



# **Responses to FERC Additional Information Request OP-1(h)**

## **CHEOPS Model Input Files**

### **Final Report**

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# SCHEDULE A: ADDITIONAL INFORMATION REQUEST OP-1 OPERATIONAL SCENARIOS CHEOPS MODEL INPUT FILES

*Time Required: 9 months*

(h) CHEOPS model input files

Please provide your operations model data input files for each of the 6 operational scenarios and sub-scenarios. We will use the files to confirm that the scenarios were modeled as we intended.

## 1. INTRODUCTION

Agency review of Idaho Power Company (IPC) license application for the Hells Canyon Complex (which includes the Brownlee, Oxbow, and Hells Canyon projects) resulted in requests to the Federal Energy Regulatory Commission (FERC) for additional studies. FERC evaluated these study requests and formulated a list of additional information requests (AIRs) to help in determining potential project-related impacts resulting from these IPC hydroelectric projects. This document addresses AIR OP-1(h), quoted above.

## 2. RESPONSE TO OP-1(H)—CHEOPS MODEL INPUT FILES

Attached with this response are the input files used to simulate project operations. The following should be noted when reviewing the input files:

- The turbine curves for the facilities have not been provided. This information is considered proprietary by IPC.
- At this time, the model is incapable of setting different level-fluctuation limits for filling and drafting conditions. For Brownlee Reservoir, level fluctuations are set at 3 feet all year in the model, for the purposes of rapidly filling the reservoir after flood control, to achieve or exceed the June 7 target elevation. The model output is post-processed to verify that the reservoir does not draft, or fluctuate, more than 1 foot during the resident fish spawning period. The exception to this limit is during low flow conditions to meet minimum flow conditions maintaining water over fall chinook redds until June 1.
- The naming convention of “Current Ops” used in the input files is to be interpreted as meaning IPC’s “proposed operations.” This earlier naming convention is an artifact of the process used during calibration and initial runs.

### **3. MODEL INPUT FILES**

The following are the model input files for this AIR response.



Complete Scenario Data for Scenario—OP-1\_Scenario1a\_average written out on 10/27/2004 9:29:49 AM

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Complete Scenario Data for Scenario - OP-1\_Scenariola\_average  
 Written out on 10/27/2004 9:29:49 AM

System Misc. Name - Proposed Ops Average					
Load_Shape_ID	CarryOver	MaxPeak	ForecastDays	ForecastAcr	
Fall_Chinook_	Flood_Control	Max_Discharge			
8	False	False	3	1	15
4	0				

Load_Shape Data, Name - FP01 SP HL pricing			
IMonth	Period	Duration	Price
1	1	6	
1	2	0	
1	3	6	
1	4	5	
1	5	5	
1	6	0	
1	7	2	
1	8	7	
1	9	6	
1	10	4	
1	11	5	
1	12	2	
2	1	6	
2	2	0	
2	3	6	
2	4	5	
2	5	5	
2	6	0	
2	7	2	
2	8	7	
2	9	6	
2	10	4	
2	11	5	
2	12	2	
3	1	6	
3	2	0	
3	3	6	
3	4	5	
3	5	5	
3	6	0	
3	7	2	
3	8	7	
3	9	6	
3	10	4	
3	11	5	
3	12	2	
4	1	6	
4	2	0	
4	3	8	
4	4	0	
4	5	8	
4	6	0	
4	7	2	

4	8	7
4	9	8
4	10	0
4	11	7
4	12	2
5	1	6
5	2	0
5	3	8
5	4	0
5	5	8
5	6	0
5	7	2
5	8	7
5	9	8
5	10	0
5	11	7
5	12	2
6	1	6
6	2	0
6	3	8
6	4	0
6	5	8
6	6	0
6	7	2
6	8	7
6	9	8
6	10	0
6	11	7
6	12	2
7	1	6
7	2	0
7	3	16
7	4	0
7	5	0
7	6	0
7	7	2
7	8	8
7	9	14
7	10	0
7	11	0
7	12	2
8	1	6
8	2	0
8	3	16
8	4	0
8	5	0
8	6	0
8	7	2
8	8	8
8	9	14
8	10	0
8	11	0
8	12	2
9	1	6
9	2	0
9	3	16
9	4	0

9	5	0
9	6	0
9	7	2
9	8	8
9	9	14
9	10	0
9	11	0
9	12	2
10	1	6
10	2	0
10	3	6
10	4	4
10	5	6
10	6	0
10	7	2
10	8	7
10	9	6
10	10	4
10	11	5
10	12	2
11	1	6
11	2	0
11	3	6
11	4	4
11	5	6
11	6	0
11	7	2
11	8	7
11	9	6
11	10	4
11	11	5
11	12	2
12	1	6
12	2	0
12	3	6
12	4	4
12	5	6
12	6	0
12	7	2
12	8	7
12	9	6
12	10	4
12	11	5
12	12	2

