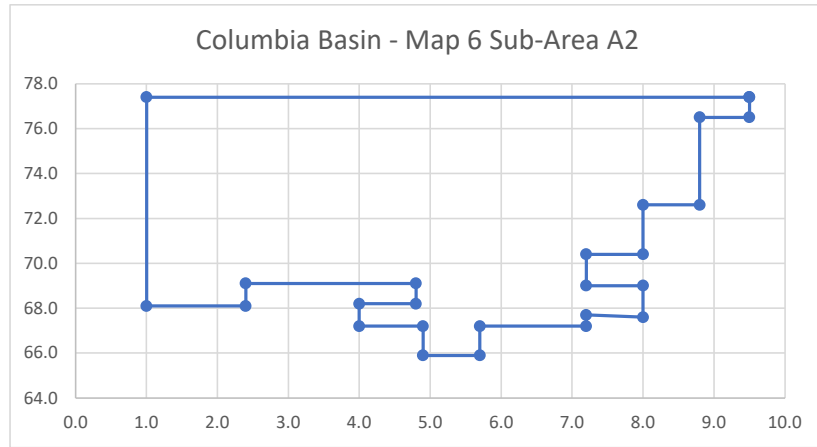
USBR/Klamath Project - AWIA Power Cost Benchmark Analysis **Columbia Basin Irrigation Project Electric Utility Load Ratio Summary**

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Total Area	70.41
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Columbia Basin - Map 6 Sub-Area A2

Coordinate Number	X Coordinate	Y Coordinate
1	9.5	77.4
2	1.0	77.4
3	1.0	68.1
4	2.4	68.1
5	2.4	69.1
6	4.8	69.1
7	4.8	68.2
8	4.0	68.2
9	4.0	67.2
10	4.9	67.2
11	4.9	65.9
12	5.7	65.9
13	5.7	67.2
14	7.2	67.2
15	7.2	67.7
16	8.0	67.6
17	8.0	69.0
18	7.2	69.0
19	7.2	70.4
20	8.0	70.4
21	8.0	72.6
22	8.8	72.6
23	8.8	76.5
24	9.5	76.5
25	9.5	77.4



USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

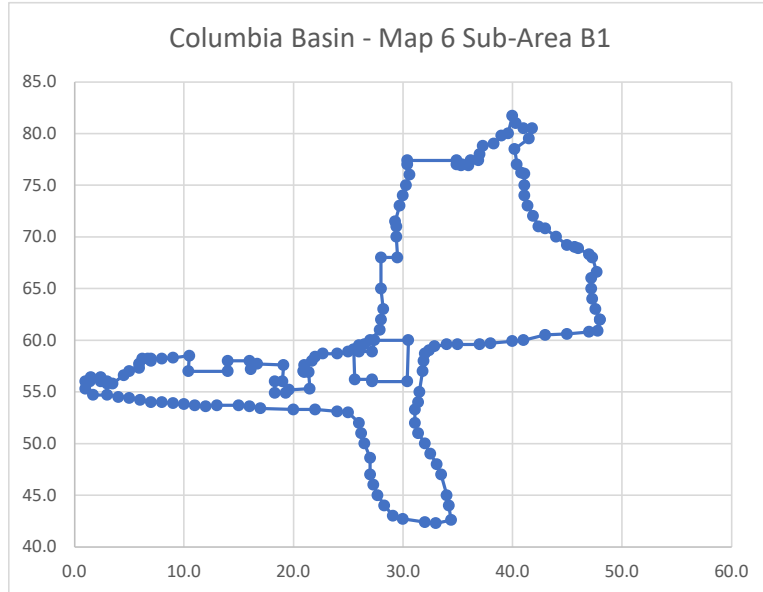
Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area 457.33

Columbia Basin - Map 6 Sub-Area B1

Coordinate Number	X Coordinate	Y Coordinate
1	48.0	62.0
2	47.6	63.0
3	47.3	64.0
4	47.2	65.0
5	47.2	66.0
6	47.7	66.6
7	47.3	68.0
8	47.0	68.3
9	46.0	68.9
10	45.7	69.0
11	45.0	69.2
12	44.0	70.0
13	43.0	70.8
14	42.4	71.0
15	41.9	72.0
16	41.4	73.0
17	41.1	74.0
18	41.1	75.0
19	41.1	76.1
20	40.8	76.2
21	40.4	77.0
22	40.2	78.5
23	41.5	79.5
24	41.8	80.5
25	41.0	80.5
26	40.3	81.0
27	40.0	81.7
28	39.6	80.0
29	39.0	79.8
30	38.3	79.0
31	37.3	78.8
32	37.0	78.0
33	36.9	77.4
34	36.2	77.4
35	36.0	76.9
36	35.3	76.9
37	35.4	77.0
38	34.9	77.0
39	34.9	77.4
40	30.4	77.4
41	30.4	77.0
42	30.6	76.0
43	30.3	75.0
44	30.0	74.0
45	29.7	73.0
46	29.3	71.5
47	29.4	71.0
48	29.4	70.0
49	29.5	68.0
50	28.0	68.0
51	28.0	65.0
52	28.2	63.0
53	28.0	62.0
54	27.9	61.0
55	27.0	60.0
56	26.5	59.6
57	26.0	59.5
58	26.0	58.9



59	27.2	58.9
60	27.4	60.0
61	30.5	60.0
62	30.4	56.0
63	27.2	56.0
64	27.2	56.2
65	25.6	56.2
66	25.5	59.1
67	25.0	58.9
68	24.0	58.7
69	22.7	58.7
70	22.0	58.4
71	21.7	58.0
72	21.0	57.6
73	20.9	57.0
74	21.0	56.9
75	21.4	56.9
76	21.5	55.3
77	19.6	55.2
78	19.3	54.9
79	18.3	54.9
80	18.3	56.0
81	19.0	56.0
82	19.1	57.6
83	16.7	57.7
84	16.1	57.2
85	16.0	58.0
86	14.0	58.0
87	14.0	57.0
88	10.4	57.0
89	10.5	58.5
90	9.0	58.3
91	8.0	58.2
92	7.0	58.2
93	7.0	58.0
94	6.7	58.2
95	6.2	58.2
96	5.9	57.7
97	5.9	57.3
98	5.0	57.0
99	4.5	56.6
100	3.5	55.8
101	3.0	55.8
102	3.0	56.0
103	2.4	56.0
104	2.4	56.4
105	1.5	56.4
106	1.4	56.0
107	1.0	56.0
108	1.0	55.3
109	1.7	54.7
110	3.0	54.7
111	4.0	54.5
112	5.0	54.4
113	6.0	54.2
114	7.0	54.0
115	8.0	54.0
116	9.0	53.9
117	10.0	53.8
118	11.0	53.7
119	12.0	53.6
120	13.0	53.7
121	15.0	53.7
122	16.0	53.6
123	17.0	53.4
124	20.0	53.3
125	22.0	53.3
126	24.0	53.1

Columbia Basin - Map 6 Sub-Area B1 (continued)

Columbia Basin - Map 6 Sub-Area B1 (continued)

127	25.0	53.0
128	26.0	52.0
129	26.2	51.0
130	26.5	50.0
131	27.0	48.6
132	27.0	47.0
133	27.3	46.0
134	27.7	45.0
135	28.3	44.0
136	29.1	43.0
137	30.0	42.7
138	32.0	42.4
139	33.0	42.3
140	34.4	42.6
141	34.2	44.0
142	34.0	45.0
143	33.5	47.0
144	33.1	48.0
145	32.5	49.0
146	32.0	50.0
147	31.4	51.0
148	31.1	52.0
149	31.1	53.3
150	31.4	54.0
151	31.5	55.0
152	31.8	57.0
153	31.9	58.0
154	32.0	58.7
155	32.4	59.0
156	32.9	59.4
157	34.0	59.6
158	35.0	59.6
159	37.0	59.6
160	38.0	59.7
161	40.0	59.9
162	41.0	60.0
163	43.0	60.5
164	45.0	60.6
165	47.0	60.8
166	47.8	60.9
167	48.0	62.0

USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

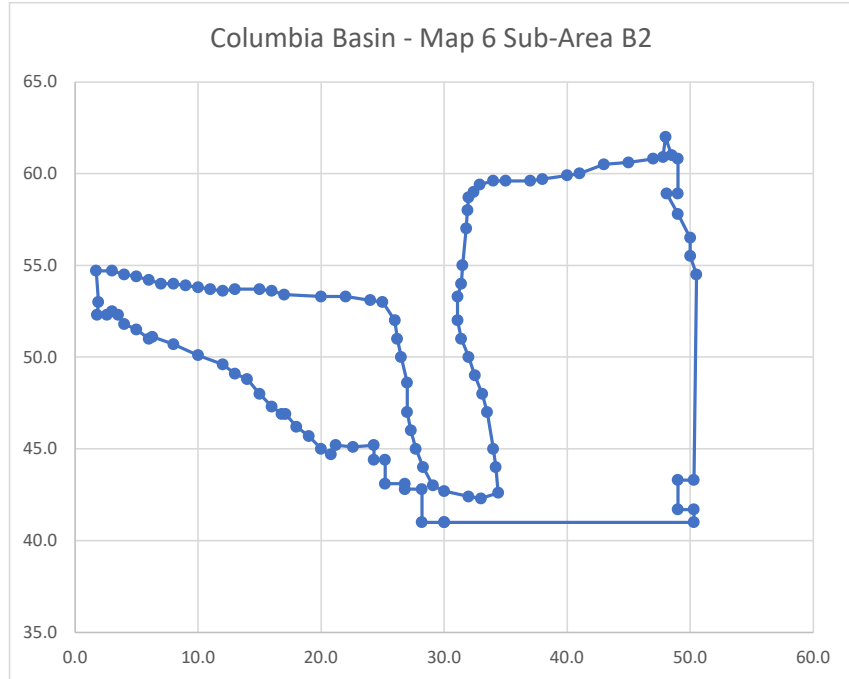
Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area 484.75

Columbia Basin - Map 6 Sub-Area B2

Coordinate Number	X Coordinate	Y Coordinate
1	30.0	41.0
2	50.3	41.0
3	50.3	41.7
4	49.0	41.7
5	49.0	43.3
6	50.3	43.3
7	50.5	54.5
8	50.0	55.5
9	50.0	56.5
10	49.0	57.8
11	48.1	58.9
12	49.0	58.9
13	49.0	60.8
14	48.5	61.0
15	48.0	62.0
16	47.8	60.9
17	47.0	60.8
18	45.0	60.6
19	43.0	60.5
20	41.0	60.0
21	40.0	59.9
22	38.0	59.7
23	37.0	59.6
24	35.0	59.6
25	34.0	59.6
26	32.9	59.4
27	32.4	59.0
28	32.0	58.7
29	31.9	58.0
30	31.8	57.0
31	31.5	55.0
32	31.4	54.0
33	31.1	53.3
34	31.1	52.0
35	31.4	51.0
36	32.0	50.0
37	32.5	49.0
38	33.1	48.0
39	33.5	47.0
40	34.0	45.0
41	34.2	44.0
42	34.4	42.6
43	33.0	42.3
44	32.0	42.4
45	30.0	42.7
46	29.1	43.0
47	28.3	44.0
48	27.7	45.0
49	27.3	46.0
50	27.0	47.0
51	27.0	48.6
52	26.5	50.0
53	26.2	51.0
54	26.0	52.0
55	25.0	53.0
56	24.0	53.1
57	22.0	53.3
58	20.0	53.3



Columbia Basin - Map 6 Sub-Area B2 (continued)

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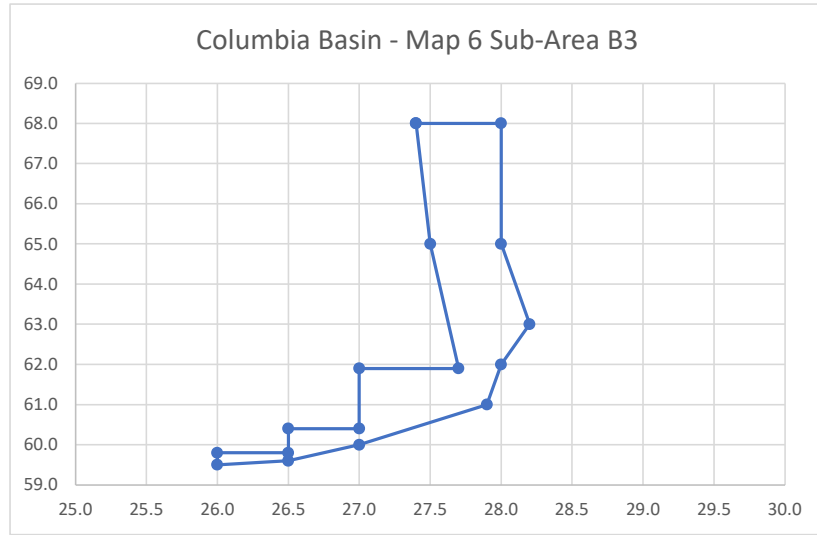
59	17.0	53.4
60	16.0	53.6
61	15.0	53.7
62	13.0	53.7
63	12.0	53.6
64	11.0	53.7
65	10.0	53.8
66	9.0	53.9
67	8.0	54.0
68	7.0	54.0
69	6.0	54.2
70	5.0	54.4
71	4.0	54.5
72	3.0	54.7
73	1.7	54.7
74	1.9	53.0
75	1.8	52.3
76	2.6	52.3
77	3.0	52.5
78	3.5	52.3
79	4.0	51.8
80	5.0	51.5
81	6.0	51.0
82	6.3	51.1
83	8.0	50.7
84	10.0	50.1
85	12.0	49.6
86	13.0	49.1
87	14.0	48.8
88	15.0	48.0
89	16.0	47.3
90	16.8	46.9
91	17.1	46.9
92	18.0	46.2
93	19.0	45.7
94	20.0	45.0
95	20.8	44.7
96	21.2	45.2
97	22.6	45.1
98	24.3	45.2
99	24.3	44.4
100	25.2	44.4
101	25.2	43.1
102	26.8	43.1
103	26.8	42.8
104	28.2	42.8
105	28.2	41.0
106	30.0	41.0

USBR/Klamath Project - AWIA Power Cost Benchmark Analysis **Columbia Basin Irrigation Project Electric Utility Load Ratio Summary**

Total Area	4.92
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Columbia Basin - Map 6 Sub-Area B3

Coordinate Number	X Coordinate	Y Coordinate
1	27.4	68.0
2	27.5	65.0
3	27.7	61.9
4	27.0	61.9
5	27.0	60.4
6	26.5	60.4
7	26.5	59.8
8	26.0	59.8
9	26.0	59.5
10	26.5	59.6
11	27.0	60.0
12	27.9	61.0
13	28.0	62.0
14	28.2	63.0
15	28.0	65.0
16	28.0	68.0
17	27.4	68.0

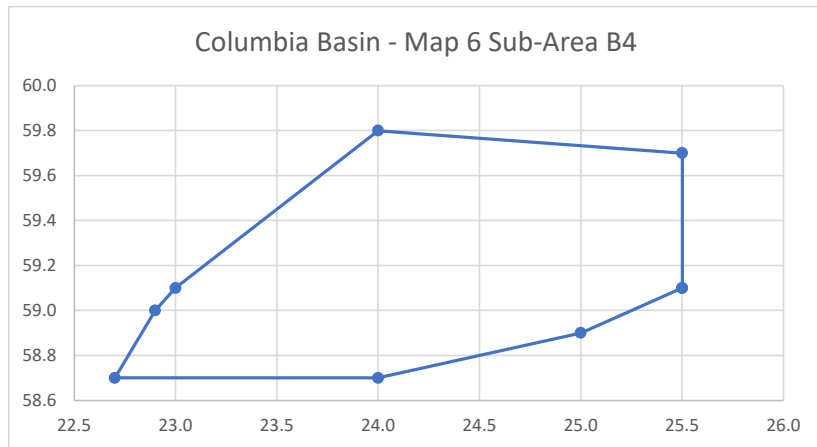


USBR/Klamath Project - AWIA Power Cost Benchmark Analysis
Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area	2.14
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Columbia Basin - Map 6 Sub-Area B4		
Coordinate Number	X Coordinate	Y Coordinate
1	25.5	59.1
3	25.5	59.7
4	24.0	59.8
5	23.0	59.1
6	22.9	59.0
7	22.7	58.7
8	24.0	58.7
9	25.0	58.9
10	25.5	59.1

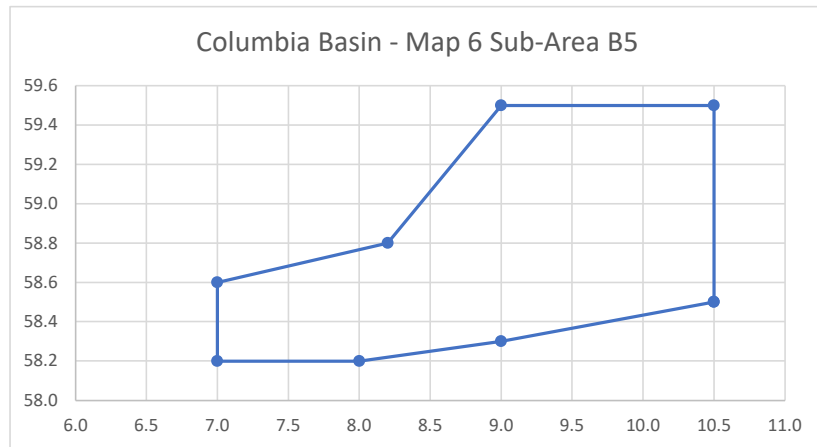


USBR/Klamath Project - AWIA Power Cost Benchmark Analysis
Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area	2.96
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Columbia Basin - Map 6 Sub-Area B5		
Coordinate Number	X Coordinate	Y Coordinate
1	10.5	58.5
2	10.5	59.5
3	9.0	59.5
4	8.2	58.8
5	7.0	58.6
6	7.0	58.2
7	8.0	58.2
8	9.0	58.3
9	10.5	58.5



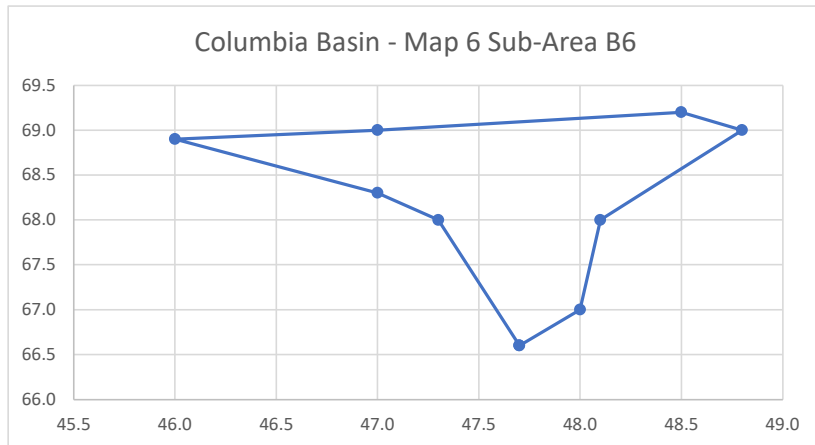
USBR/Klamath Project - AWIA Power Cost Benchmark Analysis
Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area	2.62
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Columbia Basin - Map 6 Sub-Area B6

Coordinate Number	X Coordinate	Y Coordinate
1	47.7	66.6
3	48.0	67.0
4	48.1	68.0
5	48.8	69.0
6	48.5	69.2
7	47.0	69.0
8	46.0	68.9
9	47.0	68.3
10	47.3	68.0
11	47.7	66.6

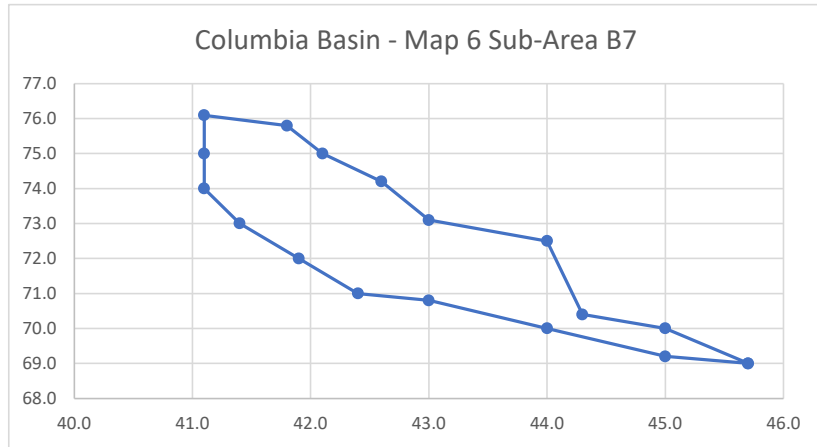


USBR/Klamath Project - AWIA Power Cost Benchmark Analysis **Columbia Basin Irrigation Project Electric Utility Load Ratio Summary**

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Total Area	9.61
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Columbia Basin - Map 6 Sub-Area B7		
Coordinate Number	X Coordinate	Y Coordinate
1	45.7	69.0
2	45.0	70.0
3	44.3	70.4
4	44.0	72.5
5	43.0	73.1
6	42.6	74.2
7	42.1	75.0
8	41.8	75.8
9	41.1	76.1
10	41.1	75.0
11	41.1	74.0
12	41.4	73.0
13	41.9	72.0
14	42.4	71.0
15	43.0	70.8
16	44.0	70.0
17	45.0	69.2
18	45.7	69.0



USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

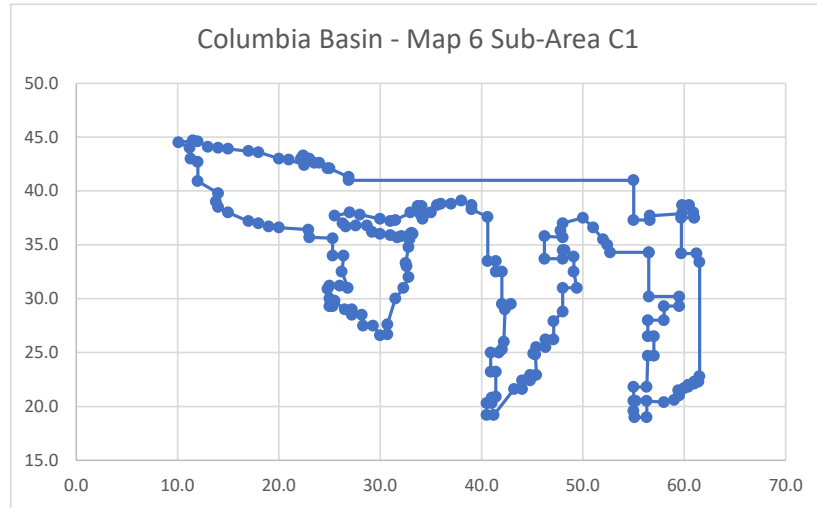
Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area 418.95

Columbia Basin - Map 6 Sub-Area C1

Coordinate Number	X Coordinate	Y Coordinate
1	56.5	34.3
2	56.5	30.2
3	59.5	30.2
4	59.5	29.3
5	58.0	29.3
6	58.0	28.0
7	56.4	28.0
8	56.4	26.5
9	57.0	26.5
10	57.0	24.7
11	56.4	24.7
12	56.3	21.8
13	55.0	21.8
14	55.0	20.5
15	55.2	20.5
16	55.0	19.6
17	55.1	19.0
18	56.3	19.0
19	56.3	20.5
20	58.0	20.4
21	59.0	20.6
22	59.5	21.0
23	59.4	21.5
24	60.0	21.7
25	60.4	21.8
26	60.4	22.0
27	61.0	22.1
28	61.0	22.3
29	61.4	22.3
30	61.5	22.8
31	61.5	33.4
32	61.2	34.2
33	59.7	34.2
34	59.7	37.5
35	61.0	37.5
36	60.9	38.0
37	60.5	38.7
38	59.8	38.7
39	59.8	37.9
40	56.6	37.7
41	56.6	37.3
42	55.0	37.3
43	55.0	41.0
44	26.9	41.0
45	26.9	41.3
46	25.0	42.1
47	24.8	42.1
48	24.0	42.6
49	23.5	42.6
50	23.0	43.0
51	22.4	43.3
52	22.2	43.0
53	22.5	42.4
54	21.0	42.9
55	20.0	43.0
56	18.0	43.6
57	17.0	43.7
58	15.0	43.9



59	14.0	44.0
60	13.0	44.1
61	12.0	44.6
62	11.5	44.7
63	10.1	44.5
64	11.2	44.0
65	11.3	43.0
66	12.0	42.7
67	12.0	40.9
68	14.0	39.8
69	13.8	39.0
70	14.0	38.5
71	15.0	38.0
72	17.0	37.2
73	18.0	37.0
74	19.0	36.7
75	20.0	36.6
76	22.9	36.4
77	23.0	35.7
78	25.3	35.6
79	25.3	34.0
80	26.4	34.0
81	26.2	32.5
82	26.8	31.0
83	26.0	31.2
84	25.0	31.2
85	24.8	30.9
86	25.0	30.0
87	25.0	29.3
88	25.3	29.3
89	25.5	29.8
90	26.5	29.0
91	27.2	29.0
92	27.2	28.5
93	28.2	28.5
94	28.3	27.5
95	29.3	27.5
96	30.0	26.6
97	30.7	26.7
98	30.7	27.6
99	31.5	30.0
100	32.3	31.0
101	32.8	32.0
102	32.6	33.0
103	32.5	33.3
104	32.8	34.8
105	33.2	36.0
106	33.1	36.1
107	33.0	36.0
108	32.9	35.5
109	32.1	35.8
110	31.7	35.7
111	31.0	35.9
112	30.0	36.0
113	29.2	36.2
114	28.7	36.8
115	27.6	36.8
116	26.6	36.7
117	26.3	37.0
118	25.5	37.7
119	27.0	38.0
120	28.0	37.8
121	30.0	37.4
122	31.0	37.2
123	31.5	37.3
124	33.0	38.0
125	33.7	38.6
126	34.1	38.6

Columbia Basin - Map 6 Sub-Area C1 (continued)

Columbia Basin - Map 6 Sub-Area C1 (continued)