Fall\_Chinook Data, Name - Proposed Ops Average

Draw_Start	Refill_Start	Refill_End	Max_Discharge	Minimum_Max
Maximum_Max	Target_Elevat	Refill_Elevat	Allow_Peak	
252	294	345	11500	0
0	2076	False		0

Flood\_Control Data, Name - RC V2000

IDay	Dalles_Foreca	Brownlee_Fore	Req_Volume
59	75	3	0
59	75	4	200

59	75	5	300
59	75	6	400
59	85	3	150
59	85	4	300
59	85	5	350
59	85	6	400
59	95	3	200
59	95	4	300
59	95	5	350
59	95	6	400
59	105	3	300
59	105	4	400
59	105	5	400
59	105	6	400
59	115	3	300
59	115	4	400
59	115	5	500
59	115	6	500
90	75	3	0
90	75	4	100
90	75	5	200
90	75	6	350
90	85	3	100
90	85	4	300
90	85	5	400
90	85	6	450
90	95	3	150
90	95	4	300
90	95	5	400
90	95	6	500
90	105	3	200
90	105	4	425
90	105	5	475
90	105	6	500
90	115	3	250
90	115	4	450
90	115	5	600
90	115	6	750
105	75	3	0
105	75	4	50
105	75	5	150
105	75	6	250
105	85	3	50
105	85	4	250
105	85	5	400
105	85	6	500
105	95	3	100
105	95	4	300
105	95	5	425
105	95	6	550
105	105	3	150
105	105	4	450
105	105	5	525
105	105	6	600
105	115	3	200
105	115	4	500
105	115	5	650

105	115	6	850
120	75	3	0
120	75	4	0
120	75	5	50
120	75	6	150
120	85	3	0
120	85	4	250
120	85	5	400
120	85	6	500
120	95	3	50
120	95	4	300
120	95	5	450
120	95	6	600
120	105	3	100
120	105	4	450
120	105	5	550
120	105	6	700
120	115	3	150
120	115	4	550
120	115	5	750
120	115	6	980

Max\_Discharge Data, Name - None  
IDay Flow

Scenario Information for Brownlee

Physical Setting Conditions, Name - Current Ops 97b

Res\_Storage Data, Name - CEQUAL97b

Elevation	Storage
1973.2	432247
1979.8	475263
1983.2	498341
1986.5	521420
1989.8	546048
1993.1	570676
1996.5	596713
1999.8	622750
2003.1	650212
2006.5	677675
2009.8	706573
2013.1	735471
2016.5	765566
2019.8	795660
2023.1	827202
2029.8	891862
2033.1	924980
2036.4	959727
2039.8	994474

2043.1	1030689
2046.4	1066905
2049.8	1104803
2053.1	1142701
2056.4	1182254
2059.7	1221807
2063.1	1263344
2066.4	1304880
2069.7	1348494
2073.06	1392108
2076.4	1437212
2079.7	1482317

Tailwater Data, Name - Current Operations  
Flow                    Elevation

500	0.32
1000	0.38
2000	0.51
3000	0.63
4000	0.75
5000	0.87
6000	1
7000	1.11
8000	1.23
9000	1.35
10000	1.47
11000	1.59
12000	1.7
13000	1.82
14000	1.93
15000	2.05
20000	2.61
25000	3.15
30000	3.67
35000	4.18
40000	4.66
45000	5.13
50000	5.58
55000	6
60000	6.42
65000	6.81
70000	7.18
75000	7.54
80000	7.87
85000	8.19
90000	8.49
95000	8.77
100000	9.03

Ramp\_Curve Data, Name - None  
Flow                    Elevation

Outlet1 Data, Name - None  
Elevation            Flow



Outlet2 Data, Name - Current Operations

Elevation	Flow
2027	0
2033	5250
2037	12500
2044	27750
2050	46000
2077	171300

Outlet3 Data, Name - Brownlee Gates

Elevation	Flow
1976	51500
1990	69000
2010	87500
2027	100500
2050	116000
2079	132500

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops Average

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - Proposed Ops Average

IDay	Data	OrInflow	Dependent
1	10500	False	False
152	10500	False	False
153	6500	True	False
293	6500	True	False
294	11500	False	False
345	11500	False	False
346	10500	False	False
365	10500	False	False

Target\_Elev Data, Name - Proposed Ops Average

IDay	Elevation	HardTarget
1	2076	0
7	2076	0
158	2069	0
189	2076	0
243	2069	0
252	2069	0
365	2076	0