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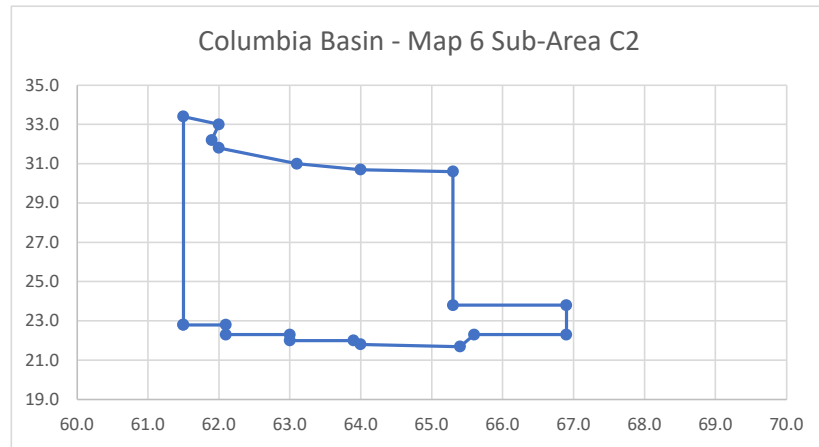
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128	34.2	37.4
129	35.0	38.0
130	35.6	38.7
131	36.0	38.8
132	37.0	38.8
133	38.0	39.1
134	39.0	38.7
135	39.0	38.3
136	40.6	37.6
137	40.6	33.5
138	41.4	33.5
139	41.4	32.5
140	42.0	32.5
141	42.0	29.5
142	42.9	29.5
143	42.3	29.0
144	42.2	26.0
145	42.0	25.3
146	41.7	25.0
147	40.9	25.0
148	40.9	23.2
149	41.4	23.2
150	41.4	20.9
151	41.0	20.8
152	41.0	20.3
153	40.5	20.3
154	40.5	19.2
155	41.2	19.2
156	43.2	21.6
157	44.0	21.6
158	44.0	22.4
159	44.8	22.4
160	44.8	22.9
161	45.4	22.9
162	45.3	24.8
163	45.1	24.9
164	45.4	25.5
165	46.3	25.5
166	46.3	26.2
167	47.1	26.2
168	47.1	27.9
169	48.0	28.8
170	48.0	31.0
171	49.4	31.0
172	49.1	32.5
173	49.1	33.9
174	48.2	34.5
175	48.0	34.5
176	48.0	33.7
177	46.2	33.7
178	46.2	35.8
179	48.0	35.7
180	47.8	36.3
181	48.0	37.0
182	50.0	37.5
183	51.0	36.6
184	52.0	35.5
185	52.4	35.0
186	52.7	34.3
187	56.5	34.3

USBR/Klamath Project - AWIA Power Cost Benchmark Analysis **Columbia Basin Irrigation Project Electric Utility Load Ratio Summary**

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Total Area	37.19
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Columbia Basin - Map 6 Sub-Area C2		
Coordinate Number	X Coordinate	Y Coordinate
1	61.5	22.8
2	62.1	22.8
3	62.1	22.3
4	63.0	22.3
5	63.0	22.0
6	63.9	22.0
7	64.0	21.8
8	65.4	21.7
9	65.6	22.3
10	66.9	22.3
11	66.9	23.8
12	65.3	23.8
13	65.3	30.6
14	64.0	30.7
15	63.1	31.0
16	62.0	31.8
17	61.9	32.2
18	62.0	33.0
19	61.5	33.4
20	61.5	22.8



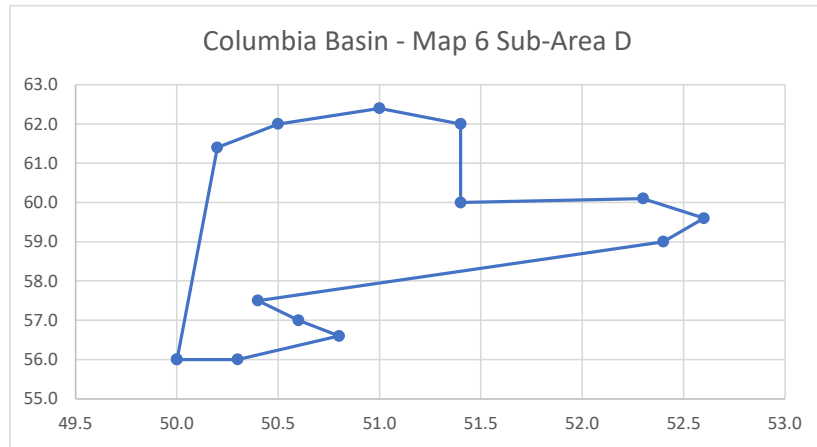
USBR/Klamath Project - AWIA Power Cost Benchmark Analysis Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area 7.73

Columbia Basin - Map 6 Sub-Area D

Coordinate Number	X Coordinate	Y Coordinate
1	50.0	56.0
2	50.3	56.0
3	50.8	56.6
4	50.6	57.0
5	50.4	57.5
6	52.4	59.0
7	52.6	59.6
8	52.3	60.1
9	51.4	60.0
10	51.4	62.0
11	51.0	62.4
12	50.5	62.0
13	50.2	61.4
14	50.0	56.0



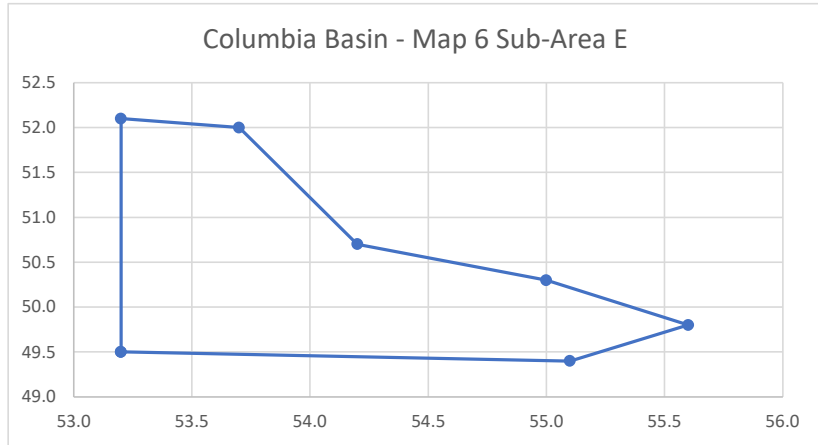
USBR/Klamath Project - AWIA Power Cost Benchmark Analysis
Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area 3.38

Columbia Basin - Map 6 Sub-Area E

Coordinate Number	X Coordinate	Y Coordinate
1	53.2	49.5
2	55.1	49.4
3	55.6	49.8
4	55.0	50.3
5	54.2	50.7
6	53.7	52.0
7	53.2	52.1
8	53.2	49.5



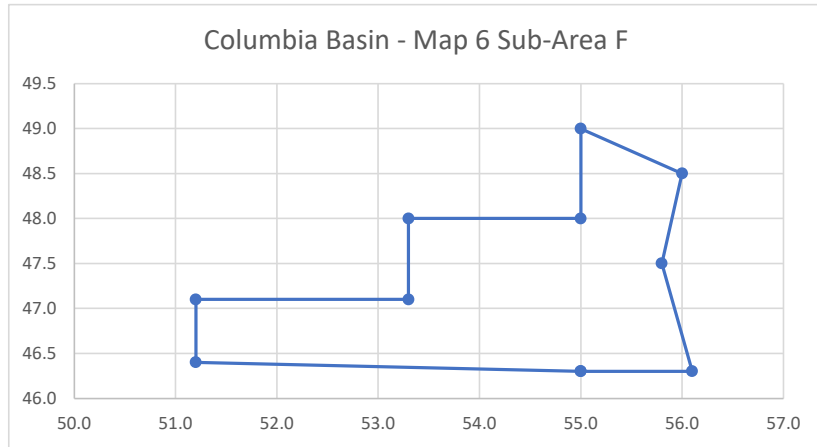
USBR/Klamath Project - AWIA Power Cost Benchmark Analysis
Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area	6.67
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Columbia Basin - Map 6 Sub-Area F

Coordinate Number	X Coordinate	Y Coordinate
1	55.0	46.3
2	56.1	46.3
3	55.8	47.5
4	56.0	48.5
5	55.0	49.0
6	55.0	48.0
7	53.3	48.0
8	53.3	47.1
9	51.2	47.1
10	51.2	46.4
11	55.0	46.3



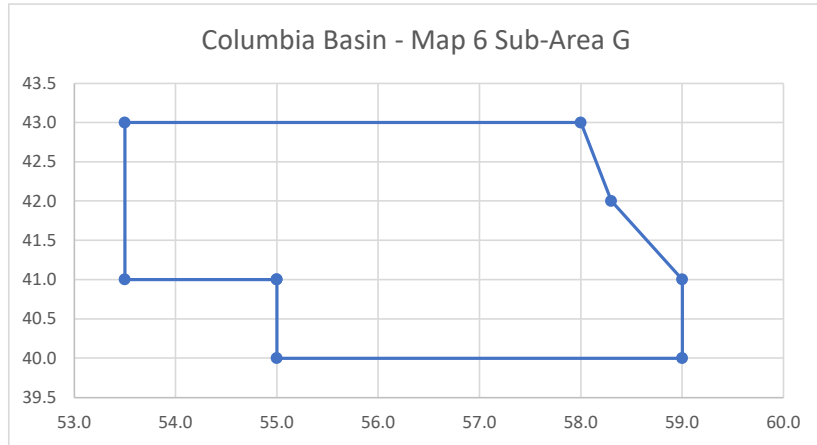
USBR/Klamath Project - AWIA Power Cost Benchmark Analysis
Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area	13.80
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Columbia Basin - Map 6 Sub-Area G

Coordinate Number	X Coordinate	Y Coordinate
1	55.0	41.0
2	55.0	40.0
3	59.0	40.0
4	59.0	41.0
5	58.3	42.0
6	58.0	43.0
7	53.5	43.0
8	53.5	41.0
9	55.0	41.0



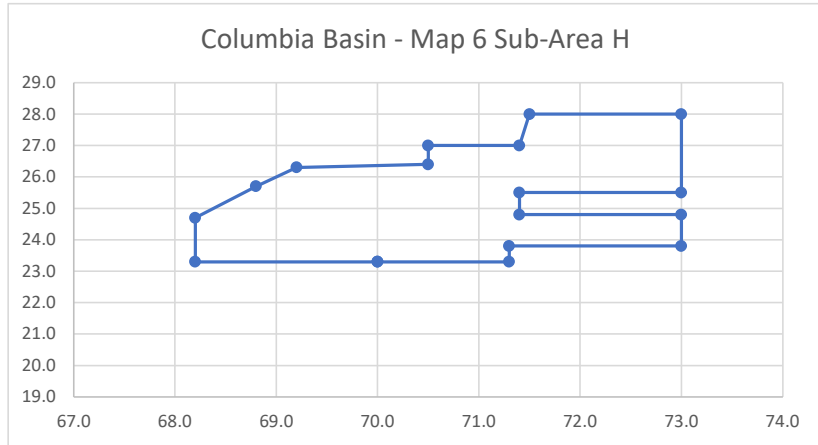
USBR/Klamath Project - AWIA Power Cost Benchmark Analysis **Columbia Basin Irrigation Project Electric Utility Load Ratio Summary**

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Total Area	15.02
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Columbia Basin - Map 6 Sub-Area H

Coordinate Number	X Coordinate	Y Coordinate
1	70.0	23.3
2	71.3	23.3
3	71.3	23.8
4	73.0	23.8
5	73.0	24.8
6	71.4	24.8
7	71.4	25.5
8	73.0	25.5
9	73.0	28.0
10	71.5	28.0
11	71.4	27.0
12	70.5	27.0
13	70.5	26.4
14	69.2	26.3
15	68.8	25.7
16	68.2	24.7
17	68.2	23.3
18	70.0	23.3



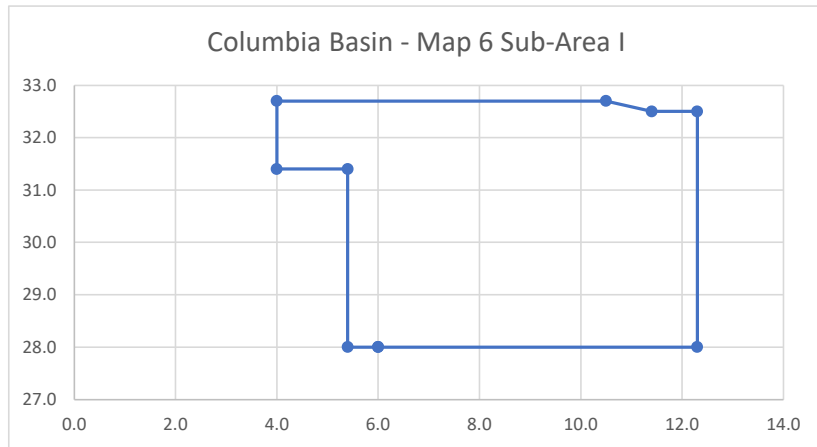
USBR/Klamath Project - AWIA Power Cost Benchmark Analysis Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area 33.98

Columbia Basin - Map 6 Sub-Area I

Coordinate Number	X Coordinate	Y Coordinate
1	6.0	28.0
2	12.3	28.0
3	12.3	32.5
4	11.4	32.5
5	10.5	32.7
6	4.0	32.7
7	4.0	31.4
8	5.4	31.4
9	5.4	28.0
10	6.0	28.0



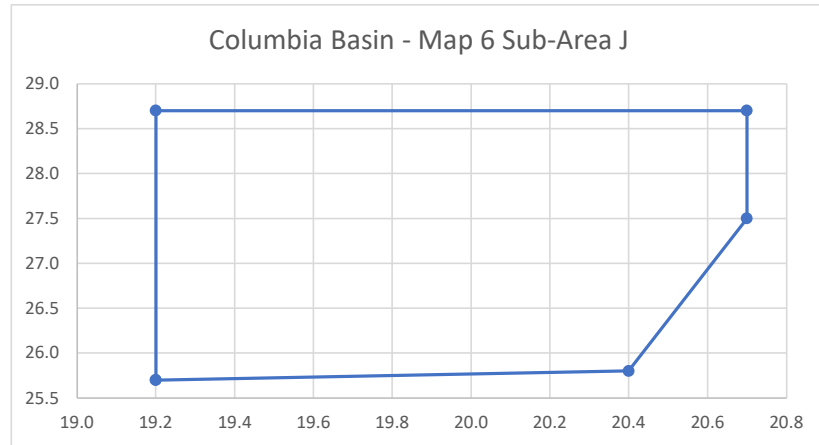
USBR/Klamath Project - AWIA Power Cost Benchmark Analysis
Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area	4.15
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Columbia Basin - Map 6 Sub-Area J

Coordinate Number	X Coordinate	Y Coordinate
1	19.2	25.7
2	20.4	25.8
3	20.7	27.5
4	20.7	28.7
5	19.2	28.7
6	19.2	25.7



USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

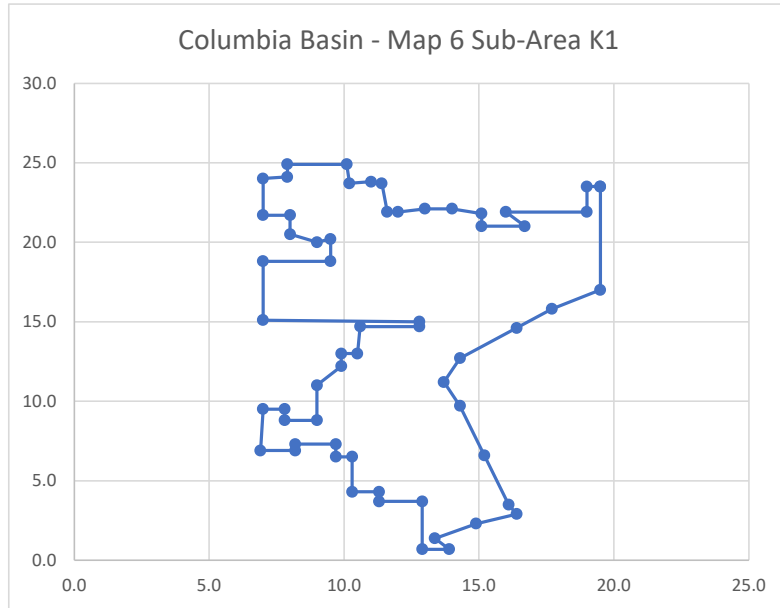
Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area 156.71

Columbia Basin - Map 6 Sub-Area K1

Coordinate Number	X Coordinate	Y Coordinate
1	19.5	23.5
2	19.0	23.5
3	19.0	21.9
4	16.0	21.9
5	16.7	21.0
6	15.1	21.0
7	15.1	21.8
8	14.0	22.1
9	13.0	22.1
10	12.0	21.9
11	11.6	21.9
12	11.4	23.7
13	11.0	23.8
14	10.2	23.7
15	10.1	24.9
16	7.9	24.9
17	7.9	24.1
18	7.0	24.0
19	7.0	21.7
20	8.0	21.7
21	8.0	20.5
22	9.0	20.0
23	9.5	20.2
24	9.5	18.8
25	7.0	18.8
26	7.0	15.1
27	12.8	15.0
28	12.8	14.7
29	10.6	14.7
30	10.5	13.0
31	9.9	13.0
32	9.9	12.2
33	9.0	11.0
34	9.0	8.8
35	7.8	8.8
36	7.8	9.5
37	7.0	9.5
38	6.9	6.9
39	8.2	6.9
40	8.2	7.3
41	9.7	7.3
42	9.7	6.5
43	10.3	6.5
44	10.3	4.3
45	11.3	4.3
46	11.3	3.7
47	12.9	3.7
48	12.9	0.7
49	13.9	0.7
50	13.4	1.4
51	14.9	2.3
52	16.4	2.9
53	16.1	3.5
54	15.2	6.6
55	14.3	9.7
56	13.7	11.2
57	14.3	12.7
58	16.4	14.6



59	17.7	15.8
60	19.5	17.0
61	19.5	23.5

Columbia Basin - Map 6 Sub-Area K1 (continued)

USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

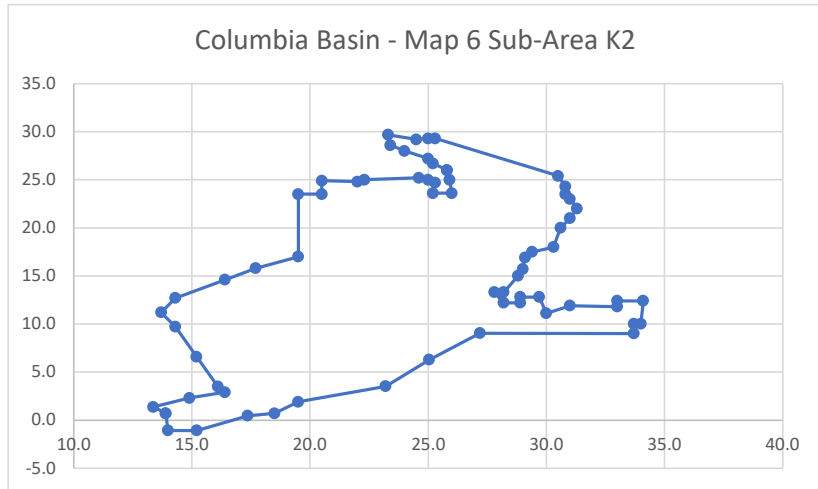
Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area 296.26

Columbia Basin - Map 6 Sub-Area K2

Coordinate Number	X Coordinate	Y Coordinate
1	13.9	0.7
2	14.0	-1.1
3	15.2	-1.1
4	17.4	0.4
5	18.5	0.7
6	19.5	1.9
7	23.2	3.5
8	25.0	6.3
9	27.2	9.0
10	33.7	9.0
11	33.7	10.0
12	34.0	10.0
13	34.1	12.4
14	33.0	12.4
15	33.0	11.8
16	31.0	11.9
17	30.0	11.1
18	29.7	12.8
19	28.9	12.8
20	28.9	12.2
21	28.2	12.2
22	27.8	13.3
23	28.2	13.3
24	28.8	15.0
25	29.0	15.7
26	29.1	16.9
27	29.4	17.5
28	30.3	18.0
29	30.6	20.0
30	31.0	21.0
31	31.3	22.0
32	31.0	23.0
33	30.8	23.5
34	30.8	24.3
35	30.5	25.4
36	25.3	29.3
37	25.0	29.3
38	24.5	29.2
39	23.3	29.7
40	23.4	28.6
41	24.0	28.0
42	25.0	27.2
43	25.2	26.7
44	25.8	26.0
45	25.8	26.0
46	25.9	25.0
47	26.0	23.6
48	25.2	23.6
49	25.3	24.7
50	25.0	25.0
51	24.6	25.2
52	22.3	25.0
53	22.0	24.8
54	20.5	24.9
55	20.5	23.5
56	19.5	23.5
57	19.5	17.0
58	17.7	15.8



59	16.4	14.6
60	14.3	12.7
61	13.7	11.2
62	14.3	9.7
63	15.2	6.6
64	16.1	3.5
65	16.4	2.9
66	14.9	2.3
67	13.4	1.4
68	13.9	0.7

Columbia Basin - Map 6 Sub-Area K2 (continued)

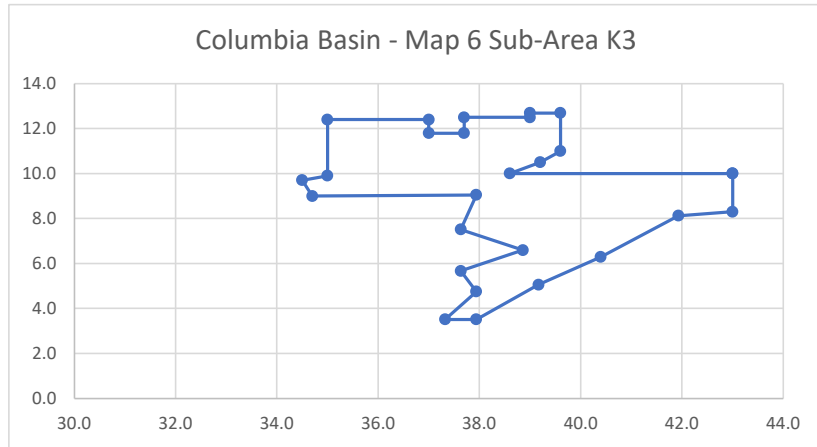
USBR/Klamath Project - AWIA Power Cost Benchmark Analysis Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area 32.40

Columbia Basin - Map 6 Sub-Area K3

Coordinate Number	X Coordinate	Y Coordinate
1	43.0	10.0
2	38.6	10.0
3	39.2	10.5
4	39.6	11.0
5	39.6	12.7
6	39.0	12.7
7	39.0	12.5
8	37.7	12.5
9	37.7	11.8
10	37.0	11.8
11	37.0	12.4
12	35.0	12.4
13	35.0	9.9
14	34.5	9.7
15	34.7	9.0
16	37.9	9.0
17	37.6	7.5
18	38.9	6.6
19	37.6	5.7
20	37.9	4.7
21	37.3	3.5
22	37.9	3.5
23	39.2	5.1
24	40.4	6.3
25	41.9	8.1
26	43.0	8.3
27	43.0	10.0



USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

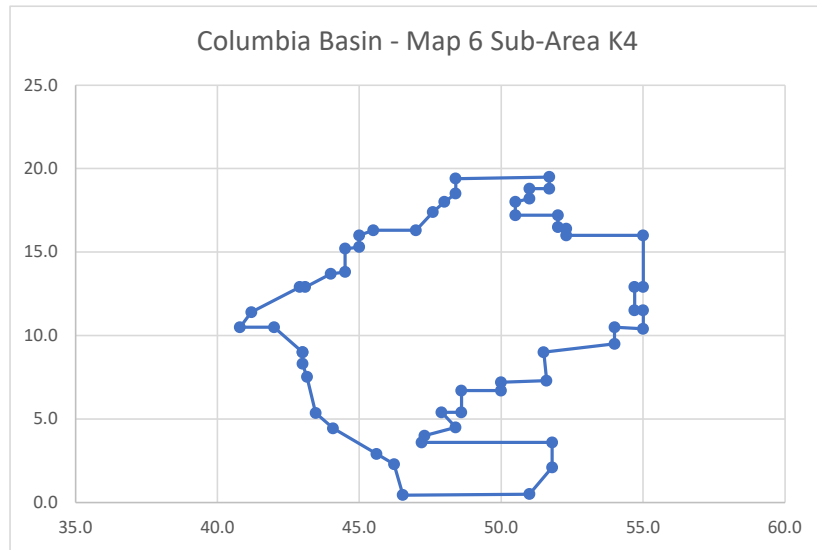
Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area 143.64

Columbia Basin - Map 6 Sub-Area K4

Coordinate Number	X Coordinate	Y Coordinate
1	43.0	9.0
2	43.0	8.3
3	43.2	7.5
4	43.5	5.4
5	44.1	4.4
6	45.6	2.9
7	46.2	2.3
8	46.5	0.4
9	51.0	0.5
10	51.8	2.1
11	51.8	3.6
12	47.2	3.6
13	47.3	4.0
14	48.4	4.5
15	47.9	5.4
16	48.6	5.4
17	48.6	6.7
18	50.0	6.7
19	50.0	7.2
20	51.6	7.3
21	51.5	9.0
22	54.0	9.5
23	54.0	10.5
24	55.0	10.4
25	55.0	11.5
26	54.7	11.5
27	54.7	12.9
28	55.0	12.9
29	55.0	16.0
30	52.3	16.0
31	52.3	16.4
32	52.0	16.5
33	52.0	17.2
34	50.5	17.2
35	50.5	18.0
36	51.0	18.2
37	51.0	18.8
38	51.7	18.8
39	51.7	19.5
40	48.4	19.4
41	48.4	18.5
42	48.0	18.0
43	47.6	17.4
44	47.0	16.3
45	45.5	16.3
46	45.0	16.0
47	45.0	15.3
48	44.5	15.2
49	44.5	13.8
50	44.0	13.7
51	43.1	12.9
52	42.9	12.9
53	41.2	11.4
54	40.8	10.5
55	42.0	10.5
56	43.0	9.0

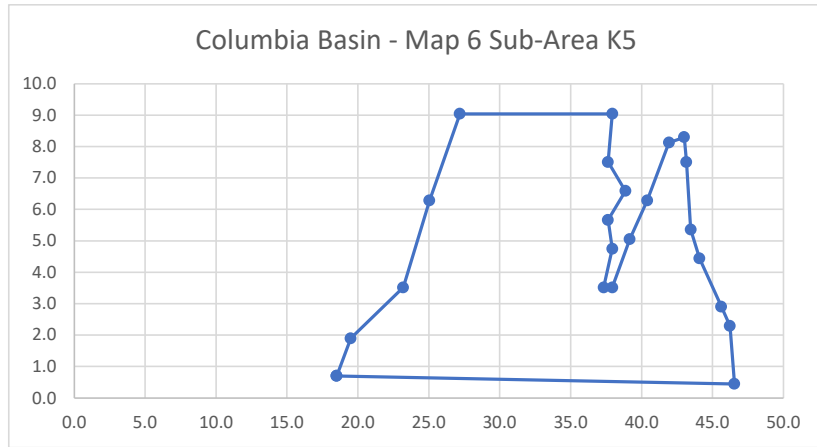


USBR/Klamath Project - AWIA Power Cost Benchmark Analysis **Columbia Basin Irrigation Project Electric Utility Load Ratio Summary**