Flood\_Elev Data, Name - H2077 all year

IDay	Elevation
------	-----------

1 2077  
365 2077

Min\_Elev Data, Name - H1976 all year  
IDay Elevation

1 1976  
365 1976

Level\_Fluct Data, Name - LF3 all yr  
IDay Weekday Weekend

			Hard	Spill
1	3	3	False	False
244	3	3	False	False
365	3	3	False	False

Level\_Rate Data, Name - None  
IDay Rate

Flashboard Data, Name - None  
Elevation Volume Trip Reset

Bypass Data, Name - None  
IDay Data OrInflow Destination

Ramp\_Rate Data, Name - None  
IDay UpRampDay UpRampHour DownRampDay DownRampHour Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 6, Name = Current Operations  
Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 34, Name = Current Operations  
Head Flow Eff

**IPC Proprietary Data**

Turbine Performance, ID = 47, Name = Unit 5 n  
Head Flow Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 5, Name = Unit 5 Current Ops  
gOutput            Eff                    Cap

**IPC Proprietary Data**

Generator Performance Data, ID = 6, Name = Units 1 - 4 Current Ops  
gOutput            Eff                    Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay                Unit

Min\_Unit Data, Name - None  
Head                Flow                    Eff                    CenterLine            Headloss  
GeneratorEff    OpStyle

Scenario Information for Oxbow

Physical Setting Conditions, Name - Current Operations

Res\_Storage Data, Name - CEQUAL RS Curve

Elevation	Storage
1786.42	38536.44
1789.7	41746
1792.98	44954.86
1796.3	48465
1799.54	51975.63
1802.8	55731
1806.1	59487

Tailwater Data, Name - Current Operations

Flow	Elevation
1	1490

Ramp\_Curve Data, Name - None

Flow	Elevation
------	-----------

Outlet1 Data, Name - None

Elevation	Flow
-----------	------

Outlet2 Data, Name - Current Operations

Elevation	Flow
-----------	------

1755	0
1765	25000
1773	50000
1778	55000
1783	100000
1787	125000
1792	150000
1795	175000
1798	200000
1802	225000
1805	250000
1808	275000
1811	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1803

IDay	Elevation	HardTarget
1	1803	0
365	1803	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1805
365	1805

Min\_Elev Data, Name - H1795 all year

IDay	Elevation
1	1795
365	1795

Level\_Fluct Data, Name - LF5 all year

IDay	Weekday	Weekend	Hard	Spill
1	5	5	True	False
365	5	5	True	False

Level\_Rate Data, Name - None  
IDay            Rate

Flashboard Data, Name - None  
Elevation      Volume            Trip            Reset

Bypass Data, Name - Q100 all year  
IDay            Data            OrInflow        Destination

1	100	False	3
365	100	False	3

Ramp\_Rate Data, Name - None  
IDay            UpRampDay        UpRampHour      DownRampDay      DownRampHour      Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal      Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No        Head\_Loss\_ID    Generator\_Per    Turbine\_Perf\_    Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 8, Name = Current Operations  
Unit\_No        Unit\_HL        Common\_HL        Use\_Com2        Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 37, Name = Current Operations  
Head            Flow            Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 7, Name = Current Operations  
gOutput        Eff            Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay            Unit

Min\_Unit Data, Name - None  
Head            Flow            Eff            CenterLine        Headloss  
GeneratorEff    OpStyle

Scenario Information for Hells Canyon

Physical Setting Conditions, Name - PropOps\_HCDamCurve\_grid20ft

Res\_Storage Data, Name - CEQUAL RS Curve 20ft drawdown

Elevation	Storage
-----------	---------

1666.7	135049
1668.3	138532
1669.9	142016
1673.2	148983
1674.9	152701
1676.5	156419
1679.8	163855
1683.1	171642
1686.4	179429
1689.6	187475
1692.9	195521

Tailwater Data, Name - Current Operations

Flow	Elevation
------	-----------

6000	1467.98
7000	1468.91
8000	1469.68
9000	1470.34
12000	1471.91
14000	1472.77
18000	1474.1
20000	1474.89
24000	1476.1
28000	1477.21
30000	1477.74
35000	1478.98
40000	1480.14
44000	1481.01
48000	1481.84
54000	1483.01
60000	1484.09
65000	1484.92
72500	1486.06
75000	1486.41
80000	1487.08
85000	1487.68
90000	1488.24
95000	1488.73
100000	1489.18
105000	1489.57

Ramp\_Curve Data, Name - HC Dam rating curve

Flow	Elevation
------	-----------

0	59
3950	62

4710	62.5
5531	63
6412	63.5
7352	64
9407	65
10520	65.5
11690	66
12920	66.5
14200	67
16940	68
19890	69
23050	70
26430	71
30020	72
33820	73
37830	74
42040	75
46450	76
51070	77
55880	78
60890	79
66100	80
71500	81
77100	82
82900	83
88890	84
95070	85
101400	86
108000	87

Outlet1 Data, Name - None  
Elevation      Flow

Outlet2 Data, Name - Current Operations  
Elevation      Flow

1600	0
1668	168000
1673	195000
1678	226000
1683	255000
1688	284000
1691	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant_Options Data, Name - Current Operations				
Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	2	2