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Total Area	163.76
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Columbia Basin - Map 6 Sub-Area K5		
Coordinate Number	X Coordinate	Y Coordinate
1	18.5	0.7
2	46.5	0.4
3	46.2	2.3
4	45.6	2.9
5	44.1	4.4
6	43.5	5.4
7	43.2	7.5
8	43.0	8.3
9	41.9	8.1
10	40.4	6.3
11	39.2	5.1
12	37.9	3.5
13	37.3	3.5
14	37.9	4.7
15	37.6	5.7
16	38.9	6.6
17	37.6	7.5
18	37.9	9.0
19	27.2	9.0
20	25.0	6.3
21	23.2	3.5
22	19.5	1.9
23	18.5	0.7



USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

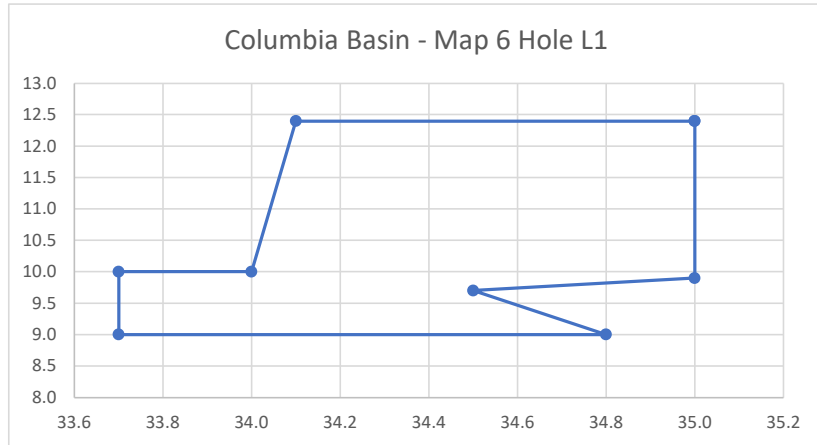
Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area	3.28
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Columbia Basin - Map 6 Hole L1

Coordinate Number	X Coordinate	Y Coordinate
1	35.0	12.4
2	34.1	12.4
3	34.0	10.0
4	33.7	10.0
5	33.7	9.0
6	34.8	9.0
7	34.5	9.7
8	35.0	9.9
9	35.0	12.4



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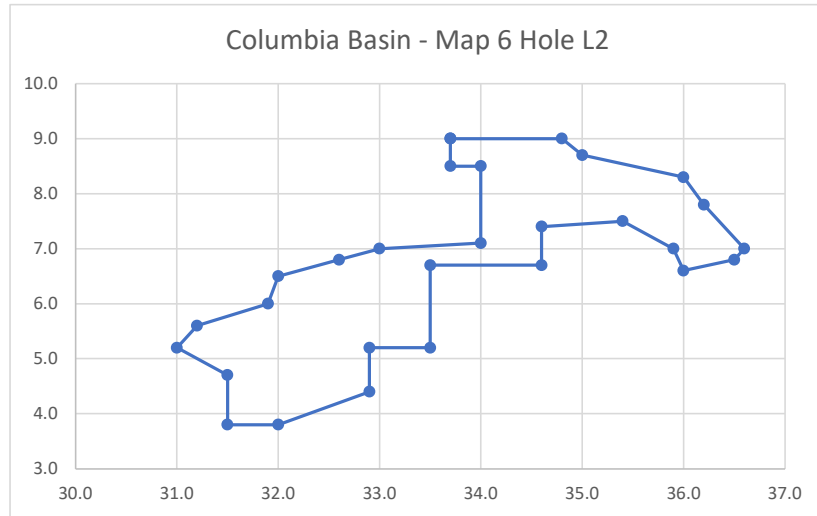
Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area	8.89
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Columbia Basin - Map 6 Hole L2

Coordinate Number	X Coordinate	Y Coordinate
1	33.7	9.0
2	33.7	8.5
3	34.0	8.5
4	34.0	7.1
5	33.0	7.0
6	32.6	6.8
7	32.0	6.5
8	31.9	6.0
9	31.2	5.6
10	31.0	5.2
11	31.5	4.7
12	31.5	3.8
13	32.0	3.8
14	32.9	4.4
15	32.9	5.2
16	33.5	5.2
17	33.5	6.7
18	34.6	6.7
19	34.6	7.4
20	35.4	7.5
21	35.9	7.0
22	36.0	6.6
23	36.5	6.8
24	36.6	7.0
25	36.2	7.8
26	36.0	8.3
27	35.0	8.7
28	34.8	9.0
29	33.7	9.0



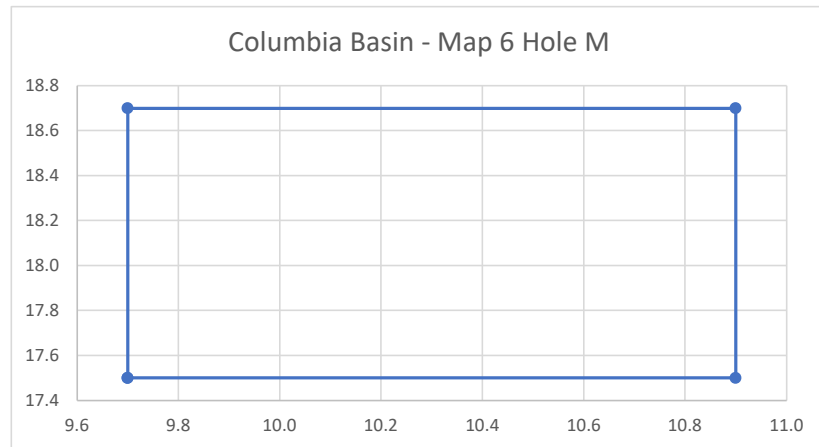
USBR/Klamath Project - AWIA Power Cost Benchmark Analysis
Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area	1.44
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Columbia Basin - Map 6 Hole M

Coordinate Number	X Coordinate	Y Coordinate
1	9.7	17.5
2	10.9	17.5
3	10.9	18.7
4	9.7	18.7
5	9.7	17.5



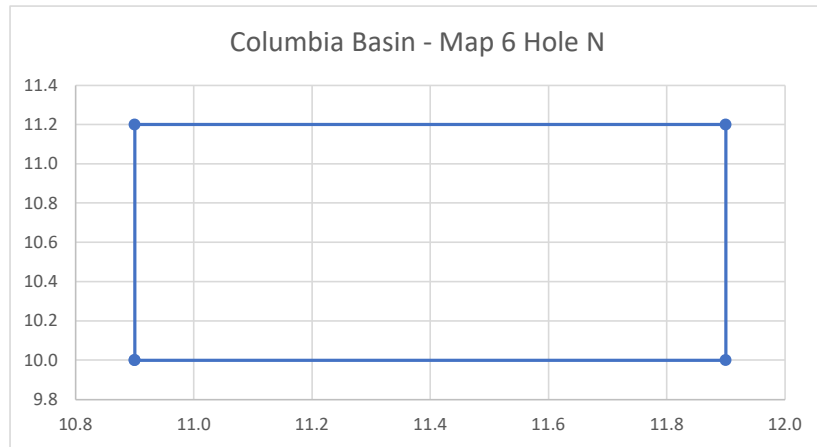
USBR/Klamath Project - AWIA Power Cost Benchmark Analysis
Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area	1.20
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Columbia Basin - Map 6 Hole N

Coordinate Number	X Coordinate	Y Coordinate
1	10.9	10.0
2	11.9	10.0
3	11.9	11.2
4	10.9	11.2
5	10.9	10.0



USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

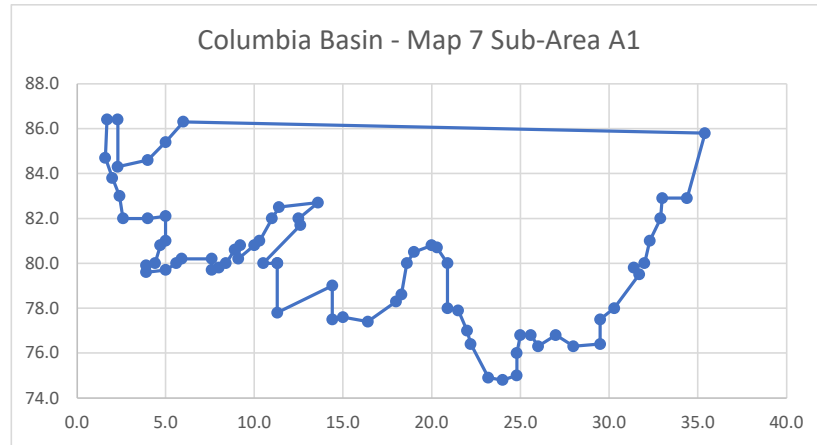
Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area 227.13

Columbia Basin - Map 7 Sub-Area A1

Coordinate Number	X Coordinate	Y Coordinate
1	11.3	80.0
2	11.3	77.8
3	14.4	79.0
4	14.4	77.5
5	15.0	77.6
6	16.4	77.4
7	18.0	78.3
8	18.3	78.6
9	18.6	80.0
10	19.0	80.5
11	20.0	80.8
12	20.3	80.7
13	20.9	80.0
14	20.9	78.0
15	21.5	77.9
16	22.0	77.0
17	22.2	76.4
18	23.2	74.9
19	24.0	74.8
20	24.8	75.0
21	24.8	76.0
22	25.0	76.8
23	25.6	76.8
24	26.0	76.3
25	27.0	76.8
26	28.0	76.3
27	29.5	76.4
28	29.5	77.5
29	30.3	78.0
30	31.7	79.5
31	31.4	79.8
32	32.0	80.0
33	32.3	81.0
34	32.9	82.0
35	33.0	82.9
36	34.4	82.9
37	35.4	85.8
38	6.0	86.3
39	5.0	85.4
40	4.0	84.6
41	2.3	84.3
42	2.3	86.4
43	1.7	86.4
44	1.6	84.7
45	2.0	83.8
46	2.4	83.0
47	2.6	82.0
48	4.0	82.0
49	5.0	82.1
50	5.0	81.0
51	4.7	80.8
52	4.4	80.0
53	3.9	79.9
54	3.9	79.6
55	5.0	79.7
56	5.6	80.0
57	5.9	80.2
58	7.6	80.2



59	7.6	79.7
60	8.0	79.8
61	8.4	80.0
62	8.9	80.6
63	9.2	80.8
64	9.1	80.2
65	10.0	80.8
66	10.3	81.0
67	11.0	82.0
68	11.4	82.5
69	13.6	82.7
70	12.5	82.0
71	12.6	81.7
72	10.5	80.0
73	11.3	80.0

Columbia Basin - Map 7 Sub-Area A1 (continued)

USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

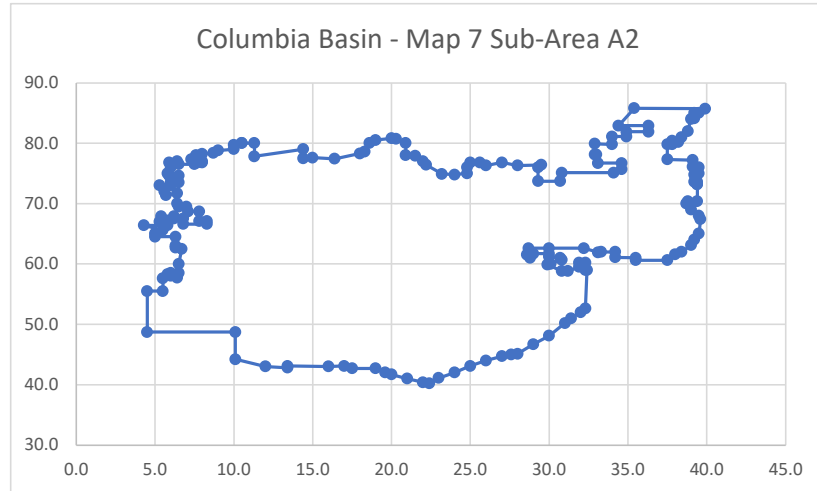
Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

Page 1/3

Total Area 1,000.08

Columbia Basin - Map 7 Sub-Area A2

Coordinate Number	X Coordinate	Y Coordinate
1	10.5	80.0
2	10.0	79.7
3	10.0	79.0
4	9.0	78.8
5	8.7	78.4
6	8.0	78.2
7	7.6	78.0
8	7.3	77.3
9	8.0	77.0
10	8.0	76.8
11	7.7	76.8
12	7.5	76.5
13	6.5	76.5
14	6.4	77.0
15	5.9	76.8
16	6.0	76.0
17	5.8	75.0
18	5.9	74.6
19	6.5	74.6
20	6.5	73.5
21	6.0	73.5
22	6.0	73.0
23	5.3	73.0
24	5.6	72.0
25	5.7	71.4
26	6.4	71.7
27	6.4	70.0
28	6.5	69.5
29	7.0	69.5
30	7.1	68.7
31	7.8	68.7
32	7.8	67.1
33	8.3	67.1
34	8.3	66.6
35	6.8	66.6
36	6.8	67.5
37	6.2	67.5
38	6.2	67.9
39	5.4	67.9
40	5.3	67.0
41	5.8	66.8
42	5.8	66.4
43	4.3	66.4
44	5.5	65.6
45	5.0	65.0
46	5.0	64.5
47	6.3	64.5
48	6.3	63.0
49	6.3	62.7
50	6.7	62.5
51	6.5	60.0
52	6.5	58.5
53	6.0	58.5
54	5.8	58.3
55	6.0	58.0
56	6.4	57.7
57	5.5	57.6
58	5.5	55.5



59	4.5	55.5
60	4.5	48.7
61	10.1	48.7
62	10.1	44.2
63	12.0	43.0
64	13.4	42.8
65	13.4	43.1
66	16.0	43.0
67	17.0	43.1
68	17.5	42.7
69	19.0	42.7
70	19.6	42.0
71	20.0	41.7
72	21.0	41.0
73	22.0	40.4
74	22.4	40.2
75	23.0	41.1
76	24.0	42.0
77	25.0	43.1
78	26.0	44.0
79	27.0	44.7
80	27.6	45.0
81	28.0	45.1
82	29.0	46.7
83	30.0	48.1
84	31.0	50.2
85	31.4	51.0
86	32.0	52.0
87	32.3	52.6
88	32.4	59.0
89	32.3	59.0
90	32.3	60.2
91	31.9	60.2
92	31.9	59.5
93	31.2	58.8
94	30.8	58.8
95	29.9	59.9
96	30.1	60.0
97	30.8	60.7
98	30.7	61.0
99	30.0	61.2
100	30.0	61.7
101	29.0	61.7
102	28.8	61.0
103	28.6	61.5
104	28.7	62.6
105	30.0	62.6
106	32.2	62.6
107	33.1	61.9
108	33.3	62.0
109	34.2	62.0
110	34.2	61.1
111	35.5	61.0
112	35.5	60.6
113	37.5	60.6
114	38.0	61.6
115	38.4	62.0
116	39.0	63.1
117	39.2	64.0
118	39.5	65.0
119	39.6	67.4
120	39.5	68.0
121	39.0	69.0
122	38.7	70.0
123	38.8	70.4
124	39.4	70.4
125	39.4	73.2
126	39.4	73.2

Columbia Basin - Map 7 Sub-Area A2 (continued)

127	39.4	73.6
128	39.2	73.6
129	39.2	74.8
130	39.5	75.0
131	39.5	76.0
132	39.1	76.1
133	39.1	77.2
134	37.5	77.3
135	37.5	79.8
136	37.8	79.8
137	37.8	80.4
138	38.2	80.2
139	38.4	81.0
140	38.8	82.0
141	39.0	84.0
142	39.2	84.1
143	39.2	85.0
144	39.5	85.0
145	39.9	85.7
146	35.4	85.8
147	34.4	82.9
148	36.3	82.9
149	36.3	81.9
150	34.9	81.9
151	34.9	81.1
152	34.0	81.1
153	34.0	79.8
154	32.9	79.9
155	32.9	78.1
156	33.0	78.1
157	33.1	76.7
158	34.6	76.7
159	34.6	75.7
160	34.1	75.1
161	30.8	75.1
162	30.7	73.7
163	29.3	73.7
164	29.3	76.0
165	29.5	76.4
166	28.0	76.3
167	27.0	76.8
168	26.0	76.3
169	25.6	76.8
170	25.0	76.8
171	24.8	76.0
172	24.8	75.0
173	24.0	74.8
174	23.2	74.9
175	22.2	76.4
176	22.0	77.0
177	21.5	77.9
178	20.9	78.0
179	20.9	80.0
180	20.3	80.7
181	20.0	80.8
182	19.0	80.5
183	18.6	80.0
184	18.3	78.6
185	18.0	78.3
186	16.4	77.4
187	15.0	77.6
188	14.4	77.5
189	14.4	79.0
190	11.3	77.8
191	11.3	80.0
192	10.5	80.0

Columbia Basin - Map 7 Sub-Area A2 (continued)

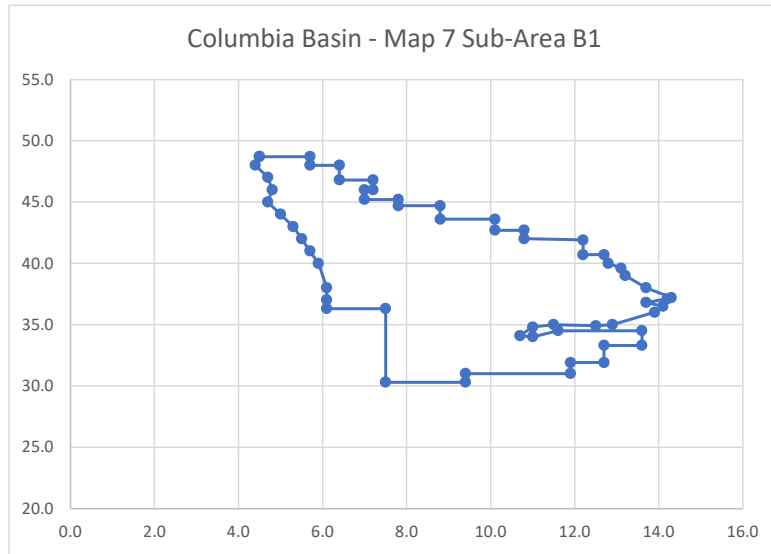
USBR/Klamath Project - AWIA Power Cost Benchmark Analysis **Columbia Basin Irrigation Project Electric Utility Load Ratio Summary**

Page 1/1

Total Area 91.28

Columbia Basin - Map 7 Sub-Area B1

Coordinate Number	X Coordinate	Y Coordinate
1	4.5	48.7
2	4.4	48.0
3	4.7	47.0
4	4.8	46.0
5	4.7	45.0
6	5.0	44.0
7	5.3	43.0
8	5.5	42.0
9	5.7	41.0
10	5.9	40.0
11	6.1	38.0
12	6.1	37.0
13	6.1	36.3
14	7.5	36.3
15	7.5	30.3
16	9.4	30.3
17	9.4	31.0
18	11.9	31.0
19	11.9	31.9
20	12.7	31.9
21	12.7	33.3
22	13.6	33.3
23	13.6	34.5
24	11.6	34.5
25	11.0	34.0
26	10.7	34.1
27	11.0	34.8
28	11.5	35.0
29	12.5	34.9
30	12.9	35.0
31	13.9	36.0
32	14.1	36.5
33	13.7	36.8
34	14.2	37.1
35	14.3	37.2
36	13.7	38.0
37	13.2	39.0
38	13.1	39.6
39	12.8	40.0
40	12.7	40.7
41	12.2	40.7
42	12.2	41.9
43	10.8	42.0
44	10.8	42.7
45	10.1	42.7
46	10.1	43.6
47	8.8	43.6
48	8.8	44.7
49	7.8	44.7
50	7.8	45.2
51	7.0	45.2
52	7.0	46.0
53	7.2	46.0
54	7.2	46.8
55	6.4	46.8
56	6.4	48.0
57	5.7	48.0
58	5.7	48.7
59	4.5	48.7



USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

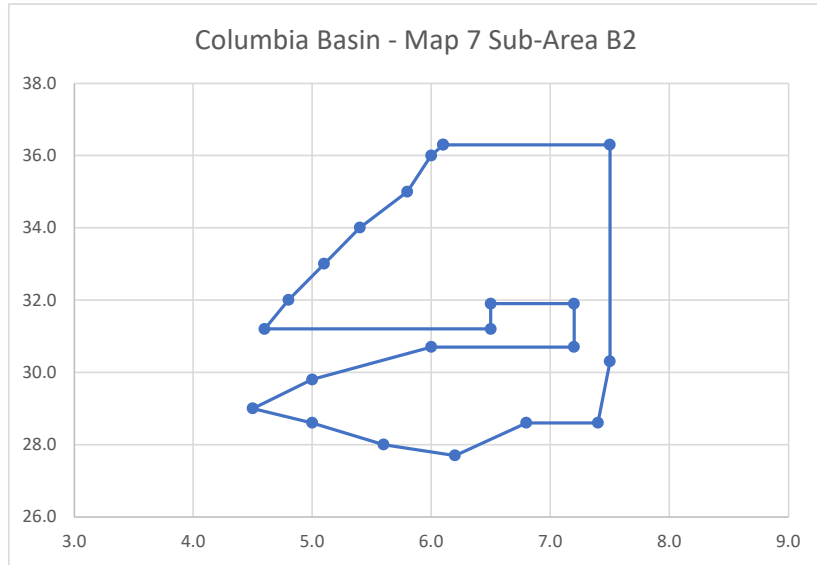
Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

Page 1/1

Total Area 16.55

Columbia Basin - Map 7 Sub-Area B2

Coordinate Number	X Coordinate	Y Coordinate
1	6.1	36.3
2	6.0	36.0
3	5.8	35.0
4	5.4	34.0
5	5.1	33.0
6	4.8	32.0
7	4.6	31.2
8	6.5	31.2
9	6.5	31.9
10	7.2	31.9
11	7.2	30.7
12	6.0	30.7
13	5.0	29.8
14	4.5	29.0
15	5.0	28.6
16	5.6	28.0
17	6.2	27.7
18	6.8	28.6
19	7.4	28.6
20	7.5	30.3
21	7.5	36.3
22	6.1	36.3



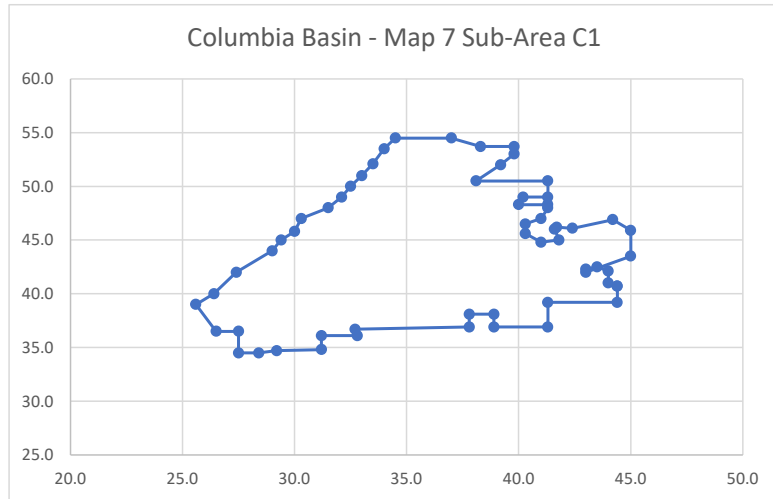
USBR/Klamath Project - AWIA Power Cost Benchmark Analysis **Columbia Basin Irrigation Project Electric Utility Load Ratio Summary**

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Total Area 220.62

Columbia Basin - Map 7 Sub-Area C1

Coordinate Number	X Coordinate	Y Coordinate
1	44.4	40.7
2	44.0	41.0
3	44.0	42.1
4	43.5	42.5
5	43.0	42.3
6	43.0	42.0
7	45.0	43.5
8	45.0	45.9
9	44.2	46.9
10	42.4	46.1
11	41.7	46.2
12	41.6	46.0
13	41.8	45.0
14	41.0	44.8
15	40.3	45.6
16	40.3	46.5
17	41.0	47.0
18	41.3	48.0
19	41.3	48.3
20	40.0	48.3
21	40.2	49.0
22	41.3	49.0
23	41.3	50.5
24	38.1	50.5
25	39.2	52.0
26	39.8	53.0
27	39.8	53.7
28	38.3	53.7
29	37.0	54.5
30	34.5	54.5
31	34.0	53.5
32	33.5	52.1
33	33.0	51.0
34	32.5	50.0
35	32.1	49.0
36	31.5	48.0
37	30.3	47.0
38	30.0	45.8
39	29.4	45.0
40	29.0	44.0
41	27.4	42.0
42	26.4	40.0
43	25.6	39.0
44	26.5	36.5
45	27.5	36.5
46	27.5	34.5
47	28.4	34.5
48	29.2	34.7
49	31.2	34.8
50	31.2	36.1
51	32.8	36.1
52	32.7	36.7
53	37.8	36.9
54	37.8	38.1
55	38.9	38.1
56	38.9	36.9
57	41.3	36.9
58	41.3	39.2
59	44.4	39.2
60	44.4	40.7

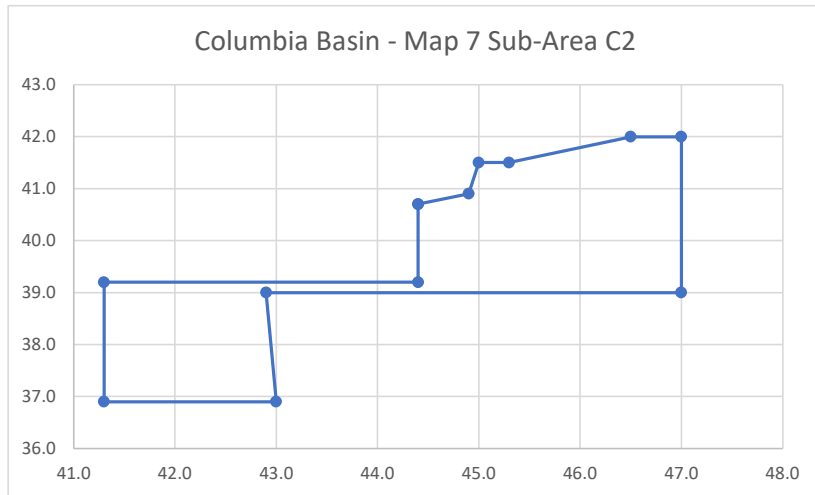


USBR/Klamath Project - AWIA Power Cost Benchmark Analysis **Columbia Basin Irrigation Project Electric Utility Load Ratio Summary**

Page 1/1

Total Area	10.76
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Columbia Basin - Map 7 Sub-Area C2		
Coordinate Number	X Coordinate	Y Coordinate
1	44.4	40.7
2	44.4	39.2
3	41.3	39.2
4	41.3	36.9
5	43.0	36.9
6	42.9	39.0
7	47.0	39.0
8	47.0	42.0
9	46.5	42.0
10	45.3	41.5
11	45.0	41.5
12	44.9	40.9
13	44.4	40.7