Operating Setting Conditions, Name - OP-1\_Scenariola\_average

Minimum Data, Name - Proposed Ops Average

IDay	Data	OrInflow	Dependent
1	10500	False	False
152	10500	False	False
153	6500	True	False
293	6500	True	False
294	11500	False	False
345	11500	False	False
346	10500	False	False
365	10500	False	False

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1687

IDay	Elevation	HardTarget
1	1687	0
365	1687	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1688
365	1688

Min\_Elev Data, Name - 1668ft all year

IDay	Elevation
1	1668
365	1668

Level\_Fluct Data, Name - LF20 all year

IDay	Weekday	Weekend	Hard	Spill
1	20	20	False	False
365	20	20	False	False

Level\_Rate Data, Name - None

IDay	Rate
------	------

Flashboard Data, Name - None

Elevation	Volume	Trip	Reset
-----------	--------	------	-------

Bypass Data, Name - None

IDay	Data	OrInflow	Destination
------	------	----------	-------------

Ramp\_Rate Data, Name - OP-1\_Sceneriola

IDay	UpRampDay	UpRampHour	DownRampDay	DownRampHour	Type
1	1E-12	1E-12	1E-12	1E-12	Stage
False					



365                    1E-12                    1E-12                    1E-12                    1E-12                    Stage  
False

Withdrawal Data, Name - None  
Withdrawal      Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No            Head\_Loss\_ID    Generator\_Per    Turbine\_Perf\_    Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 11, Name = Current Operations  
Unit\_No            Unit\_HL            Common\_HL            Use\_Com2            Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 40, Name = Current Operations  
Head                Flow                Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 9, Name = Current Operations  
gOutput            Eff                Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay                Unit

Min\_Unit Data, Name - None  
Head                Flow                Eff                CenterLine            Headloss  
GeneratorEff    OpStyle



Complete Scenario Data for Scenario—OP-1\_Scenario1a\_HI written out on 10/27/2004 9:30:08 AM

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Complete Scenario Data for Scenario - OP-1\_Scenariola\_HI  
 Written out on 10/27/2004 9:30:08 AM

System Misc. Name - Proposed Ops High					
Load_Shape_ID	CarryOver	MaxPeak	ForecastDays	ForecastAcr	
Fall_Chinook_	Flood_Control	Max_Discharge			
8	False	False	3	1	16
4	0				

Load_Shape Data, Name - FP01 SP HL pricing			
IMonth	Period	Duration	Price
1	1	6	
1	2	0	
1	3	6	
1	4	5	
1	5	5	
1	6	0	
1	7	2	
1	8	7	
1	9	6	
1	10	4	
1	11	5	
1	12	2	
2	1	6	
2	2	0	
2	3	6	
2	4	5	
2	5	5	
2	6	0	
2	7	2	
2	8	7	
2	9	6	
2	10	4	
2	11	5	
2	12	2	
3	1	6	
3	2	0	
3	3	6	
3	4	5	
3	5	5	
3	6	0	
3	7	2	
3	8	7	
3	9	6	
3	10	4	
3	11	5	
3	12	2	
4	1	6	
4	2	0	
4	3	8	
4	4	0	
4	5	8	
4	6	0	
4	7	2	

4	8	7
4	9	8
4	10	0
4	11	7
4	12	2
5	1	6
5	2	0
5	3	8
5	4	0
5	5	8
5	6	0
5	7	2
5	8	7
5	9	8
5	10	0
5	11	7
5	12	2
6	1	6
6	2	0
6	3	8
6	4	0
6	5	8
6	6	0
6	7	2
6	8	7
6	9	8
6	10	0
6	11	7
6	12	2
7	1	6
7	2	0
7	3	16
7	4	0
7	5	0
7	6	0
7	7	2
7	8	8
7	9	14
7	10	0
7	11	0
7	12	2
8	1	6
8	2	0
8	3	16
8	4	0
8	5	0
8	6	0
8	7	2
8	8	8
8	9	14
8	10	0
8	11	0
8	12	2
9	1	6
9	2	0
9	3	16
9	4	0

9	5	0
9	6	0
9	7	2
9	8	8
9	9	14
9	10	0
9	11	0
9	12	2
10	1	6
10	2	0
10	3	6
10	4	4
10	5	6
10	6	0
10	7	2
10	8	7
10	9	6
10	10	4
10	11	5
10	12	2
11	1	6
11	2	0
11	3	6
11	4	4
11	5	6
11	6	0
11	7	2
11	8	7
11	9	6
11	10	4
11	11	5
11	12	2
12	1	6
12	2	0
12	3	6
12	4	4
12	5	6
12	6	0
12	7	2
12	8	7
12	9	6
12	10	4
12	11	5
12	12	2

Fall\_Chinook Data, Name - Proposed Ops High

Draw_Start	Refill_Start	Refill_End	Max_Discharge	Minimum_Max
Maximum_Max	Target_Elevat	Refill_Elevat	Allow_Peak	
252	294	345	13000	0
0	2076	False		0