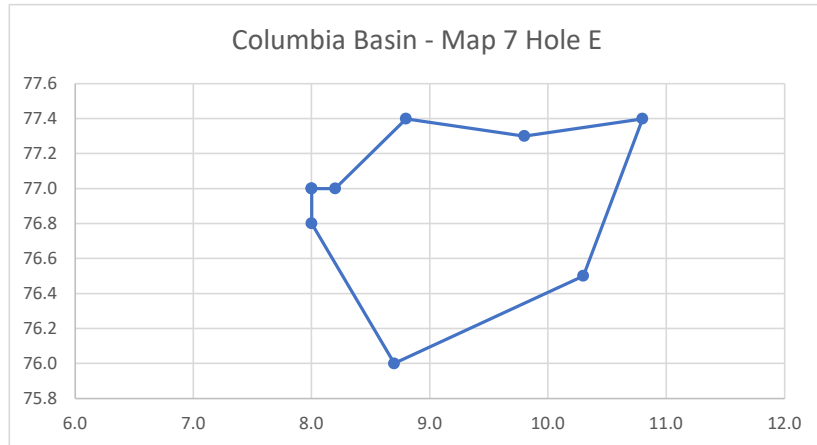
USBR/Klamath Project - AWIA Power Cost Benchmark Analysis
Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

Page 1/1

Total Area	2.47
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Columbia Basin - Map 7 Hole E

Coordinate Number	X Coordinate	Y Coordinate
1	8.0	77.0
2	8.0	76.8
3	8.7	76.0
4	10.3	76.5
5	10.8	77.4
6	9.8	77.3
7	8.8	77.4
8	8.2	77.0
9	8.0	77.0



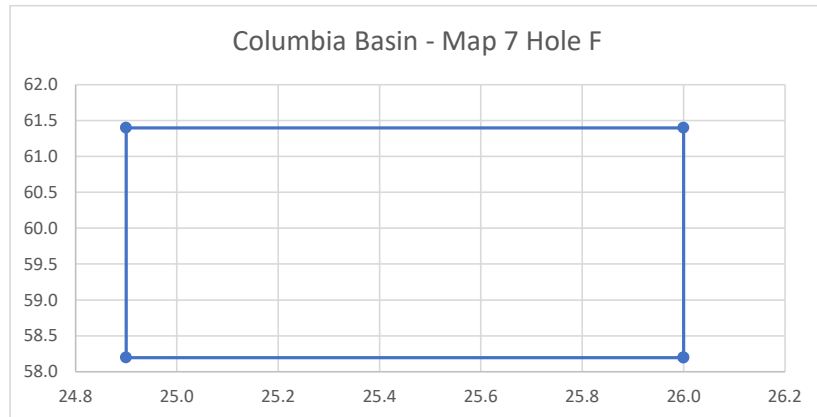
USBR/Klamath Project - AWIA Power Cost Benchmark Analysis
Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

Page 1/1

Total Area	3.52
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Columbia Basin - Map 7 Hole F

Coordinate Number	X Coordinate	Y Coordinate
1	26.0	58.2
2	26.0	61.4
3	24.9	61.4
4	24.9	58.2
5	26.0	58.2



USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

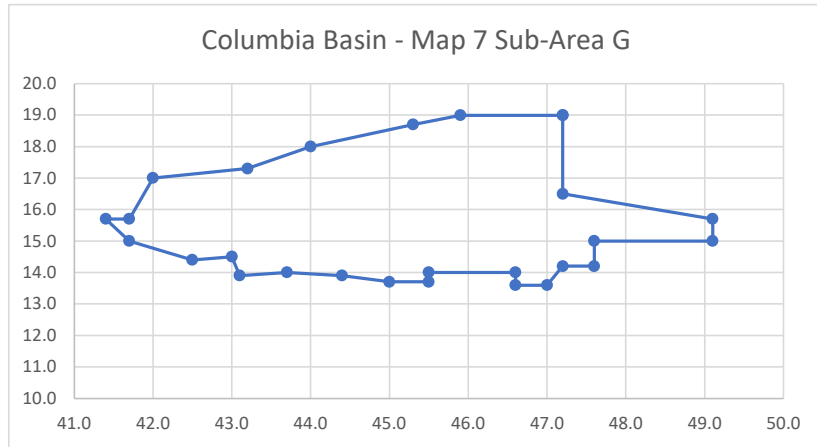
Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area	24.69
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Columbia Basin - Map 7 Sub-Area G

Coordinate Number	X Coordinate	Y Coordinate
1	47.2	19.0
2	45.9	19.0
3	45.3	18.7
4	44.0	18.0
5	43.2	17.3
6	42.0	17.0
7	41.7	15.7
8	41.4	15.7
9	41.7	15.0
10	42.5	14.4
11	43.0	14.5
12	43.1	13.9
13	43.7	14.0
14	44.4	13.9
15	45.0	13.7
16	45.5	13.7
17	45.5	14.0
18	46.6	14.0
19	46.6	13.6
20	47.0	13.6
21	47.2	14.2
22	47.6	14.2
23	47.6	15.0
24	49.1	15.0
25	49.1	15.7
26	47.2	16.5
27	47.2	19.0



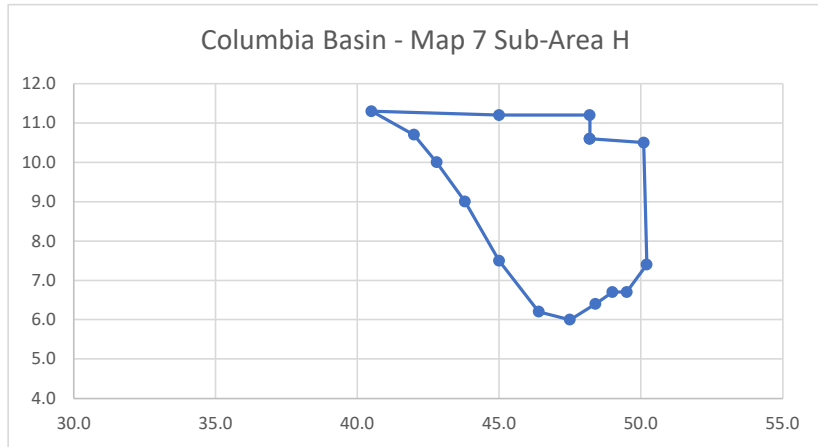
USBR/Klamath Project - AWIA Power Cost Benchmark Analysis Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area 29.13

Columbia Basin - Map 7 Sub-Area H

Coordinate Number	X Coordinate	Y Coordinate
1	48.2	10.6
2	48.2	11.2
3	45.0	11.2
4	40.5	11.3
5	42.0	10.7
6	42.8	10.0
7	43.8	9.0
8	45.0	7.5
9	46.4	6.2
10	47.5	6.0
11	48.4	6.4
12	49.0	6.7
13	49.5	6.7
14	50.2	7.4
15	50.1	10.5
16	48.2	10.6



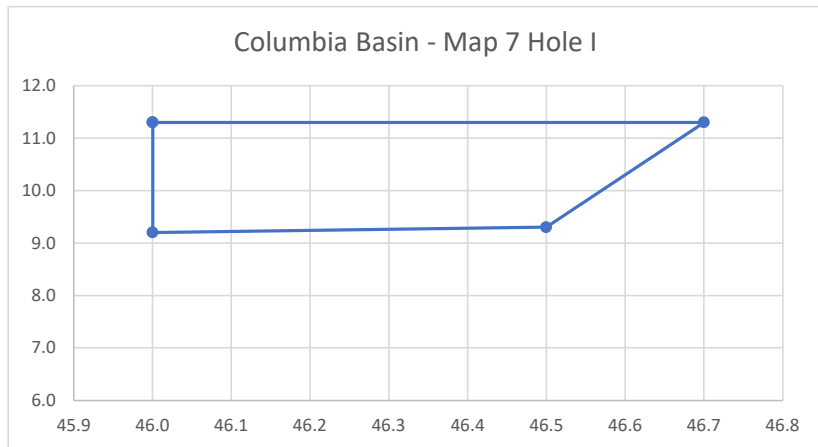
USBR/Klamath Project - AWIA Power Cost Benchmark Analysis
Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area	1.23
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Columbia Basin - Map 7 Hole I

Coordinate Number	X Coordinate	Y Coordinate
1	46.0	11.3
2	46.0	9.2
3	46.5	9.3
4	46.7	11.3
5	46.0	11.3



USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

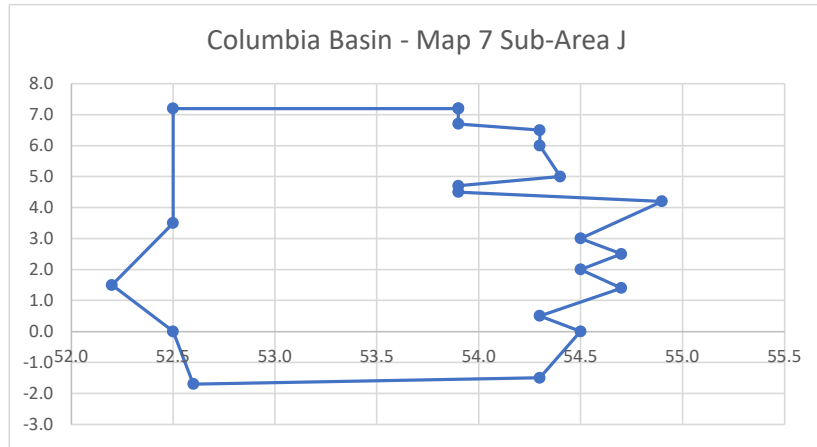
Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area 17.34

Columbia Basin - Map 7 Sub-Area J

Coordinate Number	X Coordinate	Y Coordinate
1	53.9	7.2
2	52.5	7.2
3	52.5	3.5
4	52.2	1.5
5	52.5	0.0
6	52.6	-1.7
7	54.3	-1.5
8	54.5	0.0
9	54.3	0.5
10	54.7	1.4
11	54.5	2.0
12	54.7	2.5
13	54.5	3.0
14	54.9	4.2
15	53.9	4.5
16	53.9	4.7
17	54.4	5.0
18	54.3	6.0
19	54.3	6.5
20	53.9	6.7
21	53.9	7.2



USBR/Klamath Project - AWIA Power Cost Benchmark Analysis
Columbia Basin Irrigation Project Electric Utility Load Ratio Summary

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Total Area	1.00
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Columbia Basin - Map 7 Hole K

Coordinate Number	X Coordinate	Y Coordinate
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Minidoka Project

Power Cost Sub-Area Analysis

USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

Minidoka Irrigation Project Electric Utility Load Ratio Summary Calendar Years 2017 and 2018

Electric Utility Provider	Utility Service Territory Load Ratios
Fall River Elec Coop - ID Rates	0.1227
Idaho Power - ID Rates	0.6911
PacifiCorp - ID Rates	0.1862
Total	1.0000

Notes: 1) The Utility Service Territory Load Ratios shown in the above table represent the fraction of the total 2017-2018 Minidoka Project Electric Utility irrigation load that is served by the indicated Electric Utility Provider.

USBR/Klamath Project - AWIA Power Cost Benchmark Analysis
Minidoka Irrigation Project Electric Utility Service Area Ratio and Load Ratio Calculations
Calendar Years 2017 and 2018

Minidoka Project Electric Utility Annual Irrigation Power Usage (Mwh/Yr)	365,923
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Area/Load Allocations - Step 1

Electric Utility Provider	Utility Service Territory Area (Local Square Grids)	Utility Service Territory Area Ratio	Step 1 Annual Minidoka Project Irrigation Load (Mwh)	2017/2018 Actual Total Irrigation Load (Mwh)	Is Step 1 Minidoka Load Greater than Actual Load?	Excess Load to Re-allocate to other Utilities (Mwh)
Fall River Elec Coop - ID Rates	218.15	0.1227	44,899	104,216	No	0
Idaho Power - ID Rates	1,228.92	0.6911	252,889	1,809,403	No	0
PacifiCorp - ID Rates	331.05	0.1862	68,135	533,516	No	0
Total	1,778.12	1.0000	365,923			0

Area/Load Allocations - Step 2

Electric Utility Provider	Preliminary		Final		
	Total Annual Minidoka Project Irrigation Load (Mwh)	Excess Load Reallocation (Mwh)	Total Annual Minidoka Project Irrigation Load (Mwh)	Utility Service Territory Load Ratio	Final Minidoka Load Greater than Actual Load?
Fall River Elec Coop - ID Rates	44,899	0	44,899	0.1227	No
Idaho Power - ID Rates	252,889	0	252,889	0.6911	No
PacifiCorp - ID Rates	68,135	0	68,135	0.1862	No
Total	365,923	0	365,923	1.0000	

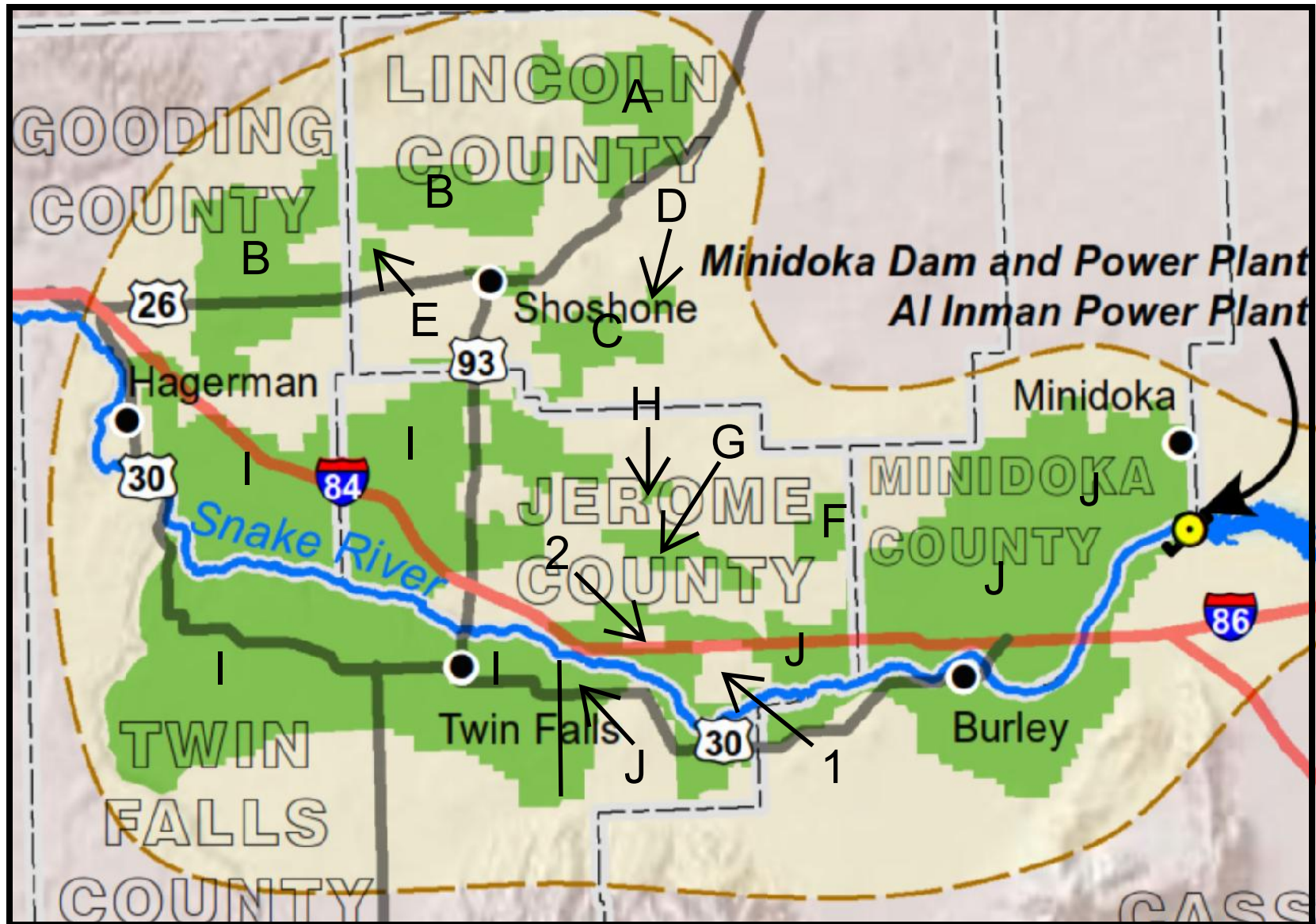
Notes: 1) The 2017-2018 actual annual irrigation load figures for Fall River Electric Cooperative, Idaho Power and PacifiCorp are these utilities' irrigation loads that are located in the state of Idaho only.

USBR/Klamath Project - AWIA Power Cost Benchmark Analysis
Minidoka Irrigation Project Electric Utility Service Territory Area Summary

Map Label	Total Area (Local Square Grids)	Electric Utility Provider	Coverage Ratio	Final Utility Sub-Area (Local Square Grids)
Minidoka West - Sub-Area A	43.32	Idaho Power - ID Rates	1.0000	43.32
Minidoka West - Sub-Area B	103.38	Idaho Power - ID Rates	1.0000	103.38
Minidoka West - Sub-Area C	19.24	Idaho Power - ID Rates	1.0000	19.24
Minidoka West - Sub-Area D	2.40	Idaho Power - ID Rates	1.0000	2.40
Minidoka West - Sub-Area E	2.00	Idaho Power - ID Rates	1.0000	2.00
Minidoka West - Sub-Area F	8.71	Idaho Power - ID Rates	1.0000	8.71
Minidoka West - Sub-Area G	12.62	Idaho Power - ID Rates	1.0000	12.62
Minidoka West - Sub-Area H	1.50	Idaho Power - ID Rates	1.0000	1.50
Minidoka West - Sub-Area I	424.11	Idaho Power - ID Rates	1.0000	424.11
Minidoka West - Sub-Area J	393.25	Idaho Power - ID Rates	1.0000	393.25
Minidoka West - Hole 1	(10.19)	Idaho Power - ID Rates	1.0000	(10.19)
Minidoka West - Hole 2	(2.30)	Idaho Power - ID Rates	1.0000	(2.30)
Minidoka Central - Sub-Area A	230.89	Idaho Power - ID Rates	1.0000	230.89
Minidoka Central - Sub-Area B	63.72	PacifiCorp - ID Rates	1.0000	63.72
Minidoka East - Sub-Area A1	129.47	PacifiCorp - ID Rates	1.0000	129.47
Minidoka East - Sub-Area A2	219.82	PacifiCorp - ID Rates	0.5000	109.91
Minidoka East - Sub-Area A2	219.82	Fall River Elec Coop - ID Rates	0.5000	109.91
Minidoka East - Sub-Area B	34.98	PacifiCorp - ID Rates	0.5000	17.49
Minidoka East - Sub-Area B	34.98	Fall River Elec Coop - ID Rates	0.5000	17.49
Minidoka East - Sub-Area C	17.77	PacifiCorp - ID Rates	0.5000	8.88
Minidoka East - Sub-Area C	17.77	Fall River Elec Coop - ID Rates	0.5000	8.88
Minidoka East - Sub-Area D	94.26	Fall River Elec Coop - ID Rates	1.0000	94.26
Minidoka East - Hole E	(10.12)	Fall River Elec Coop - ID Rates	1.0000	(10.12)
Minidoka East - Hole F	(3.85)	Fall River Elec Coop - ID Rates	1.0000	(3.85)
Minidoka East - Sub-Area G	3.16	PacifiCorp - ID Rates	0.5000	1.58
Minidoka East - Sub-Area G	3.16	Fall River Elec Coop - ID Rates	0.5000	1.58
Total Area				1,778.12

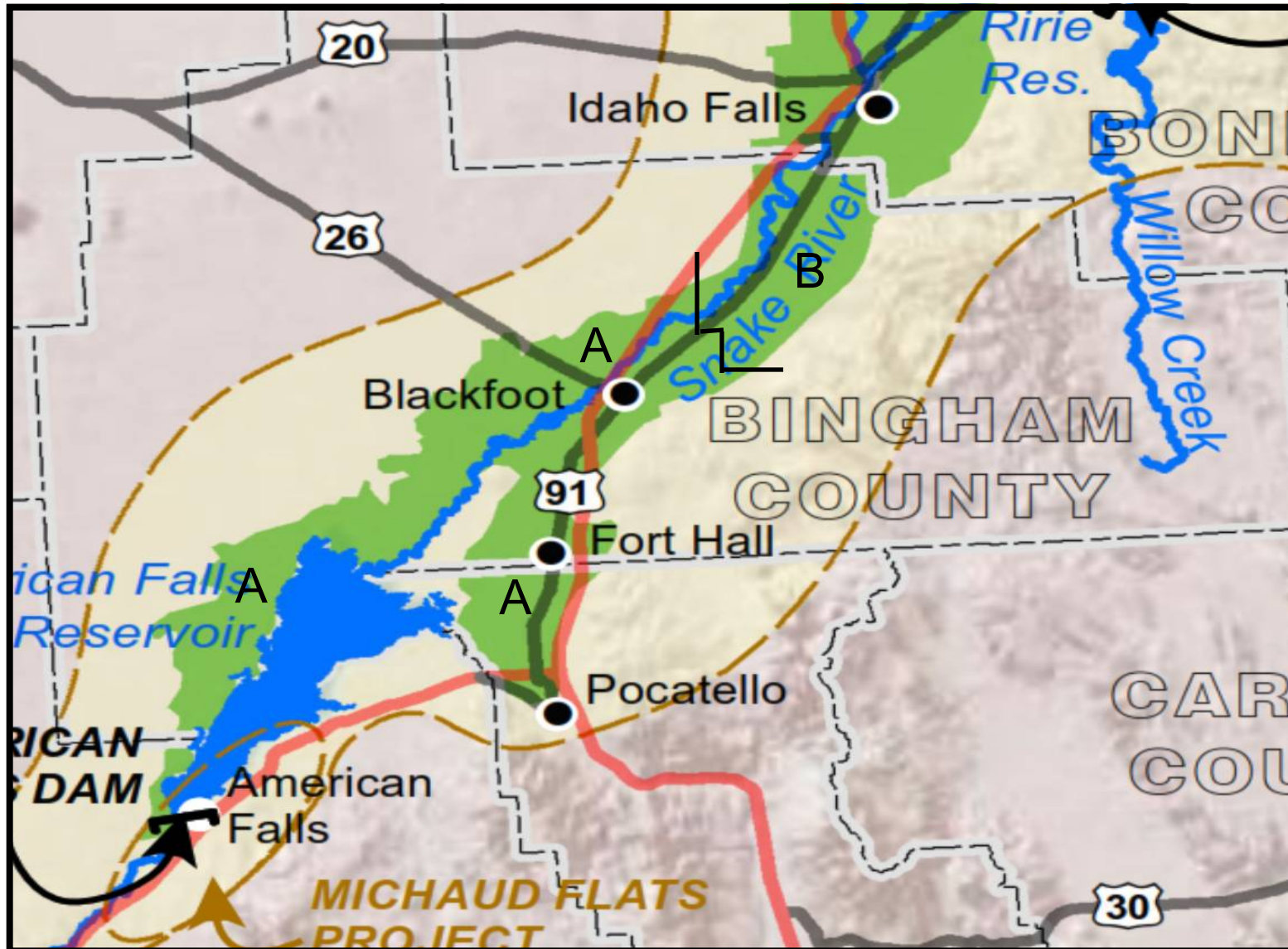
MINIDOKA PROJECT

Minidoka West Sub-Area Map



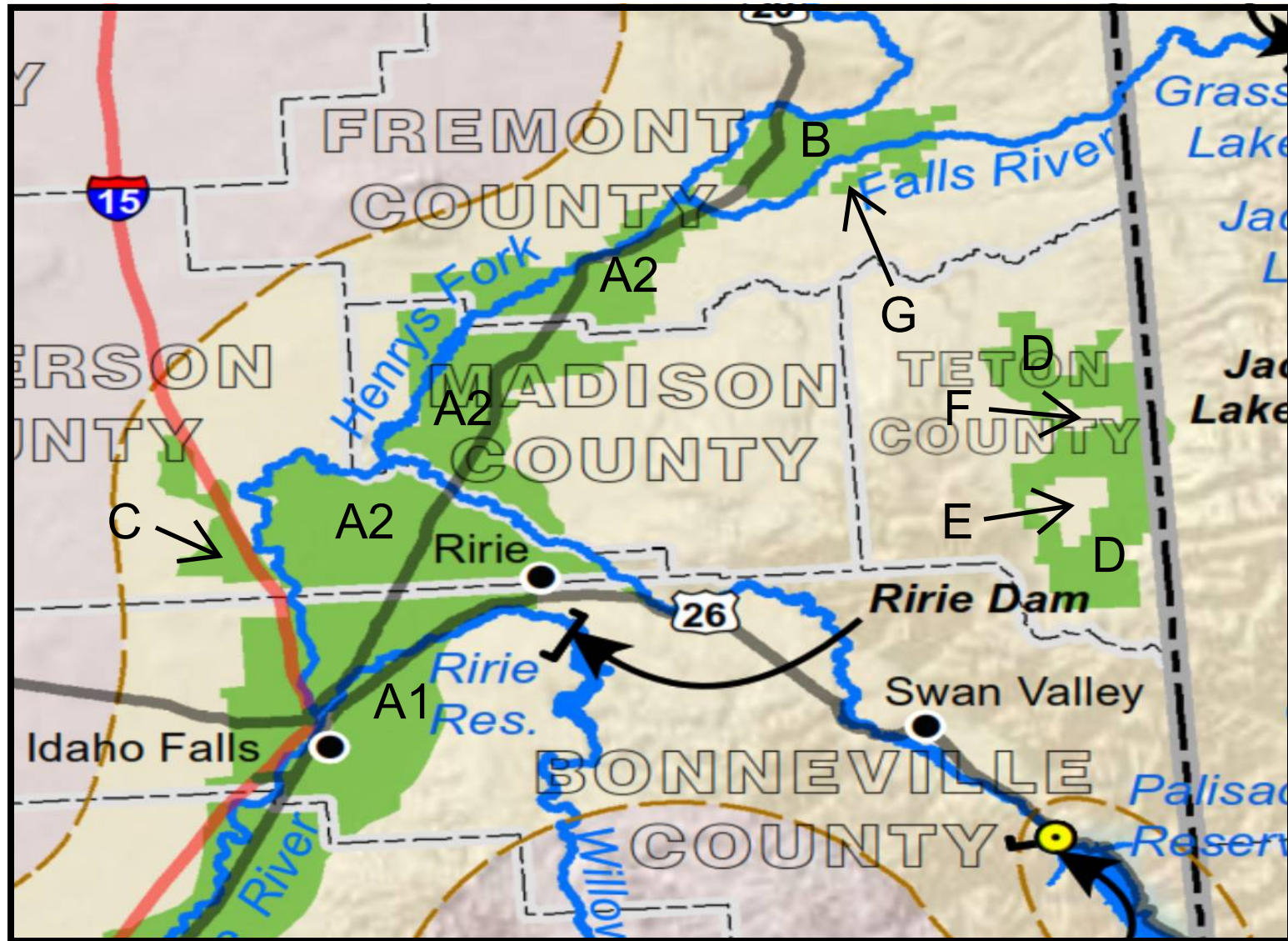
MINIDOKA PROJECT

Minidoka Central Sub-Area Map



MINIDOKA PROJECT

Minidoka East Sub-Area Map



USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

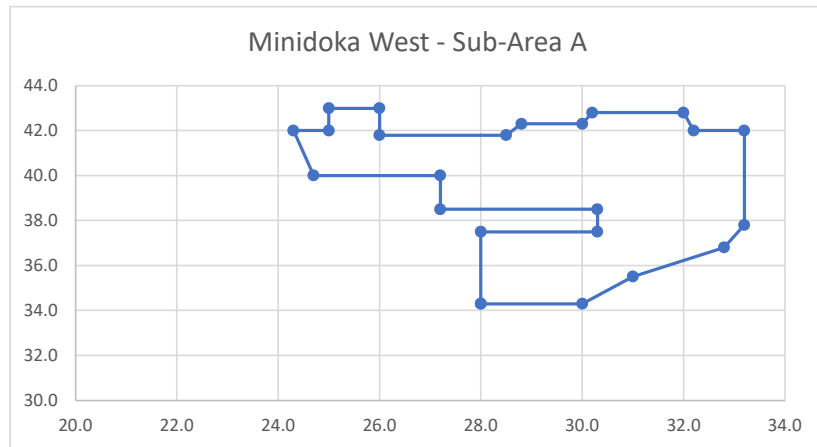
Minidoka Project Area Calculations

Page 1/1

Total Area	43.32
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Minidoka West - Sub-Area A

Coordinate Number	X Coordinate	Y Coordinate
1	28.0	34.3
2	30.0	34.3
3	31.0	35.5
4	32.8	36.8
5	33.2	37.8
6	33.2	42.0
7	32.2	42.0
8	32.0	42.8
9	30.2	42.8
10	30.0	42.3
11	28.8	42.3
12	28.5	41.8
13	26.0	41.8
14	26.0	43.0
15	25.0	43.0
16	25.0	42.0
17	24.3	42.0
18	24.7	40.0
19	27.2	40.0
20	27.2	38.5
21	30.3	38.5
22	30.3	37.5
23	28.0	37.5
24	28.0	34.3



USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

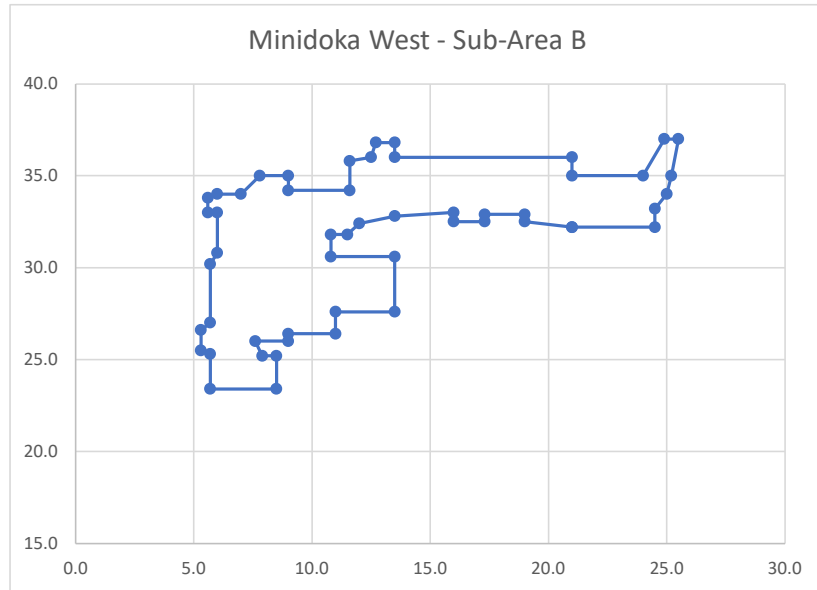
Minidoka Project Area Calculations

Page 1/1

Total Area 103.38

Minidoka West - Sub-Area B

Coordinate Number	X Coordinate	Y Coordinate
1	21.0	32.2
2	24.5	32.2
3	24.5	33.2
4	25.0	34.0
5	25.2	35.0
6	25.5	37.0
7	24.9	37.0
8	24.0	35.0
9	21.0	35.0
10	21.0	36.0
11	13.5	36.0
12	13.5	36.8
13	12.7	36.8
14	12.5	36.0
15	11.6	35.8
16	11.6	34.2
17	9.0	34.2
18	9.0	35.0
19	7.8	35.0
20	7.0	34.0
21	6.0	34.0
22	5.6	33.8
23	5.6	33.0
24	6.0	33.0
25	6.0	30.8
26	5.7	30.2
27	5.7	27.0
28	5.3	26.6
29	5.3	25.5
30	5.7	25.3
31	5.7	23.4
32	8.5	23.4
33	8.5	25.2
34	7.9	25.2
35	7.6	26.0
36	9.0	26.0
37	9.0	26.4
38	11.0	26.4
39	11.0	27.6
40	13.5	27.6
41	13.5	30.6
42	10.8	30.6
43	10.8	31.8
44	11.5	31.8
45	12.0	32.4
46	13.5	32.8
47	16.0	33.0
48	16.0	32.5
49	17.3	32.5
50	17.3	32.9
51	19.0	32.9
52	19.0	32.5
53	21.0	32.2



USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

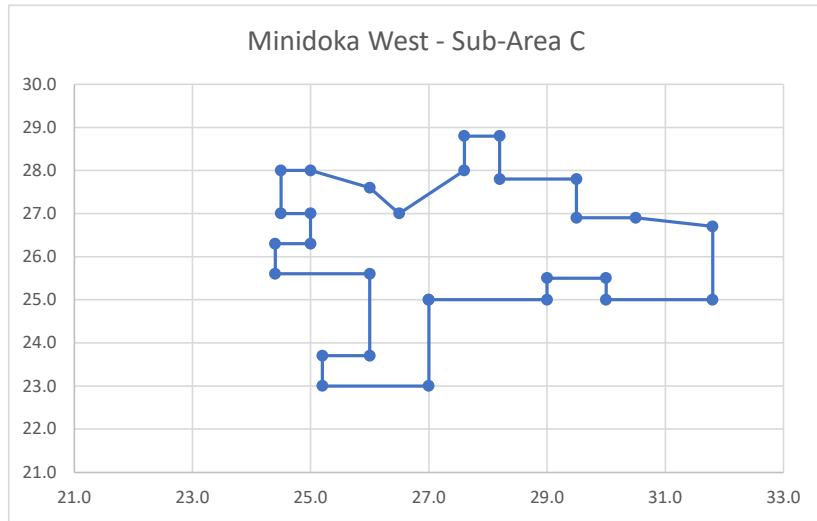
Minidoka Project Area Calculations

Page 1/1

Total Area	19.24
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Minidoka West - Sub-Area C

Coordinate Number	X Coordinate	Y Coordinate
1	27.0	25.0
2	29.0	25.0
3	29.0	25.5
4	30.0	25.5
5	30.0	25.0
6	31.8	25.0
7	31.8	26.7
8	30.5	26.9
9	29.5	26.9
10	29.5	27.8
11	28.2	27.8
12	28.2	28.8
13	27.6	28.8
14	27.6	28.0
15	26.5	27.0
16	26.0	27.6
17	25.0	28.0
18	24.5	28.0
19	24.5	27.0
20	25.0	27.0
21	25.0	26.3
22	24.4	26.3
23	24.4	25.6
24	26.0	25.6
25	26.0	23.7
26	25.2	23.7
27	25.2	23.0
28	27.0	23.0
29	27.0	25.0



USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

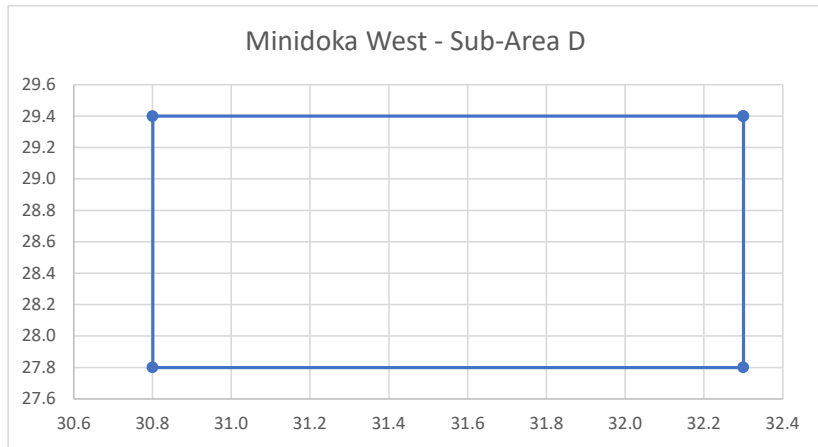
Minidoka Project Area Calculations

Page 1/1

Total Area	2.40
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Minidoka West - Sub-Area D

Coordinate Number	X Coordinate	Y Coordinate
1	32.3	29.4
2	30.8	29.4
3	30.8	27.8
4	32.3	27.8
5	32.3	29.4



USBR/Klamath Project - AWIA Power Cost Benchmark Analysis
Minidoka Project Area Calculations

Page 1/1

Total Area	2.00
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Minidoka West - Sub-Area E

Coordinate Number	X Coordinate	Y Coordinate
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USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

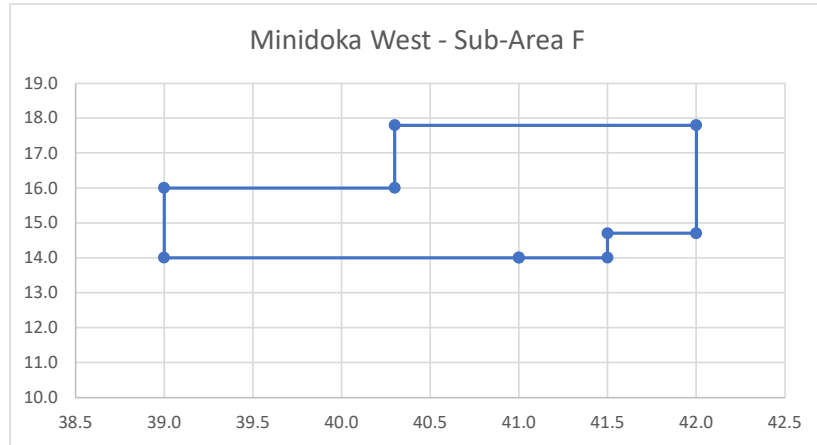
Minidoka Project Area Calculations

Page 1/1

Total Area	8.71
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Minidoka West - Sub-Area F

Coordinate Number	X Coordinate	Y Coordinate
1	41.0	14.0
2	41.5	14.0
3	41.5	14.7
4	42.0	14.7
5	42.0	17.8
6	40.3	17.8
7	40.3	16.0
8	39.0	16.0
9	39.0	14.0
10	41.0	14.0



USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

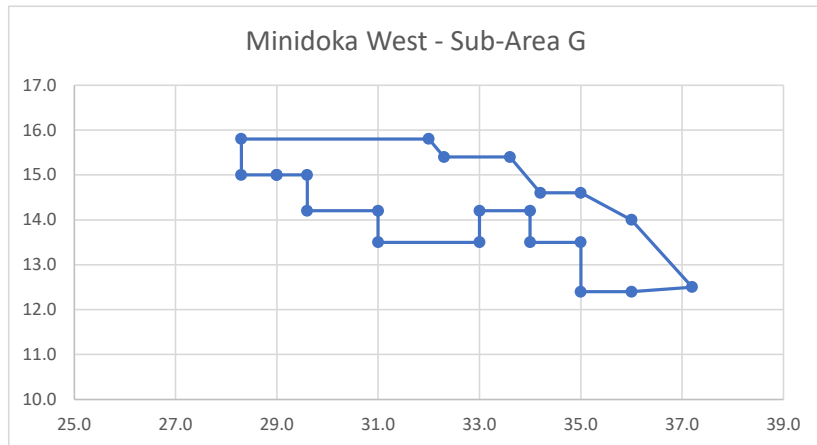
Minidoka Project Area Calculations

Page 1/1

Total Area	12.62
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Minidoka West - Sub-Area G

Coordinate Number	X Coordinate	Y Coordinate
1	29.0	15.0
2	29.6	15.0
3	29.6	14.2
4	31.0	14.2
5	31.0	13.5
6	33.0	13.5
7	33.0	14.2
8	34.0	14.2
9	34.0	13.5
10	35.0	13.5
11	35.0	12.4
12	36.0	12.4
13	37.2	12.5
14	36.0	14.0
15	35.0	14.6
16	34.2	14.6
17	33.6	15.4
18	32.3	15.4
19	32.0	15.8
20	28.3	15.8
21	28.3	15.0
22	29.0	15.0



USBR/Klamath Project - AWIA Power Cost Benchmark Analysis
Minidoka Project Area Calculations

Page 1/1

Total Area	1.50
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Minidoka West - Sub-Area H

Coordinate Number	X Coordinate	Y Coordinate
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USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

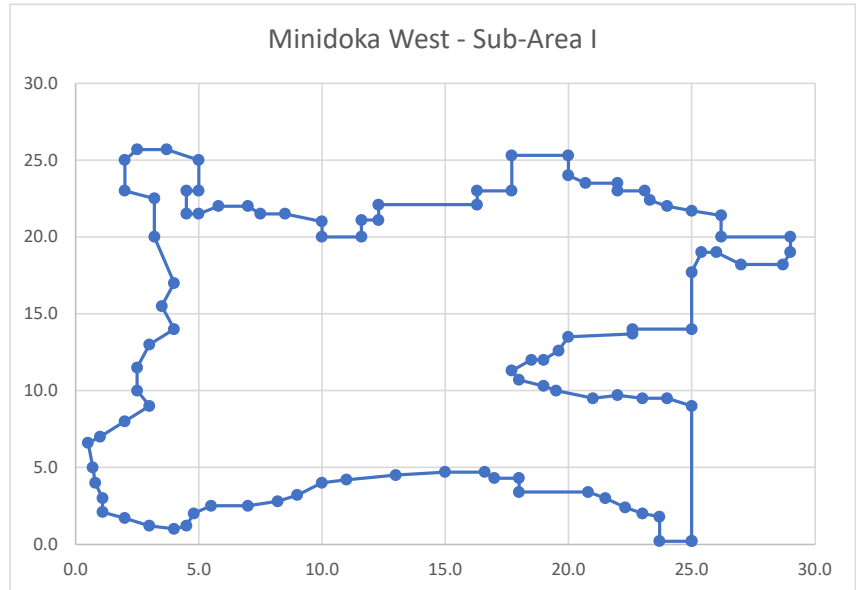
Minidoka Project Area Calculations

Page 1/2

Total Area 424.11

Minidoka West - Sub-Area I

Coordinate Number	X Coordinate	Y Coordinate
1	25.0	0.2
2	25.0	9.0
3	24.0	9.5
4	23.0	9.5
5	22.0	9.7
6	21.0	9.5
7	19.5	10.0
8	19.0	10.3
9	18.0	10.7
10	17.7	11.3
11	18.5	12.0
12	19.0	12.0
13	19.6	12.6
14	20.0	13.5
15	22.6	13.7
16	22.6	14.0
17	25.0	14.0
18	25.0	17.7
19	25.4	19.0
20	26.0	19.0
21	27.0	18.2
22	28.7	18.2
23	29.0	19.0
24	29.0	20.0
25	26.2	20.0
26	26.2	21.4
27	25.0	21.7
28	24.0	22.0
29	23.3	22.4
30	23.1	23.0
31	22.0	23.0
32	22.0	23.5
33	20.7	23.5
34	20.0	24.0
35	20.0	25.3
36	17.7	25.3
37	17.7	23.0
38	16.3	23.0
39	16.3	22.1
40	12.3	22.1
41	12.3	21.1
42	11.6	21.1
43	11.6	20.0
44	10.0	20.0
45	10.0	21.0
46	8.5	21.5
47	7.5	21.5
48	7.0	22.0
49	5.8	22.0
50	5.0	21.5
51	4.5	21.5
52	4.5	23.0
53	5.0	23.0
54	5.0	25.0
55	3.7	25.7
56	2.5	25.7
57	2.0	25.0
58	2.0	23.0



59	3.2	22.5
60	3.2	20.0
61	4.0	17.0
62	3.5	15.5
63	4.0	14.0
64	3.0	13.0
65	2.5	11.5
66	2.5	10.0
67	3.0	9.0
68	2.0	8.0
69	1.0	7.0
70	0.5	6.6
71	0.7	5.0
72	0.8	4.0
73	1.1	3.0
74	1.1	2.1
75	2.0	1.7
76	3.0	1.2
77	4.0	1.0
78	4.5	1.2
79	4.8	2.0
80	5.5	2.5
81	7.0	2.5
82	8.2	2.8
83	9.0	3.2
84	10.0	4.0
85	11.0	4.2
86	13.0	4.5
87	15.0	4.7
88	16.6	4.7
89	17.0	4.3
90	18.0	4.3
91	18.0	3.4
92	20.8	3.4
93	21.5	3.0
94	22.3	2.4
95	23.0	2.0
96	23.7	1.8
97	23.7	0.2
98	25.0	0.2

Minidoka West - Sub-Area I (continued)

USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

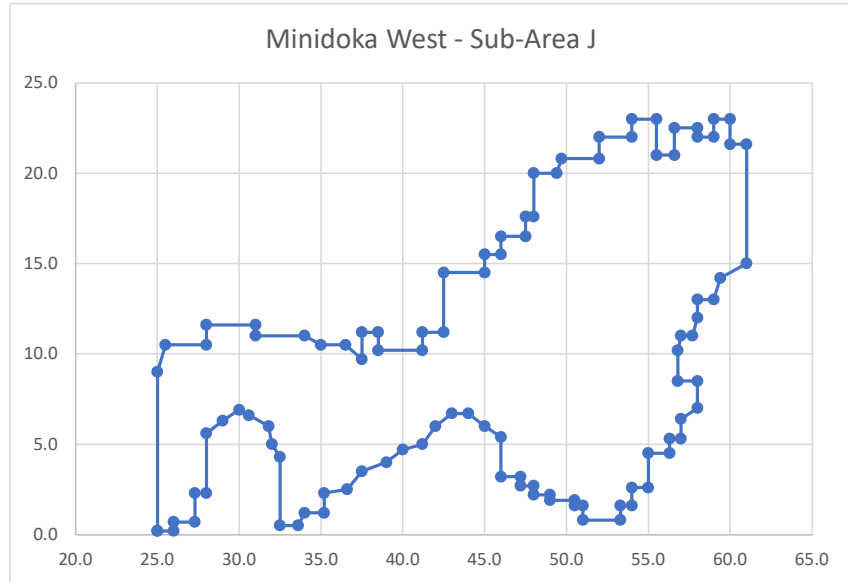
Minidoka Project Area Calculations

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Total Area 393.25

Minidoka West - Sub-Area J

Coordinate Number	X Coordinate	Y Coordinate
1	25.0	0.2
2	26.0	0.2
3	26.0	0.7
4	27.3	0.7
5	27.3	2.3
6	28.0	2.3
7	28.0	5.6
8	29.0	6.3
9	30.0	6.9
10	30.6	6.6
11	31.8	6.0
12	32.0	5.0
13	32.5	4.3
14	32.5	0.5
15	33.6	0.5
16	34.0	1.2
17	35.2	1.2
18	35.2	2.3
19	36.6	2.5
20	37.5	3.5
21	39.0	4.0
22	40.0	4.7
23	41.2	5.0
24	42.0	6.0
25	43.0	6.7
26	44.0	6.7
27	45.0	6.0
28	46.0	5.4
29	46.0	3.2
30	47.2	3.2
31	47.2	2.7
32	48.0	2.7
33	48.0	2.2
34	49.0	2.2
35	49.0	1.9
36	50.5	1.9
37	50.5	1.6
38	51.0	1.6
39	51.0	0.8
40	53.3	0.8
41	53.3	1.6
42	54.0	1.6
43	54.0	2.6
44	55.0	2.6
45	55.0	4.5
46	56.3	4.5
47	56.3	5.3
48	57.0	5.3
49	57.0	6.4
50	58.0	7.0
51	58.0	8.5
52	56.8	8.5
53	56.8	10.2
54	57.0	11.0
55	57.7	11.0
56	58.0	12.0
57	58.0	13.0
58	59.0	13.0



Minidoka West - Sub-Area J (continued)

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59	59.4	14.2
60	61.0	15.0
61	61.0	21.6
62	60.0	21.6
63	60.0	23.0
64	59.0	23.0
65	59.0	22.0
66	58.0	22.0
67	58.0	22.5
68	56.6	22.5
69	56.6	21.0
70	55.5	21.0
71	55.5	23.0
72	54.0	23.0
73	54.0	22.0
74	52.0	22.0
75	52.0	20.8
76	49.7	20.8
77	49.4	20.0
78	48.0	20.0
79	48.0	17.6
80	47.5	17.6
81	47.5	16.5
82	46.0	16.5
83	46.0	15.5
84	45.0	15.5
85	45.0	14.5
86	42.5	14.5
87	42.5	11.2
88	41.2	11.2
89	41.2	10.2
90	38.5	10.2
91	38.5	11.2
92	37.5	11.2
93	37.5	9.7
94	36.5	10.5
95	35.0	10.5
96	34.0	11.0
97	31.0	11.0
98	31.0	11.6
99	28.0	11.6
100	28.0	10.5
101	25.5	10.5
102	25.0	9.0
103	25.0	0.2

USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

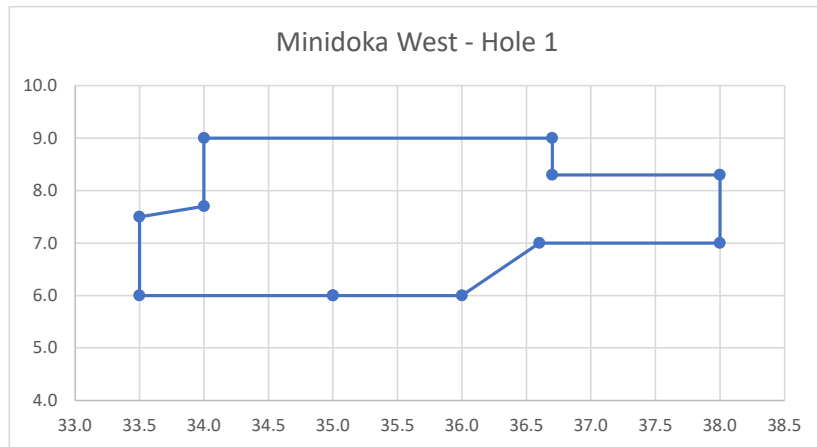
Minidoka Project Area Calculations

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Total Area	10.19
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Minidoka West - Hole 1

Coordinate Number	X Coordinate	Y Coordinate
1	35.0	6.0
2	36.0	6.0
3	36.6	7.0
4	38.0	7.0
5	38.0	8.3
6	36.7	8.3
7	36.7	9.0
8	34.0	9.0
9	34.0	7.7
10	33.5	7.5
11	33.5	6.0
12	35.0	6.0



USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

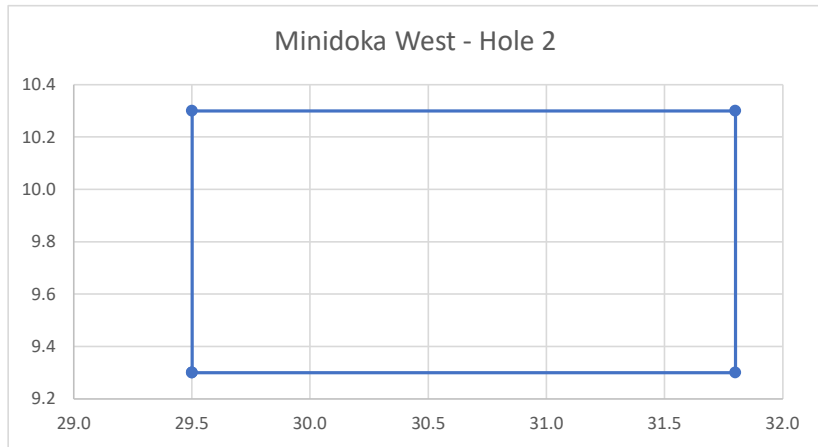
Minidoka Project Area Calculations

Page 1/1

Total Area	2.30
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Minidoka West - Hole 2

Coordinate Number	X Coordinate	Y Coordinate
1	29.5	9.3
2	31.8	9.3
3	31.8	10.3
4	29.5	10.3
5	29.5	9.3



USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

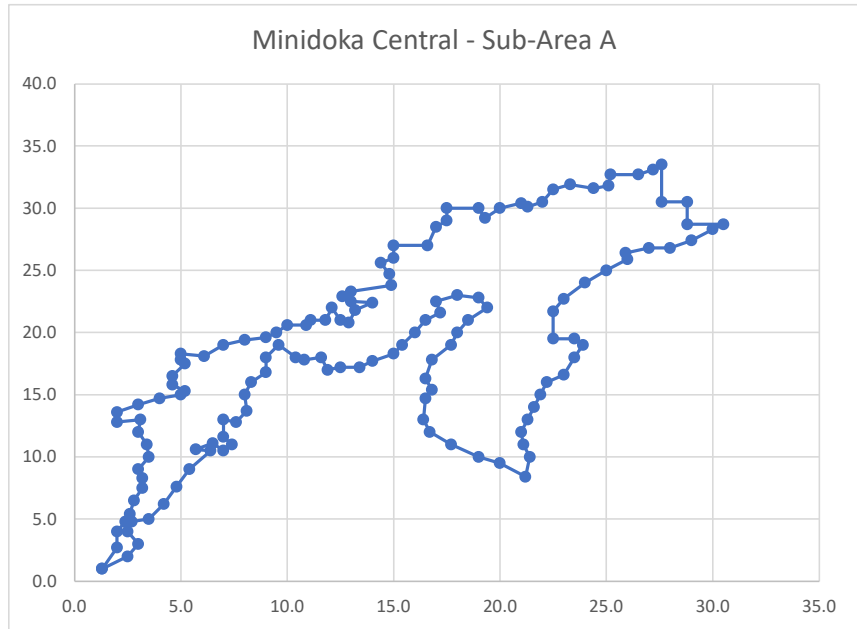
Minidoka Project Area Calculations

Page 1/3

Total Area 230.89

Minidoka Central - Sub-Area A

Coordinate Number	X Coordinate	Y Coordinate
1	1.3	1.0
2	2.5	2.0
3	3.0	3.0
4	2.5	4.0
5	2.7	4.8
6	3.5	5.0
7	4.2	6.2
8	4.8	7.6
9	5.4	9.0
10	6.4	10.5
11	5.7	10.6
12	6.5	11.1
13	7.0	10.5
14	7.4	11.0
15	7.0	11.6
16	7.0	13.0
17	7.6	12.8
18	8.1	13.7
19	8.0	15.0
20	8.3	16.0
21	9.0	16.8
22	9.0	18.0
23	9.6	19.0
24	10.4	18.0
25	10.8	17.8
26	11.6	18.0
27	11.9	17.0
28	12.5	17.2
29	13.4	17.2
30	14.0	17.7
31	15.0	18.3
32	15.4	19.0
33	16.0	20.0
34	16.5	21.0
35	17.2	21.6
36	17.0	22.5
37	18.0	23.0
38	19.0	22.8
39	19.4	22.0
40	18.5	21.0
41	18.0	20.0
42	17.7	19.0
43	16.8	17.8
44	16.5	16.3
45	16.8	15.4
46	16.5	14.7
47	16.4	13.0
48	16.7	12.0
49	17.7	11.0
50	19.0	10.0
51	20.0	9.5
52	21.2	8.4
53	21.4	10.0
54	21.1	11.0
55	21.0	12.0
56	21.3	13.0
57	21.6	14.0
58	21.9	15.0