Flood\_Control Data, Name - RC V2000

IDay	Dalles_Foreca	Brownlee_Fore	Req_Volume
59	75	3	0
59	75	4	200

59	75	5	300
59	75	6	400
59	85	3	150
59	85	4	300
59	85	5	350
59	85	6	400
59	95	3	200
59	95	4	300
59	95	5	350
59	95	6	400
59	105	3	300
59	105	4	400
59	105	5	400
59	105	6	400
59	115	3	300
59	115	4	400
59	115	5	500
59	115	6	500
90	75	3	0
90	75	4	100
90	75	5	200
90	75	6	350
90	85	3	100
90	85	4	300
90	85	5	400
90	85	6	450
90	95	3	150
90	95	4	300
90	95	5	400
90	95	6	500
90	105	3	200
90	105	4	425
90	105	5	475
90	105	6	500
90	115	3	250
90	115	4	450
90	115	5	600
90	115	6	750
105	75	3	0
105	75	4	50
105	75	5	150
105	75	6	250
105	85	3	50
105	85	4	250
105	85	5	400
105	85	6	500
105	95	3	100
105	95	4	300
105	95	5	425
105	95	6	550
105	105	3	150
105	105	4	450
105	105	5	525
105	105	6	600
105	115	3	200
105	115	4	500
105	115	5	650



105	115	6	850
120	75	3	0
120	75	4	0
120	75	5	50
120	75	6	150
120	85	3	0
120	85	4	250
120	85	5	400
120	85	6	500
120	95	3	50
120	95	4	300
120	95	5	450
120	95	6	600
120	105	3	100
120	105	4	450
120	105	5	550
120	105	6	700
120	115	3	150
120	115	4	550
120	115	5	750
120	115	6	980

Max\_Discharge Data, Name - None  
IDay Flow

Scenario Information for Brownlee

Physical Setting Conditions, Name - Current Ops 97b

Res\_Storage Data, Name - CEQUAL97b

Elevation	Storage
1973.2	432247
1979.8	475263
1983.2	498341
1986.5	521420
1989.8	546048
1993.1	570676
1996.5	596713
1999.8	622750
2003.1	650212
2006.5	677675
2009.8	706573
2013.1	735471
2016.5	765566
2019.8	795660
2023.1	827202
2029.8	891862
2033.1	924980
2036.4	959727
2039.8	994474

2043.1	1030689
2046.4	1066905
2049.8	1104803
2053.1	1142701
2056.4	1182254
2059.7	1221807
2063.1	1263344
2066.4	1304880
2069.7	1348494
2073.06	1392108
2076.4	1437212
2079.7	1482317

Tailwater Data, Name - Current Operations  
Flow                      Elevation

500	0.32
1000	0.38
2000	0.51
3000	0.63
4000	0.75
5000	0.87
6000	1
7000	1.11
8000	1.23
9000	1.35
10000	1.47
11000	1.59
12000	1.7
13000	1.82
14000	1.93
15000	2.05
20000	2.61
25000	3.15
30000	3.67
35000	4.18
40000	4.66
45000	5.13
50000	5.58
55000	6
60000	6.42
65000	6.81
70000	7.18
75000	7.54
80000	7.87
85000	8.19
90000	8.49
95000	8.77
100000	9.03

Ramp\_Curve Data, Name - None  
Flow                      Elevation

Outlet1 Data, Name - None  
Elevation              Flow

Outlet2 Data, Name - Current Operations

Elevation	Flow
2027	0
2033	5250
2037	12500
2044	27750
2050	46000
2077	171300

Outlet3 Data, Name - Brownlee Gates

Elevation	Flow
1976	51500
1990	69000
2010	87500
2027	100500
2050	116000
2079	132500

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops High

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - Proposed Ops High

IDay	Data	OrInflow	Dependent
1	12000	False	False
152	12000	False	False
153	6500	True	False
293	6500	True	False
294	13000	False	False
345	13000	False	False
346	12000	False	False
365	12000	False	False

Target\_Elev Data, Name - Proposed Ops High

IDay	Elevation	HardTarget
1	2076	0
7	2076	0
189	2076	0
243	2059	0
252	2059	0
253	2076	0
365	2076	0

Flood\_Elev Data, Name - H2077 all year

IDay	Elevation
------	-----------

1 2077  
365 2077

Min\_Elev Data, Name - H1976 all year  
IDay Elevation

1 1976  
365 1976

Level\_Fluct Data, Name - LF3 all yr  
IDay Weekday Weekend

			Hard	Spill
1	3	3	False	False
244	3	3	False	False
365	3	3	False	False

Level\_Rate Data, Name - None  
IDay Rate

Flashboard Data, Name - None  
Elevation Volume Trip Reset

Bypass Data, Name - None  
IDay Data OrInflow Destination

Ramp\_Rate Data, Name - None  
IDay UpRampDay UpRampHour DownRampDay DownRampHour Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 6, Name = Current Operations  
Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 34, Name = Current Operations  
Head Flow Eff

**IPC Proprietary Data**

Turbine Performance, ID = 47, Name = Unit 5 n  
Head Flow Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 5, Name = Unit 5 Current Ops  
gOutput            Eff                    Cap

**IPC Proprietary Data**

Generator Performance Data, ID = 6, Name = Units 1 - 4 Current Ops  
gOutput            Eff                    Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay                Unit

Min\_Unit Data, Name - None  
Head                Flow                    Eff                    CenterLine            Headloss  
GeneratorEff    OpStyle

Scenario Information for Oxbow

Physical Setting Conditions, Name - Current Operations

Res\_Storage Data, Name - CEQUAL RS Curve  
Elevation            Storage

1786.42	38536.44
1789.7	41746
1792.98	44954.86
1796.3	48465
1799.54	51975.63
1802.8	55731
1806.1	59487

Tailwater Data, Name - Current Operations  
Flow                Elevation

1	1490
---	------

Ramp\_Curve Data, Name - None  
Flow                Elevation

Outlet1 Data, Name - None  
Elevation            Flow

Outlet2 Data, Name - Current Operations  
Elevation            Flow

1755	0
1765	25000
1773	50000
1778	55000
1783	100000
1787	125000
1792	150000
1795	175000
1798	200000
1802	225000
1805	250000
1808	275000
1811	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1803

IDay	Elevation	HardTarget
1	1803	0
365	1803	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1805
365	1805

Min\_Elev Data, Name - H1795 all year

IDay	Elevation
1	1795
365	1795

Level\_Fluct Data, Name - LF5 all year

IDay	Weekday	Weekend	Hard	Spill
1	5	5	True	False
365	5	5	True	False

Level\_Rate Data, Name - None  
IDay            Rate

Flashboard Data, Name - None  
Elevation      Volume            Trip            Reset

Bypass Data, Name - Q100 all year  
IDay            Data            OrInflow        Destination

1	100	False	3
365	100	False	3

Ramp\_Rate Data, Name - None  
IDay            UpRampDay        UpRampHour      DownRampDay      DownRampHour      Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal      Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No        Head\_Loss\_ID    Generator\_Per    Turbine\_Perf\_    Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 8, Name = Current Operations  
Unit\_No        Unit\_HL        Common\_HL        Use\_Com2        Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 37, Name = Current Operations  
Head            Flow            Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 7, Name = Current Operations  
gOutput        Eff            Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay            Unit

Min\_Unit Data, Name - None  
Head            Flow            Eff            CenterLine        Headloss  
GeneratorEff    OpStyle

Scenario Information for Hells Canyon

Physical Setting Conditions, Name - PropOps\_HCDamCurve\_grid20ft

Res\_Storage Data, Name - CEQUAL RS Curve 20ft drawdown

Elevation            Storage

1666.7	135049
1668.3	138532
1669.9	142016
1673.2	148983
1674.9	152701
1676.5	156419
1679.8	163855
1683.1	171642
1686.4	179429
1689.6	187475
1692.9	195521

Tailwater Data, Name - Current Operations

Flow                Elevation

6000	1467.98
7000	1468.91
8000	1469.68
9000	1470.34
12000	1471.91
14000	1472.77
18000	1474.1
20000	1474.89
24000	1476.1
28000	1477.21
30000	1477.74
35000	1478.98
40000	1480.14
44000	1481.01
48000	1481.84
54000	1483.01
60000	1484.09
65000	1484.92
72500	1486.06
75000	1486.41
80000	1487.08
85000	1487.68
90000	1488.24
95000	1488.73
100000	1489.18
105000	1489.57

Ramp\_Curve Data, Name - HC Dam rating curve

Flow                Elevation

0	59
3950	62



4710	62.5
5531	63
6412	63.5
7352	64
9407	65
10520	65.5
11690	66
12920	66.5
14200	67
16940	68
19890	69
23050	70
26430	71
30020	72
33820	73
37830	74
42040	75
46450	76
51070	77
55880	78
60890	79
66100	80
71500	81
77100	82
82900	83
88890	84
95070	85
101400	86
108000	87

Outlet1 Data, Name - None  
Elevation      Flow

Outlet2 Data, Name - Current Operations  
Elevation      Flow

1600	0
1668	168000
1673	195000
1678	226000
1683	255000
1688	284000
1691	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant_Options Data, Name - Current Operations				
Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	2	2

Operating Setting Conditions, Name - OP-1\_Scenariola\_HI

Minimum Data, Name - Proposed Ops High

IDay	Data	OrInflow	Dependent
1	12000	False	False
152	12000	False	False
153	6500	True	False
293	6500	True	False
294	13000	False	False
345	13000	False	False
346	12000	False	False
365	12000	False	False