Minidoka Central - Sub-Area A (continued)

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59	22.2	16.0
60	23.0	16.6
61	23.5	18.0
62	23.9	19.0
63	23.5	19.5
64	22.5	19.5
65	22.5	21.7
66	23.0	22.7
67	24.0	24.0
68	25.0	25.0
69	26.0	25.9
70	25.9	26.4
71	27.0	26.8
72	28.0	26.8
73	29.0	27.4
74	30.0	28.3
75	30.5	28.7
76	28.8	28.7
77	28.8	30.5
78	27.6	30.5
79	27.6	33.5
80	27.2	33.1
81	26.5	32.7
82	25.2	32.7
83	25.1	31.8
84	24.4	31.6
85	23.3	31.9
86	22.5	31.5
87	22.0	30.5
88	21.3	30.1
89	21.0	30.4
90	20.0	30.0
91	19.3	29.2
92	19.0	30.0
93	17.5	30.0
94	17.5	29.0
95	17.0	28.5
96	16.6	27.0
97	15.0	27.0
98	15.0	26.0
99	14.4	25.6
100	14.8	24.7
101	14.9	23.8
102	13.0	23.3
103	12.6	22.9
104	13.0	22.5
105	14.0	22.4
106	13.2	21.8
107	12.9	20.8
108	12.5	21.0
109	12.1	22.0
110	11.8	21.0
111	11.1	21.0
112	10.9	20.6
113	10.0	20.6
114	9.5	20.0
115	9.0	19.6
116	8.0	19.4
117	7.0	19.0
118	6.1	18.1
119	5.0	18.3
120	5.0	17.8
121	5.2	17.5
122	4.6	16.5
123	4.6	15.8
124	5.2	15.3
125	5.0	15.0
126	4.0	14.7

127	3.0	14.2	Minidoka Central - Sub-Area A (continued)
128	2.0	13.6	
129	2.0	12.8	
130	3.1	13.0	
131	3.0	12.0	
132	3.4	11.0	
133	3.5	10.0	
134	3.0	9.0	
135	3.2	8.3	
136	3.2	7.5	
137	2.8	6.5	
138	2.6	5.4	
139	2.4	4.8	
140	2.0	4.0	
141	2.0	2.7	
142	1.3	1.0	

USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

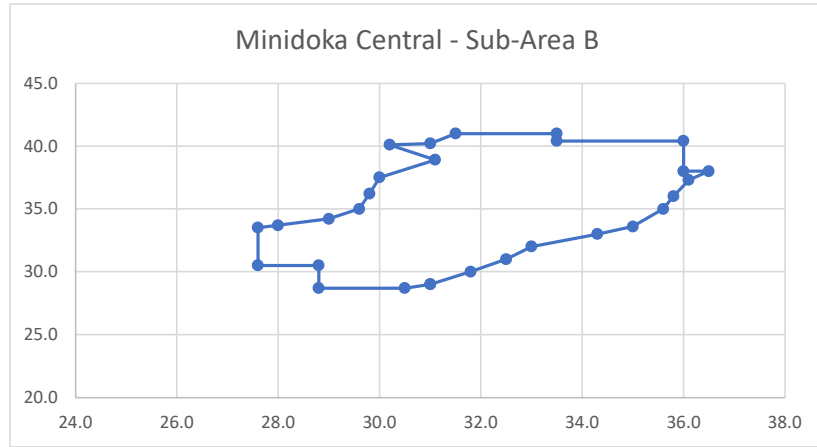
Minidoka Project Area Calculations

Page 1/1

Total Area	63.72
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Minidoka Central - Sub-Area B

Coordinate Number	X Coordinate	Y Coordinate
1	31.0	29.0
2	31.8	30.0
3	32.5	31.0
4	33.0	32.0
5	34.3	33.0
6	35.0	33.6
7	35.6	35.0
8	35.8	36.0
9	36.1	37.3
10	36.5	38.0
11	36.0	38.0
12	36.0	40.4
13	33.5	40.4
14	33.5	41.0
15	31.5	41.0
16	31.0	40.2
17	30.2	40.1
18	31.1	38.9
19	30.0	37.5
20	29.8	36.2
21	29.6	35.0
22	29.0	34.2
23	28.0	33.7
24	27.6	33.5
25	27.6	30.5
26	28.8	30.5
27	28.8	28.7
28	30.5	28.7
29	31.0	29.0



USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

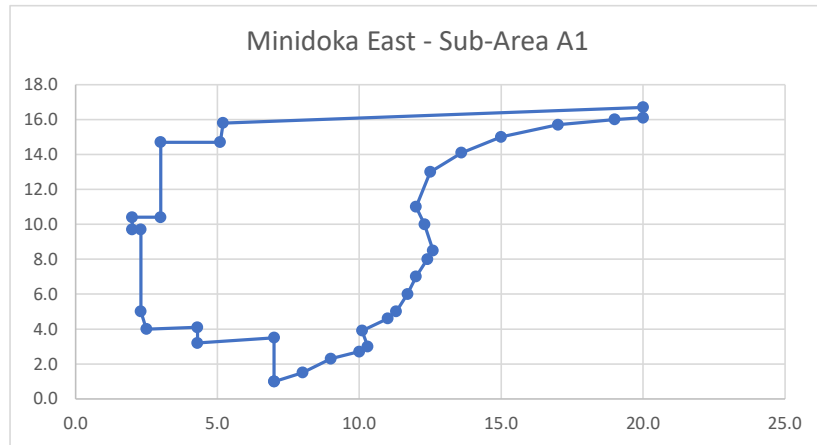
Minidoka Project Area Calculations

Page 1/1

Total Area	129.47
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Minidoka East - Sub-Area A1

Coordinate Number	X Coordinate	Y Coordinate
1	7.0	1.0
2	8.0	1.5
3	9.0	2.3
4	10.0	2.7
5	10.3	3.0
6	10.1	3.9
7	11.0	4.6
8	11.3	5.0
9	11.7	6.0
10	12.0	7.0
11	12.4	8.0
12	12.6	8.5
13	12.3	10.0
14	12.0	11.0
15	12.5	13.0
16	13.6	14.1
17	15.0	15.0
18	17.0	15.7
19	19.0	16.0
20	20.0	16.1
21	20.0	16.7
22	5.2	15.8
23	5.1	14.7
24	3.0	14.7
25	3.0	10.4
26	2.0	10.4
27	2.0	9.7
28	2.3	9.7
29	2.3	5.0
30	2.5	4.0
31	4.3	4.1
32	4.3	3.2
33	7.0	3.5
34	7.0	1.0



USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

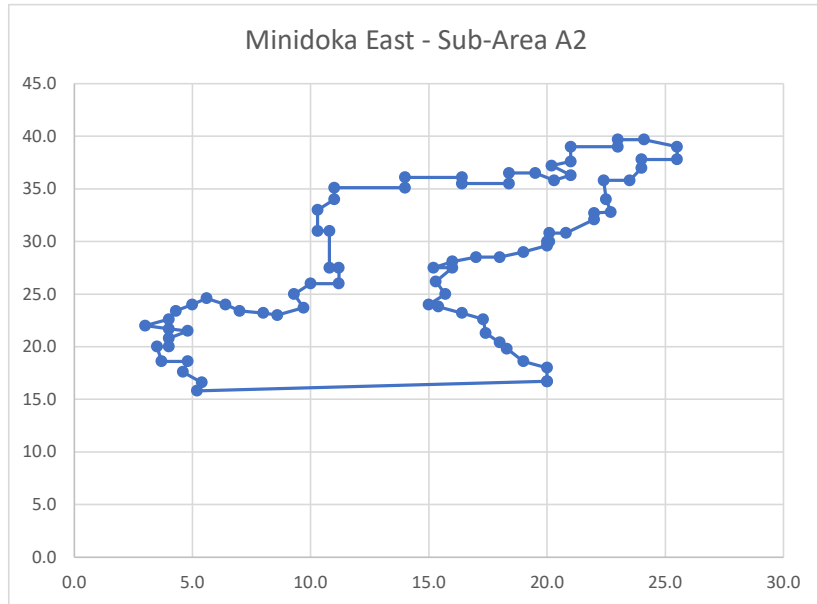
Minidoka Project Area Calculations

Page 1/2

Total Area 219.82

Minidoka East - Sub-Area A2

Coordinate Number	X Coordinate	Y Coordinate
1	20.0	16.7
2	20.0	18.0
3	19.0	18.6
4	18.3	19.8
5	18.0	20.4
6	17.4	21.3
7	17.3	22.6
8	16.4	23.2
9	15.4	23.8
10	15.0	24.0
11	15.7	25.0
12	15.3	26.2
13	16.0	27.5
14	15.2	27.5
15	16.0	28.1
16	17.0	28.5
17	18.0	28.5
18	19.0	29.0
19	20.0	29.6
20	20.0	30.0
21	20.1	30.0
22	20.1	30.8
23	20.8	30.8
24	22.0	32.1
25	22.0	32.7
26	22.7	32.8
27	22.5	34.0
28	22.4	35.8
29	23.5	35.8
30	24.0	37.0
31	24.0	37.8
32	25.5	37.8
33	25.5	39.0
34	24.1	39.7
35	23.0	39.7
36	23.0	39.0
37	21.0	39.0
38	21.0	37.6
39	20.2	37.2
40	21.0	36.3
41	20.3	35.8
42	19.5	36.5
43	18.4	36.5
44	18.4	35.5
45	16.4	35.5
46	16.4	36.1
47	14.0	36.1
48	14.0	35.1
49	11.0	35.1
50	11.0	34.0
51	10.3	33.0
52	10.3	31.0
53	10.8	31.0
54	10.8	27.5
55	11.2	27.5
56	11.2	26.0
57	10.0	26.0
58	9.3	25.0



59	9.7	23.7
60	8.6	23.0
61	8.0	23.2
62	7.0	23.4
63	6.4	24.0
64	5.6	24.6
65	5.0	24.0
66	4.3	23.4
67	4.0	22.6
68	3.0	22.0
69	4.0	21.7
70	4.8	21.5
71	4.0	20.8
72	4.0	20.0
73	3.5	20.0
74	3.7	18.6
75	4.8	18.6
76	4.6	17.6
77	5.4	16.6
78	5.2	15.8
79	20.0	16.7

Minidoka East - Sub-Area A2 (continued)

USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

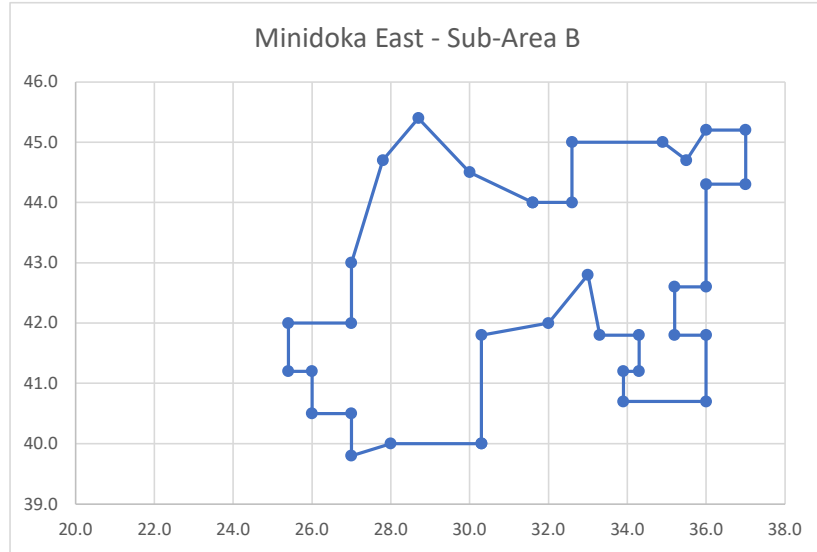
Minidoka Project Area Calculations

Page 1/1

Total Area	34.98
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Minidoka East - Sub-Area B

Coordinate Number	X Coordinate	Y Coordinate
1	30.3	40.0
2	30.3	41.8
3	32.0	42.0
4	33.0	42.8
5	33.3	41.8
6	34.3	41.8
7	34.3	41.2
8	33.9	41.2
9	33.9	40.7
10	36.0	40.7
11	36.0	41.8
12	35.2	41.8
13	35.2	42.6
14	36.0	42.6
15	36.0	44.3
16	37.0	44.3
17	37.0	45.2
18	36.0	45.2
19	35.5	44.7
20	34.9	45.0
21	32.6	45.0
22	32.6	44.0
23	31.6	44.0
24	31.6	44.0
25	30.0	44.5
26	28.7	45.4
27	27.8	44.7
28	27.0	43.0
29	27.0	42.0
30	25.4	42.0
31	25.4	41.2
32	26.0	41.2
33	26.0	40.5
34	27.0	40.5
35	27.0	39.8
36	28.0	40.0
37	30.3	40.0



USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

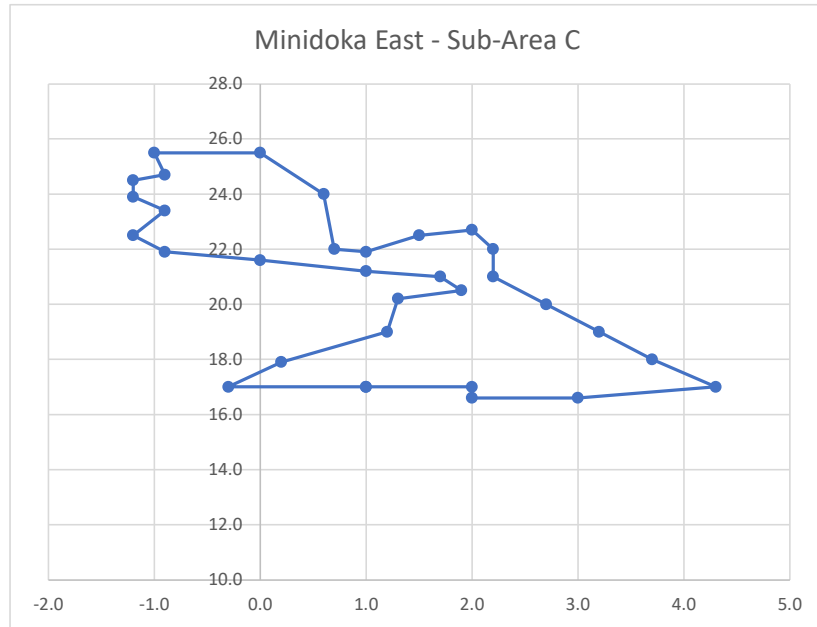
Minidoka Project Area Calculations

Page 1/1

Total Area	17.77
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Minidoka East - Sub-Area C

Coordinate Number	X Coordinate	Y Coordinate
1	1.0	17.0
2	2.0	17.0
3	2.0	16.6
4	3.0	16.6
5	4.3	17.0
6	3.7	18.0
7	3.2	19.0
8	2.7	20.0
9	2.2	21.0
10	2.2	22.0
11	2.0	22.7
12	1.5	22.5
13	1.0	21.9
14	0.7	22.0
15	0.6	24.0
16	0.0	25.5
17	-1.0	25.5
18	-0.9	24.7
19	-1.2	24.5
20	-1.2	23.9
21	-0.9	23.4
22	-1.2	22.5
23	-0.9	21.9
24	0.0	21.6
25	1.0	21.2
26	1.7	21.0
27	1.9	20.5
28	1.3	20.2
29	1.2	19.0
30	0.2	17.9
31	-0.3	17.0
32	1.0	17.0



USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

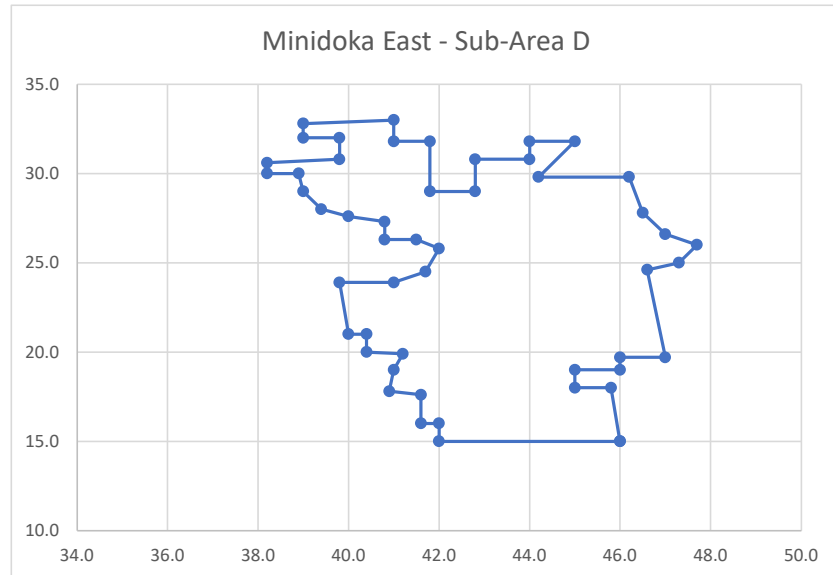
Minidoka Project Area Calculations

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Total Area 94.26

Minidoka East - Sub-Area D

Coordinate Number	X Coordinate	Y Coordinate
1	46.0	15.0
2	45.8	18.0
3	45.0	18.0
4	45.0	19.0
5	46.0	19.0
6	46.0	19.7
7	47.0	19.7
8	46.6	24.6
9	47.3	25.0
10	47.7	26.0
11	47.0	26.6
12	46.5	27.8
13	46.2	29.8
14	44.2	29.8
15	45.0	31.8
16	44.0	31.8
17	44.0	30.8
18	42.8	30.8
19	42.8	29.0
20	41.8	29.0
21	41.8	31.8
22	41.0	31.8
23	41.0	33.0
24	39.0	32.8
25	39.0	32.0
26	39.8	32.0
27	39.8	30.8
28	38.2	30.6
29	38.2	30.0
30	38.9	30.0
31	39.0	29.0
32	39.4	28.0
33	40.0	27.6
34	40.8	27.3
35	40.8	26.3
36	41.5	26.3
37	42.0	25.8
38	41.7	24.5
39	41.0	23.9
40	39.8	23.9
41	40.0	21.0
42	40.4	21.0
43	40.4	20.0
44	41.2	19.9
45	41.0	19.0
46	40.9	17.8
47	41.6	17.6
48	41.6	16.0
49	42.0	16.0
50	42.0	15.0
51	46.0	15.0



USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

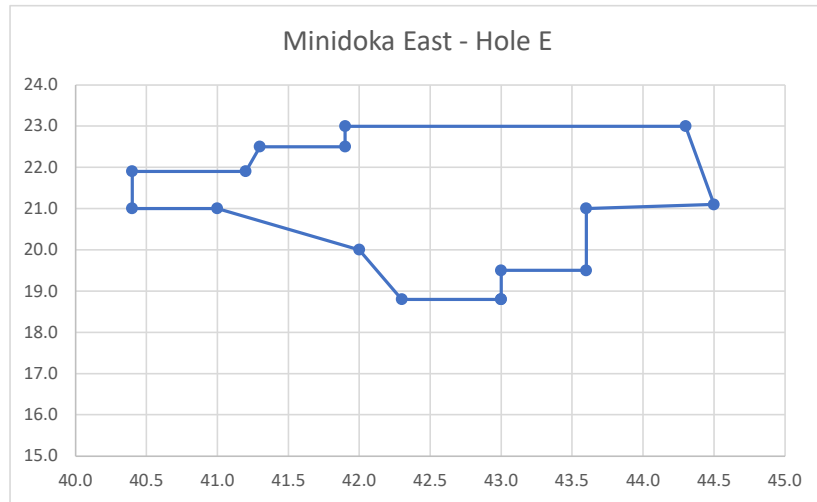
Minidoka Project Area Calculations

Page 1/1

Total Area	10.12
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Minidoka East - Hole E

Coordinate Number	X Coordinate	Y Coordinate
1	43.0	18.8
2	43.0	19.5
3	43.6	19.5
4	43.6	21.0
5	44.5	21.1
6	44.3	23.0
7	41.9	23.0
8	41.9	22.5
9	41.3	22.5
10	41.2	21.9
11	40.4	21.9
12	40.4	21.0
13	41.0	21.0
14	42.0	20.0
15	42.3	18.8
16	43.0	18.8



USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

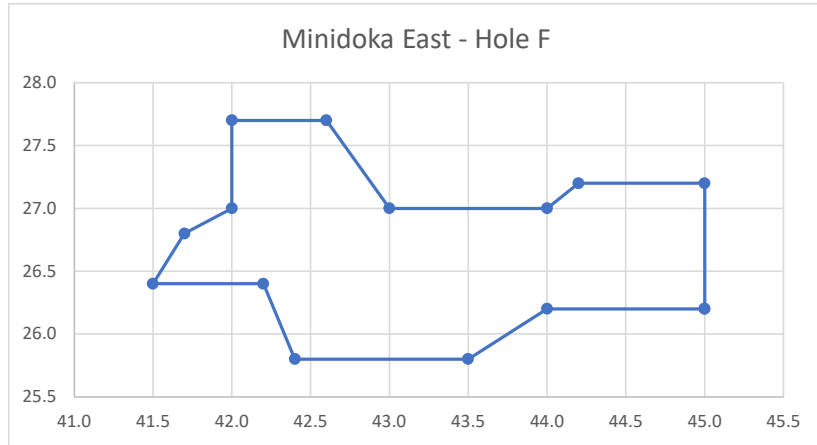
Minidoka Project Area Calculations

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Total Area	3.85
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Minidoka East - Hole F

Coordinate Number	X Coordinate	Y Coordinate
1	45.0	26.2
2	45.0	27.2
3	44.2	27.2
4	44.0	27.0
5	43.0	27.0
6	42.6	27.7
7	42.0	27.7
8	42.0	27.0
9	41.7	26.8
10	41.5	26.4
11	42.2	26.4
12	42.4	25.8
13	43.5	25.8
14	44.0	26.2
15	45.0	26.2



USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

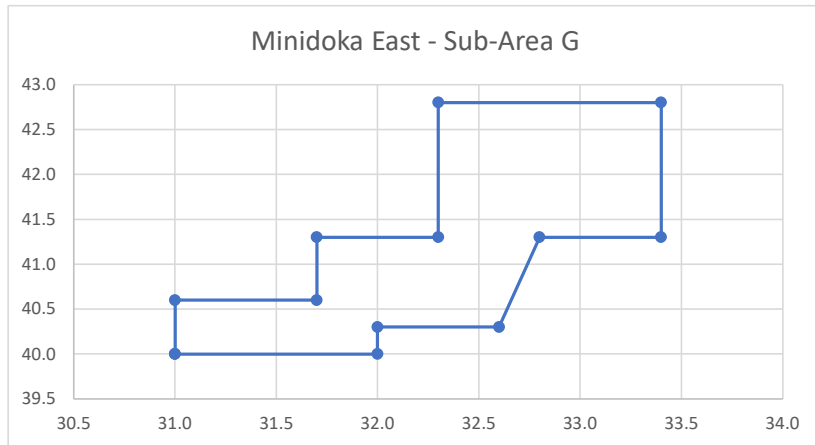
Minidoka Project Area Calculations

Page 1/1

Total Area	3.16
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Minidoka East - Sub-Area G

Coordinate Number	X Coordinate	Y Coordinate
1	31.0	40.0
2	32.0	40.0
3	32.0	40.3
4	32.6	40.3
5	32.8	41.3
6	33.4	41.3
7	33.4	42.8
8	32.3	42.8
9	32.3	41.3
10	31.7	41.3
11	31.7	40.6
12	31.0	40.6
13	31.0	40.0



Owyhee Project

Power Cost Sub-Area Analysis

USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

Owyhee Irrigation Project Electric Utility Service Area Ratios
Calendar Years 2017 and 2018

Electric Utility Provider	Utility Service Territory Load Ratios
Idaho Power - ID Rates	0.2948
Idaho Power - OR Rates	0.7052
Total	1.0000

Notes: 1) The Utility Service Territory Load Ratios shown in the above table represent the fraction of the total 2017-2018 Owyhee Project Electric Utility irrigation load that is served by the indicated Electric Utility Provider.

USBR/Klamath Project - AWIA Power Cost Benchmark Analysis
Owyhee Irrigation Project Electric Utility Service Area Ratio and Load Ratio Calculations
Calendar Years 2017 and 2018

Owyhee Project Electric Utility Annual Irrigation Power Usage (Mwh/Yr)	36,179
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Area/Load Allocations - Step 1

Electric Utility Provider	Utility Service Territory Area (Local Square Grids)	Utility Service Territory Area Ratio	Step 1 Annual Owyhee Project Irrigation Load (Mwh)	2017/2018 Actual Total Irrigation Load (Mwh)	Is Step 1 Owyhee Load Greater than Actual Load?	Excess Load to Re-allocate to other Utilities (Mwh)
Idaho Power - ID Rates	235.66	0.2948	10,666	1,809,403	No	0
Idaho Power - OR Rates	563.83	0.7052	25,513	64,097	No	0
Total	799.49	1.0000	36,179			0

Area/Load Allocations - Step 2

Electric Utility Provider	Preliminary		Final		
	Total Annual Owyhee Project Irrigation Load (Mwh)	Excess Load Reallocation (Mwh)	Total Annual Owyhee Project Irrigation Load (Mwh)	Utility Service Territory Load Ratio	Final Owyhee Load Greater than Actual Load?
Idaho Power - ID Rates	10,666	0	10,666	0.2948	No
Idaho Power - OR Rates	25,513	0	25,513	0.7052	No
Total	36,179	0	36,179	1.0000	

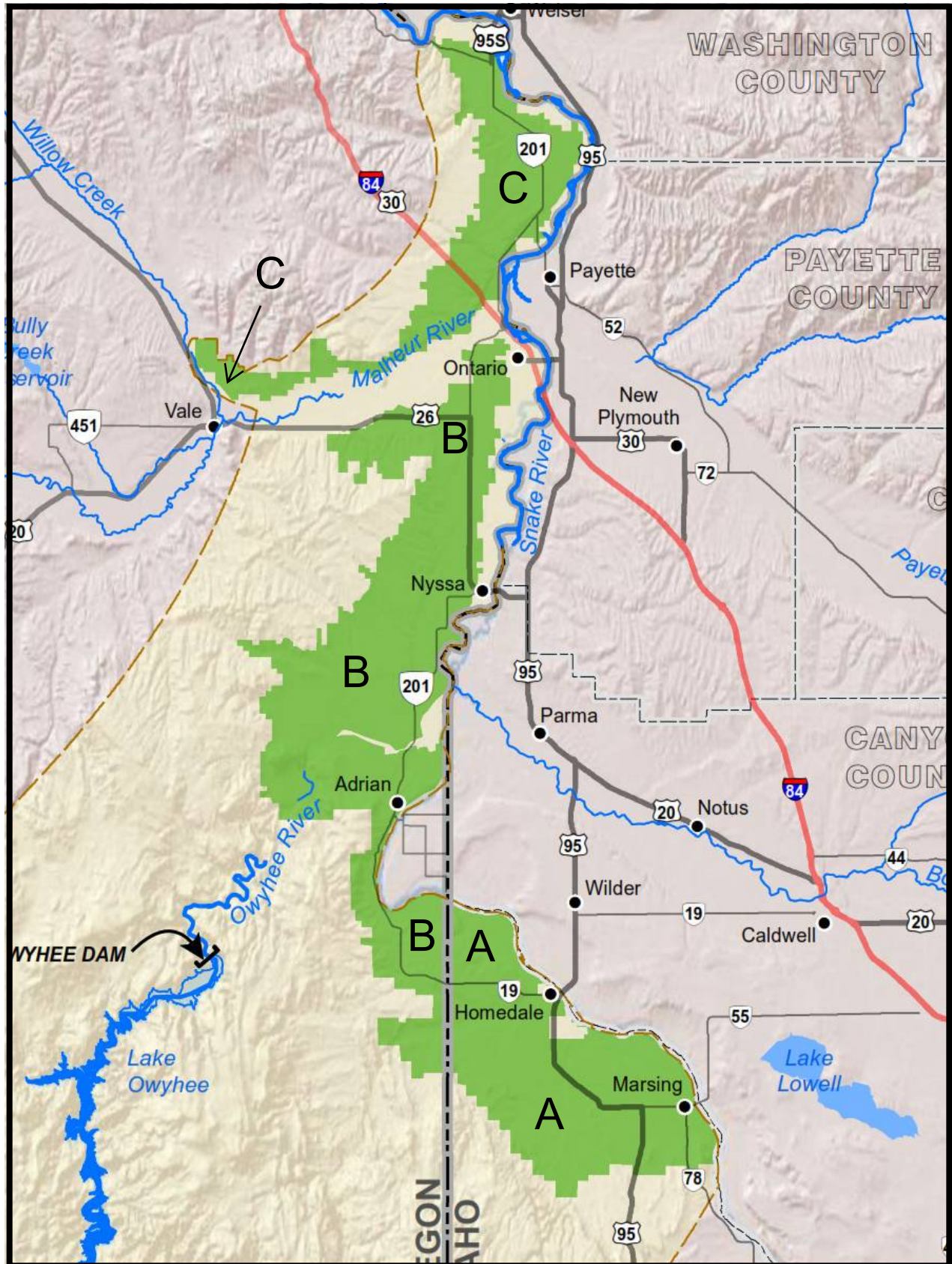
Notes: 1) The 2017-2018 actual annual irrigation load figures for Idaho Power is this utility's irrigation loads that are located in the states of Idaho and Oregon.

USBR/Klamath Project - AWIA Power Cost Benchmark Analysis **Owyhee Irrigation Project Electric Utility Service Territory Area Calculations**

Map Label	Total Area (Local Square Grids)	Electric Utility Provider	Coverage Ratio	Final Utility Sub-Area (Local Square Grids)
Owyhee Idaho Sub-Area	235.66	Idaho Power - ID Rates	1.00	235.66
Owyhee Oregon Sub-Area A	410.13	Idaho Power - OR Rates	1.00	410.13
Owyhee Oregon Sub-Area B	153.70	Idaho Power - OR Rates	1.00	153.70
Total Area				799.49

OWYHEE PROJECT

Idaho and Oregon Sub-Area Map



USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

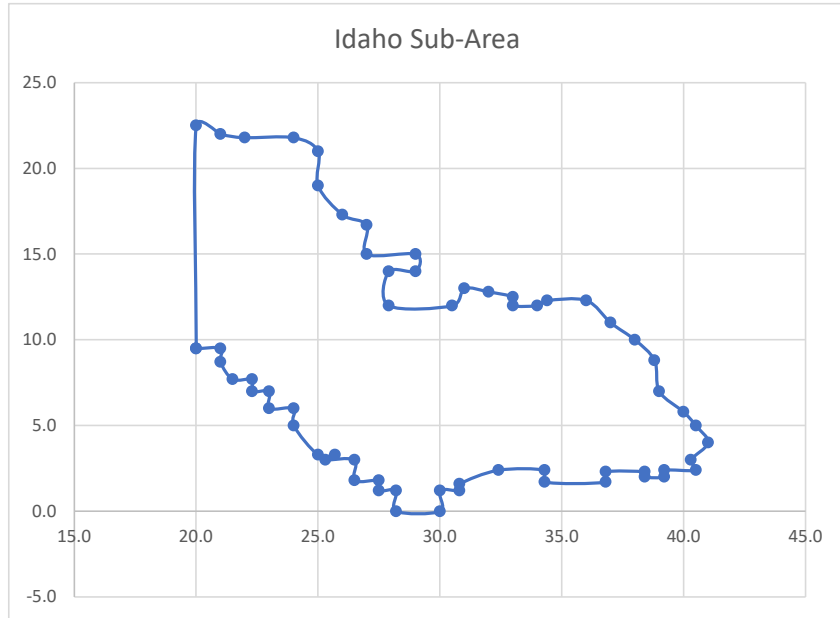
Owyhee Project Area Calculations

Page 1/2

Total Area 235.66

Idaho Sub-Area

Coordinate Number	X Coordinate	Y Coordinate
1	20.0	9.5
2	21.0	9.5
3	21.0	8.7
4	21.5	7.7
5	22.3	7.7
6	22.3	7.0
7	23.0	7.0
8	23.0	6.0
9	24.0	6.0
10	24.0	5.0
11	25.0	3.3
12	25.7	3.3
13	25.3	3.0
14	26.5	3.0
15	26.5	1.8
16	27.5	1.8
17	27.5	1.2
18	28.2	1.2
19	28.2	0.0
20	30.0	0.0
21	30.0	1.2
22	30.8	1.2
23	30.8	1.6
24	32.4	2.4
25	34.3	2.4
26	34.3	1.7
27	36.8	1.7
28	36.8	2.3
29	38.4	2.3
30	38.4	2.0
31	39.2	2.0
32	39.2	2.4
33	40.5	2.4
34	40.3	3.0
35	41.0	4.0
36	40.5	5.0
37	40.0	5.8
38	39.0	7.0
39	38.8	8.8
40	38.0	10.0
41	37.0	11.0
42	36.0	12.3
43	34.4	12.3
44	34.0	12.0
45	33.0	12.0
46	33.0	12.5
47	32.0	12.8
48	31.0	13.0
49	30.5	12.0
50	27.9	12.0
51	27.9	14.0
52	29.0	14.0
53	29.0	15.0
54	27.0	15.0
55	27.0	16.7
56	26.0	17.3
57	25.0	19.0
58	25.0	21.0



59	24.0	21.8
60	22.0	21.8
61	21.0	22.0
62	20.0	22.5
63	20.0	9.5

Idaho Sub-Area (continued)

USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

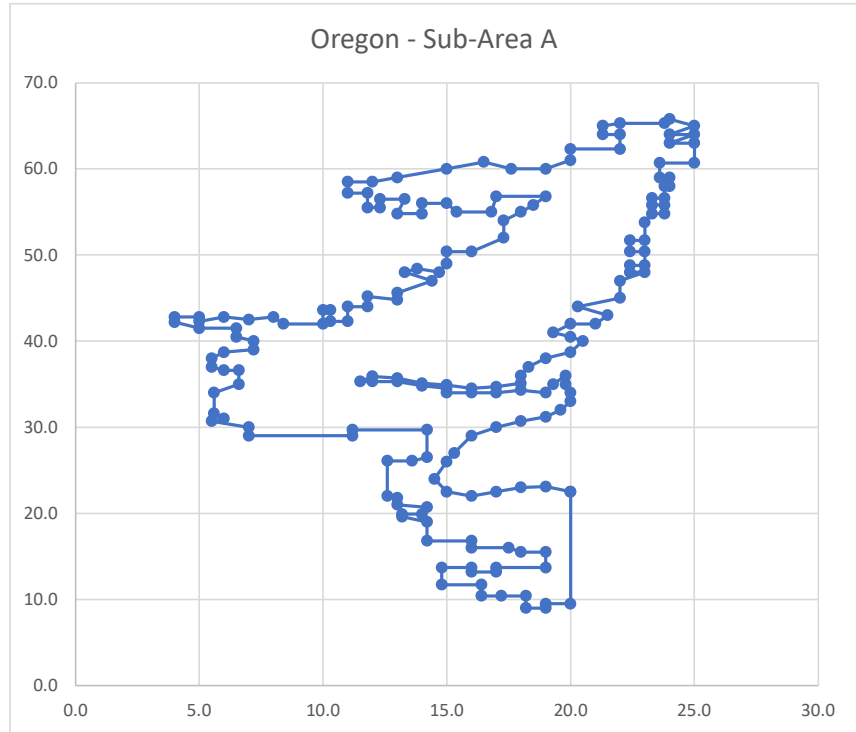
Owyhee Project Area Calculations

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Total Area 410.13

Oregon - Sub-Area A

Coordinate Number	X Coordinate	Y Coordinate
1	20.0	22.5
2	19.0	23.1
3	18.0	23.0
4	17.0	22.5
5	16.0	22.0
6	15.0	22.5
7	14.5	24.0
8	15.0	26.0
9	15.3	27.0
10	16.0	29.0
11	17.0	30.0
12	18.0	30.7
13	19.0	31.2
14	19.6	32.0
15	20.0	33.0
16	20.0	34.0
17	19.8	35.0
18	19.8	36.0
19	19.3	35.0
20	19.0	34.0
21	18.0	34.3
22	17.0	34.0
23	16.0	34.0
24	15.0	34.0
25	15.0	34.5
26	14.0	34.8
27	13.0	35.3
28	12.0	35.3
29	11.5	35.3
30	12.0	35.9
31	13.0	35.7
32	14.0	35.1
33	15.0	34.9
34	16.0	34.5
35	17.0	34.7
36	18.0	35.1
37	18.0	36.0
38	18.3	37.0
39	19.0	38.0
40	20.0	38.7
41	20.5	40.0
42	20.0	40.5
43	19.3	41.0
44	20.0	42.0
45	21.0	42.0
46	21.5	43.0
47	20.3	44.0
48	22.0	45.0
49	22.0	47.0
50	23.0	48.0
51	22.4	48.0
52	22.4	48.8
53	23.0	48.8
54	23.0	50.4
55	22.4	50.4
56	22.4	51.7
57	23.0	51.7
58	23.0	53.8



Oregon - Sub-Area A (continued)

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59	23.3	54.8
60	23.8	54.8
61	23.8	55.8
62	23.3	55.8
63	23.3	56.6
64	23.8	56.6
65	23.8	58.0
66	24.0	58.0
67	24.0	59.0
68	23.6	59.0
69	23.6	60.7
70	25.0	60.7
71	25.0	63.0
72	24.0	63.0
73	25.0	64.0
74	24.0	64.0
75	25.0	65.0
76	24.0	65.8
77	23.8	65.3
78	22.0	65.3
79	21.3	65.0
80	21.3	64.0
81	22.0	64.0
82	22.0	62.3
83	20.0	62.3
84	20.0	61.0
85	19.0	60.0
86	17.6	60.0
87	16.5	60.8
88	15.0	60.0
89	13.0	59.0
90	12.0	58.5
91	11.0	58.5
92	11.0	57.2
93	11.8	57.2
94	11.8	55.5
95	12.3	55.5
96	12.3	56.5
97	13.3	56.5
98	13.0	54.8
99	14.0	54.8
100	14.0	56.0
101	15.0	56.0
102	15.4	55.0
103	16.8	55.0
104	17.0	56.8
105	19.0	56.8
106	18.5	55.8
107	18.0	55.0
108	17.3	54.0
109	17.3	52.0
110	16.0	50.4
111	15.0	50.4
112	15.0	49.0
113	14.7	48.0
114	13.8	48.4
115	13.3	48.0
116	14.4	47.0
117	13.0	45.6
118	13.0	44.8
119	11.8	45.2
120	11.8	44.0
121	11.0	44.0
122	11.0	42.3
123	10.3	42.3
124	10.3	43.6
125	10.0	43.6
126	10.0	42.0

Oregon - Sub-Area A (continued)

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127	8.4	42.0
128	8.0	42.8
129	7.0	42.5
130	6.0	42.8
131	5.0	42.3
132	5.0	42.8
133	4.0	42.8
134	4.0	42.2
135	5.0	41.5
136	6.5	41.5
137	6.5	40.5
138	7.2	40.0
139	7.2	39.0
140	6.0	38.7
141	5.5	38.0
142	5.5	37.0
143	6.0	36.6
144	6.6	36.6
145	6.6	35.0
146	5.6	34.0
147	5.6	31.6
148	6.0	31.0
149	5.5	30.7
150	7.0	30.0
151	7.0	29.0
152	11.2	29.0
153	11.2	29.7
154	14.2	29.7
155	14.2	26.5
156	13.6	26.1
157	12.6	26.1
158	12.6	22.0
159	13.0	21.8
160	13.0	21.0
161	14.2	20.7
162	14.0	19.9
163	13.2	19.9
164	13.2	19.6
165	14.2	19.0
166	14.2	16.8
167	16.0	16.8
168	16.0	16.0
169	17.5	16.0
170	18.0	15.5
171	19.0	15.5
172	19.0	13.7
173	17.0	13.7
174	17.0	13.2
175	16.0	13.2
176	16.0	13.7
177	14.8	13.7
178	14.8	11.7
179	16.4	11.7
180	16.4	10.4
181	17.2	10.4
182	18.2	10.4
183	18.2	9.0
184	19.0	9.0
185	19.0	9.5
186	20.0	9.5
187	20.0	22.5

USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

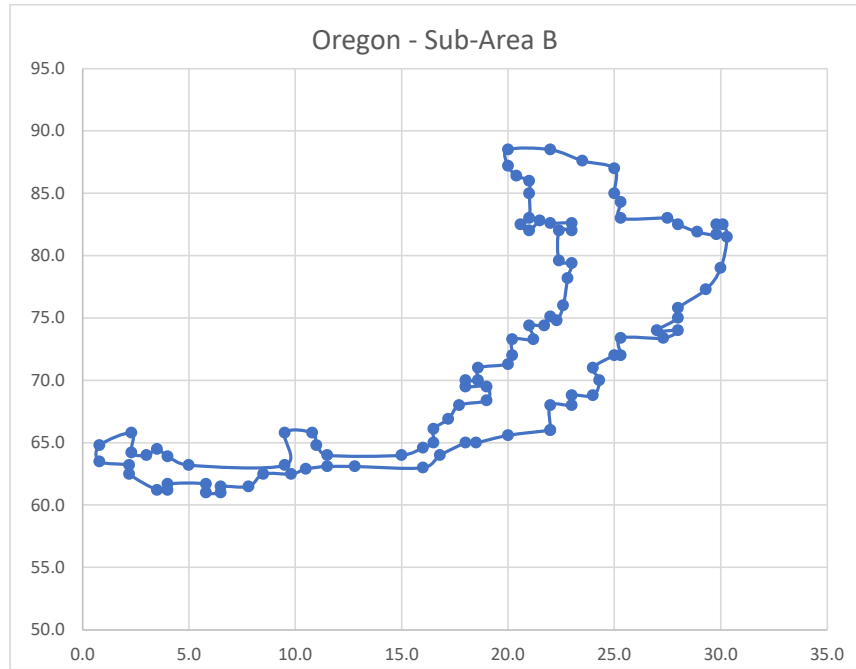
Owyhee Project Area Calculations

Page 1/2

Total Area 153.70

Oregon - Sub-Area B

Coordinate Number	X Coordinate	Y Coordinate
1	22.0	66.0
2	22.0	68.0
3	23.0	68.0
4	23.0	68.8
5	24.0	68.8
6	24.3	70.0
7	24.0	71.0
8	25.0	72.0
9	25.3	72.0
10	25.3	73.4
11	27.3	73.4
12	28.0	74.0
13	27.0	74.0
14	28.0	75.0
15	28.0	75.8
16	29.3	77.3
17	30.0	79.0
18	30.3	81.5
19	30.1	82.5
20	29.8	82.5
21	29.8	81.7
22	28.9	81.9
23	28.0	82.5
24	27.5	83.0
25	25.3	83.0
26	25.3	84.3
27	25.0	85.0
28	25.0	87.0
29	23.5	87.6
30	22.0	88.5
31	20.0	88.5
32	20.0	87.2
33	20.4	86.4
34	21.0	86.0
35	21.0	85.0
36	21.0	83.0
37	20.6	82.5
38	21.0	82.0
39	21.5	82.8
40	22.0	82.6
41	23.0	82.6
42	23.0	82.0
43	22.4	82.0
44	22.4	79.6
45	23.0	79.4
46	22.8	78.2
47	22.6	76.0
48	22.3	74.8
49	22.0	75.1
50	21.7	74.4
51	21.0	74.4
52	21.2	73.3
53	20.2	73.3
54	20.2	72.0
55	20.0	71.3
56	18.6	71.0
57	18.6	70.0
58	18.0	70.0



Oregon - Sub-Area B (continued)

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59	18.0	69.5
60	19.0	69.5
61	19.0	68.4
62	17.7	68.0
63	17.2	66.9
64	16.5	66.1
65	16.5	65.0
66	16.0	64.6
67	15.0	64.0
68	11.5	64.0
69	11.0	64.8
70	10.8	65.8
71	9.5	65.8
72	9.5	63.2
73	5.0	63.2
74	4.0	63.9
75	3.5	64.5
76	3.0	64.0
77	2.3	64.2
78	2.3	65.8
79	0.8	64.8
80	0.8	63.5
81	2.2	63.2
82	2.2	62.5
83	3.5	61.2
84	4.0	61.2
85	4.0	61.7
86	5.8	61.7
87	5.8	61.0
88	6.5	61.0
89	6.5	61.5
90	7.8	61.5
91	8.5	62.5
92	9.8	62.5
93	10.5	62.9
94	11.5	63.1
95	12.8	63.1
96	16.0	63.0
97	16.8	64.0
98	18.0	65.0
99	18.5	65.0
100	20.0	65.6
101	22.0	66.0

Yakima Project

Power Cost Sub-Area Analysis

USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

Yakima Irrigation Project Electric Utility Load Ratio Summary Calendar Years 2017 and 2018

Electric Utility Provider	Utility Service Territory Load Ratios
Benton County PUD	0.0688
Benton REA	0.3614
Kittitas County PUD	0.0471
Pacificorp - WA Rates	0.4256
Puget Sound Energy	0.0971
Total	1.0000

Notes: 1) The Utility Service Territory Load Ratios shown in the above table represent the fraction of the total 2017-2018 Yakima Project Electric Utility irrigation load that is served by the indicated Electric Utility Provider.

USBR/Klamath Project - AWIA Power Cost Benchmark Analysis
Yakima Irrigation Project Electric Utility Service Area Ratio and Load Ratio Calculations
Calendar Years 2017 and 2018

Yakima Project Electric Utility Annual Irrigation Power Usage (Mwh/Yr)	163,505
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Area/Load Allocations - Step 1

Electric Utility Provider	Utility Service Territory Area (Local Square Grids)	Utility Service Territory Area Ratio	Step 1 Annual Yakima Project Irrigation Load (Mwh)	2017/2018 Actual Total Irrigation Load (Mwh)	Is Step 1 Yakima Load Greater than Actual Load?	Excess Load to Re-allocate to other Utilities (Mwh)
Benton County PUD	56.88	0.0655	10,710	415,208	No	0
Benton REA	298.94	0.3442	56,278	199,626	No	0
Kittitas County PUD	80.33	0.0925	15,124	7,705	Yes	7,419
Pacificorp - WA Rates	352.02	0.4053	66,268	148,745	No	0
Puget Sound Energy	80.33	0.0925	15,124	16,009	No	0
Total	868.50	1.0000	163,505			7,419

Area/Load Allocations - Step 2

Electric Utility Provider	Preliminary		Final		
	Total Annual Yakima Project Irrigation Load (Mwh)	Excess Load Reallocation (Mwh)	Total Annual Yakima Project Irrigation Load (Mwh)	Utility Service Territory Load Ratio	Final Yakima Load Greater than Actual Load?
Benton County PUD	10,710	535	11,245	0.0688	No
Benton REA	56,278	2,814	59,092	0.3614	No
Kittitas County PUD	7,705	0	7,705	0.0471	No
Pacificorp - WA Rates	66,268	3,313	69,582	0.4256	No
Puget Sound Energy	15,124	756	15,880	0.0971	No
Total	156,086	7,419	163,505	1.0000	

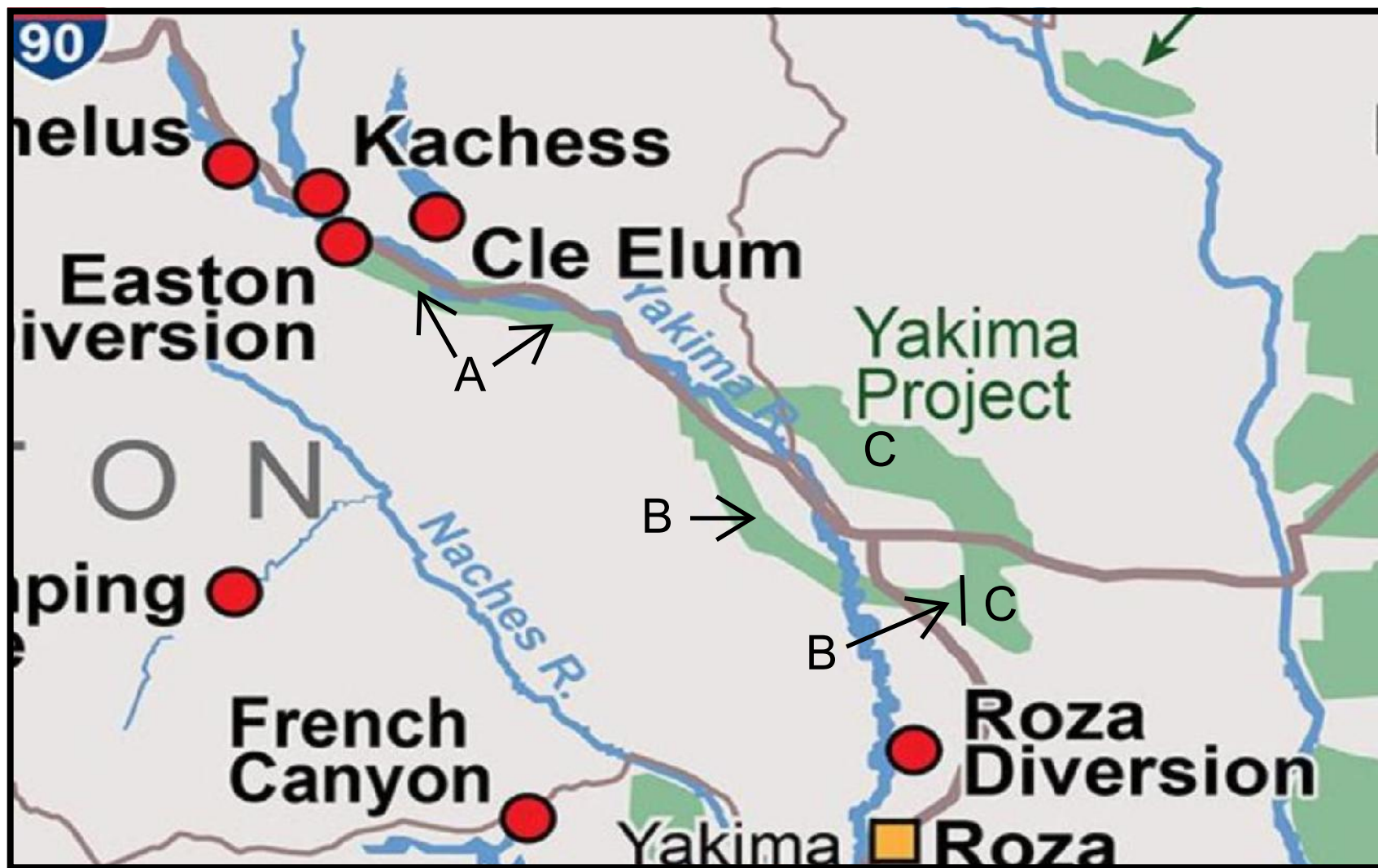
Notes: 1) The 2017-2018 actual annual irrigation load figure for Pacificorp is Pacificorp's load that is located in the state of Washington only.