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1687

IDay	Elevation	HardTarget
1	1687	0
365	1687	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1688
365	1688

Min\_Elev Data, Name - 1668ft all year

IDay	Elevation
1	1668
365	1668

Level\_Fluct Data, Name - LF20 all year

IDay	Weekday	Weekend	Hard	Spill
1	20	20	False	False
365	20	20	False	False

Level\_Rate Data, Name - None

IDay	Rate
------	------

Flashboard Data, Name - None

Elevation	Volume	Trip	Reset
-----------	--------	------	-------

Bypass Data, Name - None

IDay	Data	OrInflow	Destination
------	------	----------	-------------

Ramp\_Rate Data, Name - OP-1\_Sceneriola

IDay	UpRampDay	UpRampHour	DownRampDay	DownRampHour	Type
1	1E-12	1E-12	1E-12	1E-12	Stage
False					

365                    1E-12                    1E-12                    1E-12                    1E-12                    Stage  
False

Withdrawal Data, Name - None  
Withdrawal        Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No            Head\_Loss\_ID    Generator\_Per    Turbine\_Perf\_    Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 11, Name = Current Operations  
Unit\_No            Unit\_HL            Common\_HL            Use\_Com2            Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 40, Name = Current Operations  
Head                Flow                Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 9, Name = Current Operations  
gOutput            Eff                Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay                Unit

Min\_Unit Data, Name - None  
Head                Flow                Eff                CenterLine            Headloss  
GeneratorEff    OpStyle



Complete Scenario Data for Scenario—OP-1\_Scenario1a\_LO written out on 1/5/2005 3:54:14 PM

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Complete Scenario Data for Scenario - OP-1\_Scenariola\_LO  
 Written out on 1/5/2005 3:54:14 PM

System Misc. Name - Proposed Ops Low					
Load_Shape_ID	CarryOver	MaxPeak	ForecastDays	ForecastAcr	
Fall_Chinook_	Flood_Control	Max_Discharge			
8	False	False	3	1	14
4	0				

Load_Shape Data, Name - FP01 SP HL pricing			
IMonth	Period	Duration	Price
1	1	6	70.87
1	2	0	80
1	3	6	80
1	4	5	80
1	5	5	80
1	6	0	80
1	7	2	70.87
1	8	7	70.87
1	9	6	80
1	10	4	70.87
1	11	5	80
1	12	2	70.87
2	1	6	60.97
2	2	0	65.54
2	3	6	65.54
2	4	5	65.54
2	5	5	65.54
2	6	0	65.54
2	7	2	60.97
2	8	7	60.97
2	9	6	65.54
2	10	4	60.97
2	11	5	65.54
2	12	2	60.97
3	1	6	51.47
3	2	0	58.38
3	3	6	58.38
3	4	5	58.38
3	5	5	58.38
3	6	0	58.38
3	7	2	51.47
3	8	7	51.47
3	9	6	58.38
3	10	4	51.47
3	11	5	58.38
3	12	2	51.47
4	1	6	49.47
4	2	0	60.62
4	3	8	60.62
4	4	0	60.62
4	5	8	60.62
4	6	0	60.62
4	7	2	49.47

4	8	7	49.47
4	9	8	60.62
4	10	0	49.47
4	11	7	60.62
4	12	2	49.47
5	1	6	40.8
5	2	0	52.4
5	3	8	52.4
5	4	0	52.4
5	5	8	52.4
5	6	0	52.4
5	7	2	40.8
5	8	7	40.8
5	9	8	52.4
5	10	0	40.8
5	11	7	52.4
5	12	2	40.8
6	1	6	40.74
6	2	0	43.49
6	3	8	43.49
6	4	0	43.49
6	5	8	43.49
6	6	0	43.49
6	7	2	40.74
6	8	7	40.74
6	9	8	43.49
6	10	0	40.74
6	11	7	43.49
6	12	2	40.74
7	1	6	73.98
7	2	0	91.12
7	3	16	91.12
7	4	0	91.12
7	5	0	91.12
7	6	0	91.12
7	7	2	73.98
7	8	8	73.98
7	9	14	91.12
7	10	0	73.98
7	11	0	91.12
7	12	2	73.98
8	1	6	82.22
8	2	0	100.61
8	3	16	100.61
8	4	0	100.61
8	5	0	100.61
8	6	0	100.61
8	7	2	82.22
8	8	8	82.22
8	9	14	100.61
8	10	0	82.22
8	11	0	100.61
8	12	2	82.22
9	1	6	70.81
9	2	0	83.31
9	3	16	83.31
9	4	0	83.31