USBR/Klamath Project - AWIA Power Cost Benchmark Analysis
Yakima Irrigation Project Electric Utility Service Territory Area Calculations

Map Label	Total Area (Local Square Grids)	Electric Utility Provider	Coverage Ratio	Final Utility Sub-Area (Local Square Grids)
Yakima North - Sub-Area A	32.97	Puget Sound Energy	0.50	16.49
Yakima North - Sub-Area A	32.97	Kittitas County PUD	0.50	16.49
Yakima North - Sub-Area B	38.93	Puget Sound Energy	0.50	19.46
Yakima North - Sub-Area B	38.93	Kittitas County PUD	0.50	19.46
Yakima North - Sub-Area C	88.76	Puget Sound Energy	0.50	44.38
Yakima North - Sub-Area C	88.76	Kittitas County PUD	0.50	44.38
Yakima South - Sub-Area A	69.34	Pacificorp - WA Rates	1.00	69.34
Yakima South - Sub-Area B	39.60	Pacificorp - WA Rates	1.00	39.60
Yakima South - Sub-Area C1	68.23	Pacificorp - WA Rates	1.00	68.23
Yakima South - Sub-Area C2	349.71	Pacificorp - WA Rates	0.50	174.85
Yakima South - Sub-Area C2	349.71	Benton REA	0.50	174.85
Yakima South - Sub-Area C3	110.79	Benton County PUD	0.22	24.37
Yakima South - Sub-Area C3	110.79	Benton REA	0.78	86.42
Yakima South - Sub-Area D1	25.12	Benton REA	1.00	25.12
Yakima South - Sub-Area D2	32.50	Benton County PUD	1.00	32.50
Yakima South - Sub-Area D3	12.55	Benton REA	1.00	12.55
Total Area	1,489.67			868.50

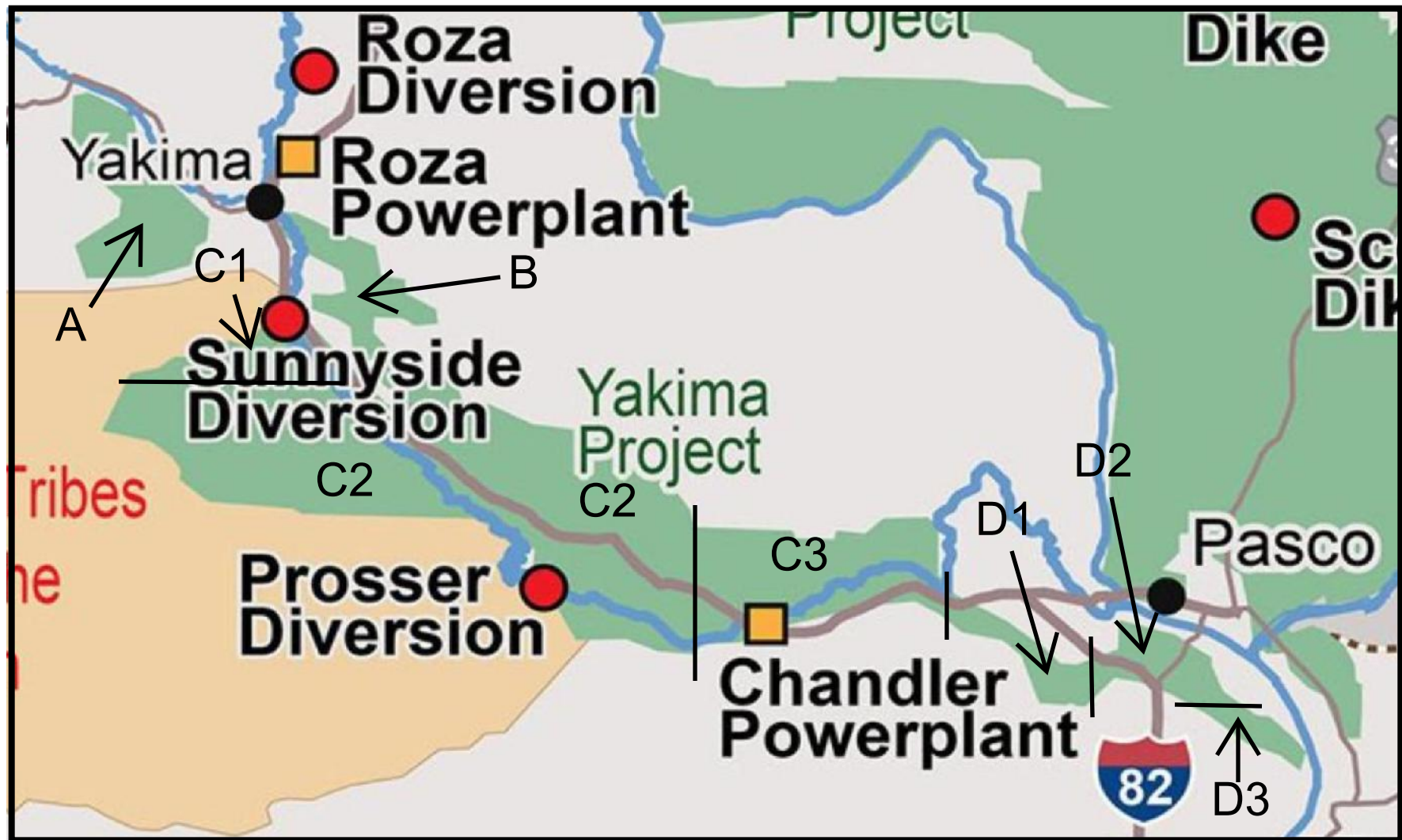
YAKIMA PROJECT

Yakima North Sub-Area Map



YAKIMA PROJECT

Yakima South Sub-Area Map



USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

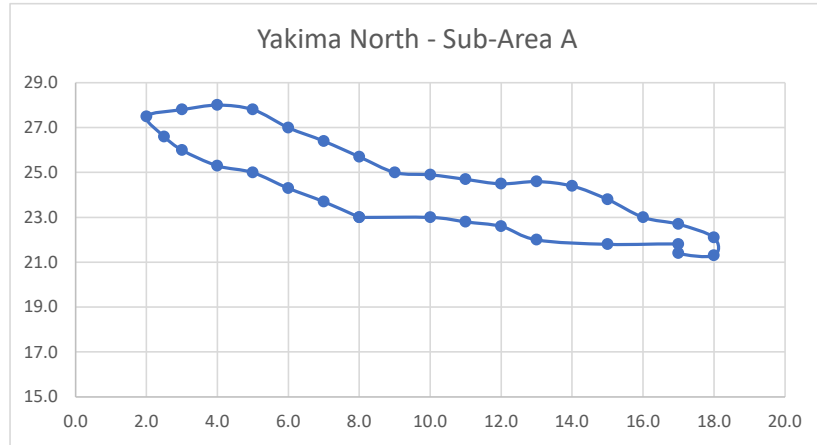
Yakima Project Area Calculations

Page 1/1

Total Area	32.97
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Yakima North - Sub-Area A

Coordinate Number	X Coordinate	Y Coordinate
1	8.0	23.0
2	10.0	23.0
3	11.0	22.8
4	12.0	22.6
5	13.0	22.0
6	15.0	21.8
7	17.0	21.8
8	17.0	21.4
9	18.0	21.3
10	18.0	22.1
11	17.0	22.7
12	16.0	23.0
13	15.0	23.8
14	14.0	24.4
15	13.0	24.6
16	12.0	24.5
17	11.0	24.7
18	10.0	24.9
19	9.0	25.0
20	8.0	25.7
21	7.0	26.4
22	6.0	27.0
23	5.0	27.8
24	4.0	28.0
25	3.0	27.8
26	2.0	27.5
27	2.5	26.6
28	3.0	26.0
29	4.0	25.3
30	5.0	25.0
31	6.0	24.3
32	7.0	23.7
33	8.0	23.0



USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

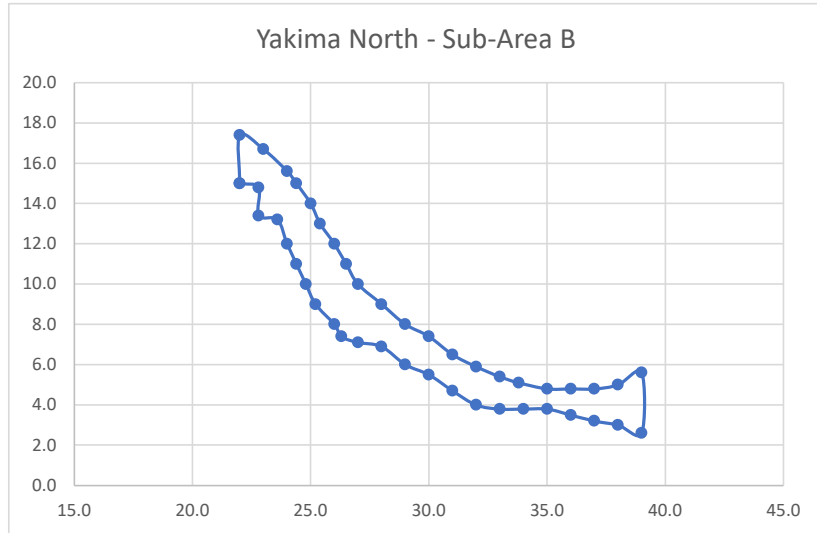
Yakima Project Area Calculations

Page 1/1

Total Area 38.93

Yakima North - Sub-Area B

Coordinate Number	X Coordinate	Y Coordinate
1	22.0	15.0
2	22.8	14.8
3	22.8	13.4
4	23.6	13.2
5	24.0	12.0
6	24.4	11.0
7	24.8	10.0
8	25.2	9.0
9	26.0	8.0
10	26.3	7.4
11	27.0	7.1
12	28.0	6.9
13	29.0	6.0
14	30.0	5.5
15	31.0	4.7
16	32.0	4.0
17	33.0	3.8
18	34.0	3.8
19	35.0	3.8
20	36.0	3.5
21	37.0	3.2
22	38.0	3.0
23	39.0	2.6
24	39.0	5.6
25	38.0	5.0
26	37.0	4.8
27	36.0	4.8
28	35.0	4.8
29	33.8	5.1
30	33.0	5.4
31	32.0	5.9
32	31.0	6.5
33	30.0	7.4
34	29.0	8.0
35	28.0	9.0
36	27.0	10.0
37	26.5	11.0
38	26.0	12.0
39	25.4	13.0
40	25.0	14.0
41	24.4	15.0
42	24.0	15.6
43	23.0	16.7
44	22.0	17.4
45	22.0	15.0



USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

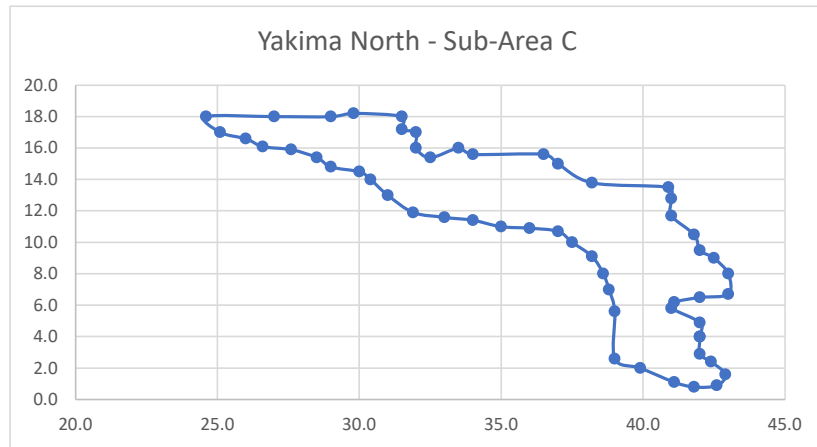
Yakima Project Area Calculations

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Total Area 88.76

Yakima North - Sub-Area C

Coordinate Number	X Coordinate	Y Coordinate
1	42.0	4.0
2	42.0	4.9
3	41.0	5.8
4	41.1	6.2
5	42.0	6.5
6	43.0	6.7
7	43.0	8.0
8	42.5	9.0
9	42.0	9.5
10	41.8	10.5
11	41.0	11.7
12	41.0	12.8
13	40.9	13.5
14	38.2	13.8
15	37.0	15.0
16	36.5	15.6
17	34.0	15.6
18	33.5	16.0
19	32.5	15.4
20	32.0	16.0
21	32.0	17.0
22	31.5	17.2
23	31.5	18.0
24	29.8	18.2
25	29.0	18.0
26	27.0	18.0
27	24.6	18.0
28	25.1	17.0
29	26.0	16.6
30	26.6	16.1
31	27.6	15.9
32	28.5	15.4
33	29.0	14.8
34	30.0	14.5
35	30.4	14.0
36	31.0	13.0
37	31.9	11.9
38	33.0	11.6
39	34.0	11.4
40	35.0	11.0
41	36.0	10.9
42	37.0	10.7
43	37.5	10.0
44	38.2	9.1
45	38.6	8.0
46	38.8	7.0
47	39.0	5.6
48	39.0	2.6
49	39.9	2.0
50	41.1	1.1
51	41.8	0.8
52	42.6	0.9
53	42.9	1.6
54	42.4	2.4
55	42.0	2.9
56	42.0	4.0



USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

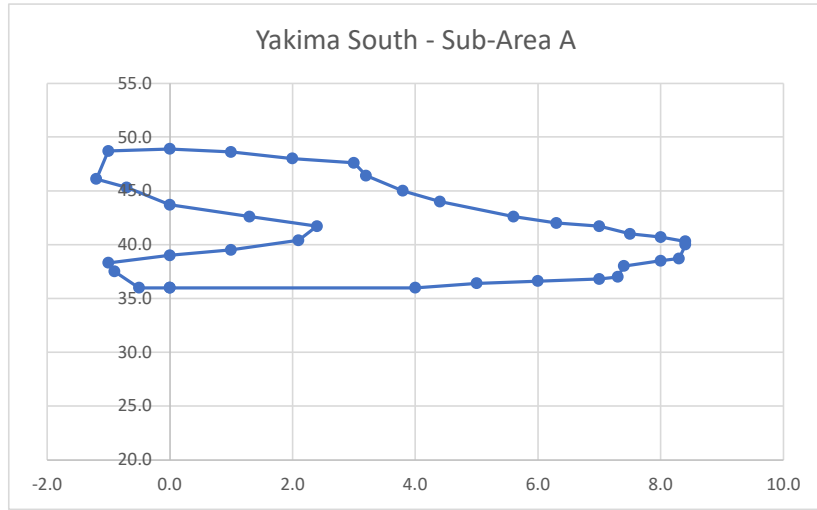
Yakima Project Area Calculations

Page 1/1

Total Area	69.34
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Yakima South - Sub-Area A

Coordinate Number	X Coordinate	Y Coordinate
1	0.0	36.0
2	4.0	36.0
3	5.0	36.4
4	6.0	36.6
5	7.0	36.8
6	7.3	37.0
7	7.4	38.0
8	8.0	38.5
9	8.3	38.7
10	8.4	40.0
11	8.4	40.3
12	8.0	40.7
13	7.5	41.0
14	7.0	41.7
15	6.3	42.0
16	5.6	42.6
17	4.4	44.0
18	3.8	45.0
19	3.2	46.4
20	3.0	47.6
21	2.0	48.0
22	1.0	48.6
23	0.0	48.9
24	-1.0	48.7
25	-1.2	46.1
26	-0.7	45.3
27	0.0	43.7
28	1.3	42.6
29	2.4	41.7
30	2.1	40.4
31	1.0	39.5
32	0.0	39.0
33	-1.0	38.3
34	-0.9	37.5
35	-0.5	36.0
36	0.0	36.0



USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

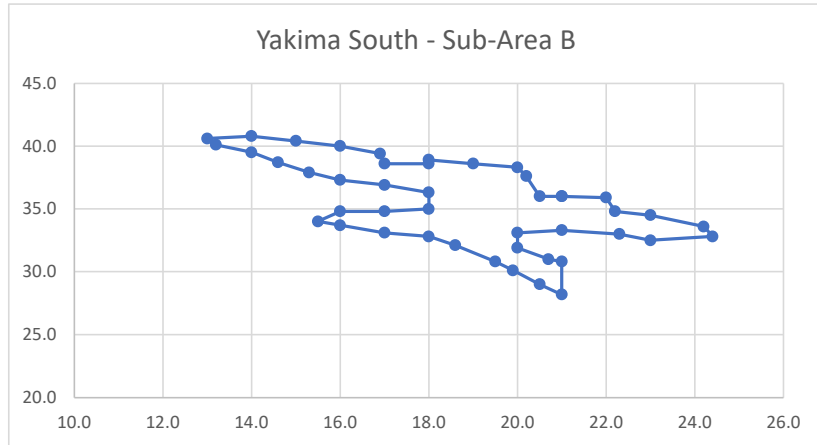
Yakima Project Area Calculations

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Total Area 39.60

Yakima South - Sub-Area B

Coordinate Number	X Coordinate	Y Coordinate
1	21.0	36.0
2	20.5	36.0
3	20.2	37.6
4	20.0	38.3
5	19.0	38.6
6	18.0	38.9
7	18.0	38.6
8	17.0	38.6
9	16.9	39.4
10	16.0	40.0
11	15.0	40.4
12	14.0	40.8
13	13.0	40.6
14	13.2	40.1
15	14.0	39.5
16	14.6	38.7
17	15.3	37.9
18	16.0	37.3
19	17.0	36.9
20	18.0	36.3
21	18.0	35.0
22	17.0	34.8
23	16.0	34.8
24	15.5	34.0
25	16.0	33.7
26	17.0	33.1
27	18.0	32.8
28	18.6	32.1
29	19.5	30.8
30	19.9	30.1
31	20.5	29.0
32	21.0	28.2
33	21.0	30.8
34	20.7	31.0
35	20.0	31.9
36	20.0	33.1
37	21.0	33.3
38	22.3	33.0
39	23.0	32.5
40	24.4	32.8
41	24.2	33.6
42	23.0	34.5
43	22.2	34.8
44	22.0	35.9
45	21.0	36.0



USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

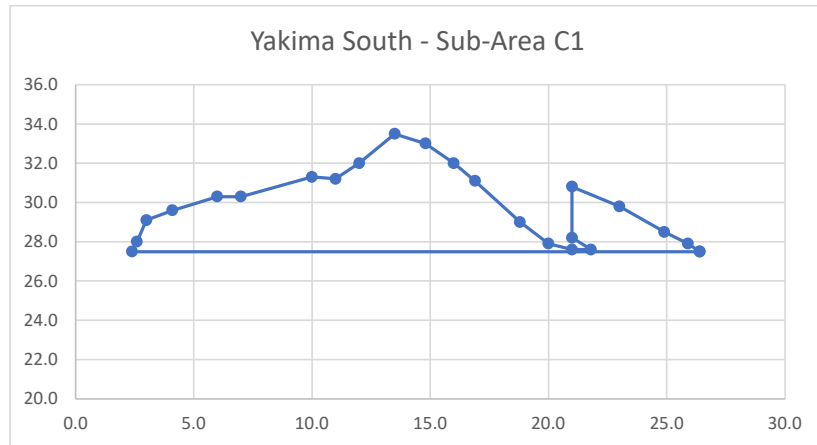
Yakima Project Area Calculations

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Total Area	68.23
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Yakima South - Sub-Area C1

Coordinate Number	X Coordinate	Y Coordinate
1	26.4	27.5
2	25.9	27.9
3	24.9	28.5
4	23.0	29.8
5	21.0	30.8
6	21.0	28.2
7	21.8	27.6
8	21.0	27.6
9	20.0	27.9
10	18.8	29.0
11	16.9	31.1
12	16.0	32.0
13	14.8	33.0
14	13.5	33.5
15	12.0	32.0
16	11.0	31.2
17	10.0	31.3
18	7.0	30.3
19	6.0	30.3
20	4.1	29.6
21	3.0	29.1
22	2.6	28.0
23	2.4	27.5
24	26.4	27.5



USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

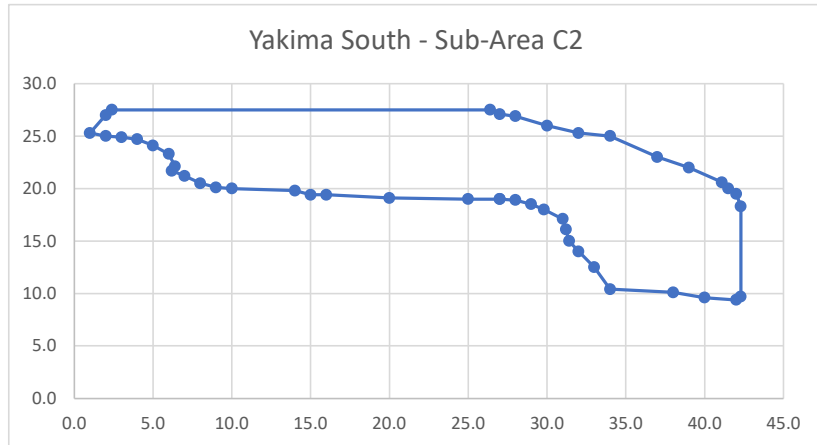
Yakima Project Area Calculations

Page 1/1

Total Area 349.71

Yakima South - Sub-Area C2

Coordinate Number	X Coordinate	Y Coordinate
1	27.0	19.0
2	28.0	18.9
3	29.0	18.5
4	29.8	18.0
5	31.0	17.1
6	31.2	16.1
7	31.4	15.0
8	32.0	14.0
9	33.0	12.5
10	34.0	10.4
11	38.0	10.1
12	40.0	9.6
13	42.0	9.4
14	42.3	9.7
15	42.3	18.3
16	42.0	19.5
17	41.5	20.0
18	41.1	20.6
19	39.0	22.0
20	37.0	23.0
21	34.0	25.0
22	32.0	25.3
23	30.0	26.0
24	28.0	26.9
25	27.0	27.1
26	26.4	27.5
27	2.4	27.5
28	2.0	27.0
29	1.0	25.3
30	2.0	25.0
31	3.0	24.9
32	4.0	24.7
33	5.0	24.1
34	6.0	23.3
35	6.4	22.1
36	6.2	21.7
37	7.0	21.2
38	8.0	20.5
39	9.0	20.1
40	10.0	20.0
41	14.0	19.8
42	15.0	19.4
43	16.0	19.4
44	20.0	19.1
45	25.0	19.0
46	27.0	19.0



USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

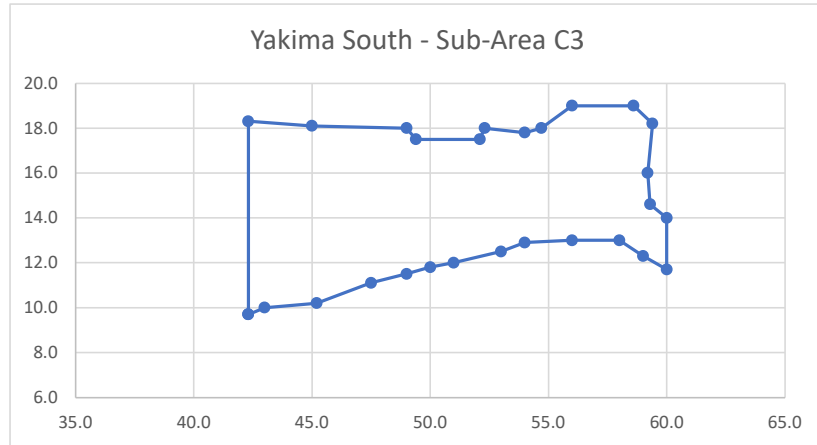
Yakima Project Area Calculations

Page 1/1

Total Area	110.79
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Yakima South - Sub-Area C3

Coordinate Number	X Coordinate	Y Coordinate
1	42.3	9.7
2	43.0	10.0
3	45.2	10.2
4	47.5	11.1
5	49.0	11.5
6	50.0	11.8
7	51.0	12.0
8	53.0	12.5
9	54.0	12.9
10	56.0	13.0
11	58.0	13.0
12	59.0	12.3
13	60.0	11.7
14	60.0	14.0
15	59.3	14.6
16	59.2	16.0
17	59.4	18.2
18	58.6	19.0
19	56.0	19.0
20	54.7	18.0
21	54.0	17.8
22	52.3	18.0
23	52.1	17.5
24	49.4	17.5
25	49.0	18.0
26	45.0	18.1
27	42.3	18.3
28	42.3	9.7



USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

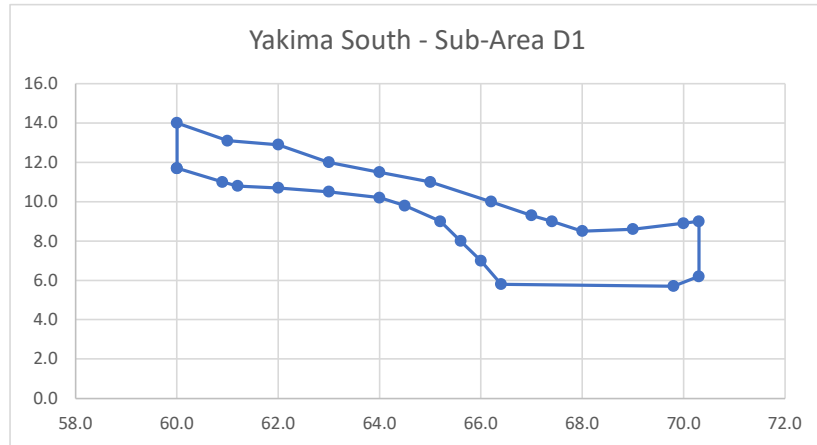
Yakima Project Area Calculations

Page 1/1

Total Area	25.12
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Yakima South - Sub-Area D1

Coordinate Number	X Coordinate	Y Coordinate
1	60.0	11.7
2	60.9	11.0
3	61.2	10.8
4	62.0	10.7
5	63.0	10.5
6	64.0	10.2
7	64.5	9.8
8	65.2	9.0
9	65.6	8.0
10	66.0	7.0
11	66.4	5.8
12	69.8	5.7
13	70.3	6.2
14	70.3	9.0
15	70.0	8.9
16	69.0	8.6
17	68.0	8.5
18	67.4	9.0
19	67.0	9.3
20	66.2	10.0
21	65.0	11.0
22	64.0	11.5
23	63.0	12.0
24	62.0	12.9
25	61.0	13.1
26	60.0	14.0
27	60.0	11.7



USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

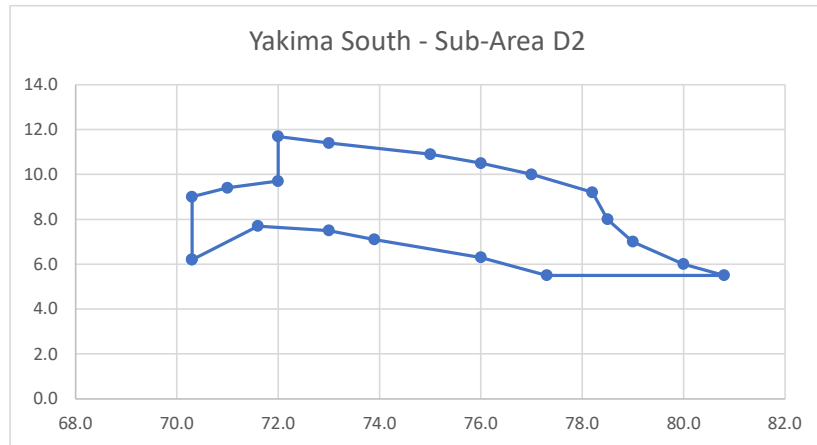
Yakima Project Area Calculations

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Total Area	32.50
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Yakima South - Sub-Area D2

Coordinate Number	X Coordinate	Y Coordinate
1	70.3	6.2
2	71.6	7.7
3	73.0	7.5
4	73.9	7.1
5	76.0	6.3
6	77.3	5.5
7	80.8	5.5
8	80.0	6.0
9	79.0	7.0
10	78.5	8.0
11	78.2	9.2
12	77.0	10.0
13	76.0	10.5
14	75.0	10.9
15	73.0	11.4
16	72.0	11.7
17	72.0	9.7
18	71.0	9.4
19	70.3	9.0
20	70.3	6.2



USBR/Klamath Project - AWIA Power Cost Benchmark Analysis

Yakima Project Area Calculations

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Total Area	12.55
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Yakima South - Sub-Area D3

Coordinate Number	X Coordinate	Y Coordinate
1	77.3	5.5
17	78.0	5.1
18	79.5	4.0
19	80.2	3.3
20	82.0	2.7
21	83.0	2.3
22	84.0	1.5
23	84.7	1.2
24	84.9	2.0
25	84.6	2.8
26	84.0	3.5
27	83.0	4.4
28	82.0	5.0
29	81.1	5.2
30	80.8	5.5
31	77.3	5.5