9	5	0	83.31
9	6	0	83.31
9	7	2	70.81
9	8	8	70.81
9	9	14	83.31
9	10	0	70.81
9	11	0	83.31
9	12	2	70.81
10	1	6	61.17
10	2	0	65.88
10	3	6	65.88
10	4	4	65.88
10	5	6	65.88
10	6	0	65.88
10	7	2	61.17
10	8	7	61.17
10	9	6	65.88
10	10	4	61.17
10	11	5	65.88
10	12	2	61.17
11	1	6	68.89
11	2	0	75.44
11	3	6	75.44
11	4	4	75.44
11	5	6	75.44
11	6	0	75.44
11	7	2	68.89
11	8	7	68.89
11	9	6	75.44
11	10	4	68.89
11	11	5	75.44
11	12	2	68.89
12	1	6	68.83
12	2	0	75.38
12	3	6	75.38
12	4	4	75.38
12	5	6	75.38
12	6	0	75.38
12	7	2	68.83
12	8	7	68.83
12	9	6	75.38
12	10	4	68.83
12	11	5	75.38
12	12	2	68.83

Fall\_Chinook Data, Name - Proposed Ops Low

Draw_Start	Refill_Start	Refill_End	Max_Discharge	Minimum_Max
Maximum_Max	Target_Elevat	Refill_Elevat	Allow_Peak	
252	294	345	9000	0
0	2076	False		0

Flood\_Control Data, Name - RC V2000

IDay	Dalles_Foreca	Brownlee_Fore	Req_Volume
59	75	3	0
59	75	4	200

59	75	5	300
59	75	6	400
59	85	3	150
59	85	4	300
59	85	5	350
59	85	6	400
59	95	3	200
59	95	4	300
59	95	5	350
59	95	6	400
59	105	3	300
59	105	4	400
59	105	5	400
59	105	6	400
59	115	3	300
59	115	4	400
59	115	5	500
59	115	6	500
90	75	3	0
90	75	4	100
90	75	5	200
90	75	6	350
90	85	3	100
90	85	4	300
90	85	5	400
90	85	6	450
90	95	3	150
90	95	4	300
90	95	5	400
90	95	6	500
90	105	3	200
90	105	4	425
90	105	5	475
90	105	6	500
90	115	3	250
90	115	4	450
90	115	5	600
90	115	6	750
105	75	3	0
105	75	4	50
105	75	5	150
105	75	6	250
105	85	3	50
105	85	4	250
105	85	5	400
105	85	6	500
105	95	3	100
105	95	4	300
105	95	5	425
105	95	6	550
105	105	3	150
105	105	4	450
105	105	5	525
105	105	6	600
105	115	3	200
105	115	4	500
105	115	5	650

105	115	6	850
120	75	3	0
120	75	4	0
120	75	5	50
120	75	6	150
120	85	3	0
120	85	4	250
120	85	5	400
120	85	6	500
120	95	3	50
120	95	4	300
120	95	5	450
120	95	6	600
120	105	3	100
120	105	4	450
120	105	5	550
120	105	6	700
120	115	3	150
120	115	4	550
120	115	5	750
120	115	6	980

Max\_Discharge Data, Name - None  
IDay Flow

Scenario Information for Brownlee

Physical Setting Conditions, Name - Current Ops 97b

Res\_Storage Data, Name - CEQUAL97b

Elevation	Storage
1973.2	432247
1979.8	475263
1983.2	498341
1986.5	521420
1989.8	546048
1993.1	570676
1996.5	596713
1999.8	622750
2003.1	650212
2006.5	677675
2009.8	706573
2013.1	735471
2016.5	765566
2019.8	795660
2023.1	827202
2029.8	891862
2033.1	924980
2036.4	959727
2039.8	994474

2043.1	1030689
2046.4	1066905
2049.8	1104803
2053.1	1142701
2056.4	1182254
2059.7	1221807
2063.1	1263344
2066.4	1304880
2069.7	1348494
2073.06	1392108
2076.4	1437212
2079.7	1482317

Tailwater Data, Name - Current Operations  
Flow                      Elevation

500	0.32
1000	0.38
2000	0.51
3000	0.63
4000	0.75
5000	0.87
6000	1
7000	1.11
8000	1.23
9000	1.35
10000	1.47
11000	1.59
12000	1.7
13000	1.82
14000	1.93
15000	2.05
20000	2.61
25000	3.15
30000	3.67
35000	4.18
40000	4.66
45000	5.13
50000	5.58
55000	6
60000	6.42
65000	6.81
70000	7.18
75000	7.54
80000	7.87
85000	8.19
90000	8.49
95000	8.77
100000	9.03

Ramp\_Curve Data, Name - None  
Flow                      Elevation

Outlet1 Data, Name - None  
Elevation              Flow

Outlet2 Data, Name - Current Operations

Elevation	Flow
2027	0
2033	5250
2037	12500
2044	27750
2050	46000
2077	171300

Outlet3 Data, Name - Brownlee Gates

Elevation	Flow
1976	51500
1990	69000
2010	87500
2027	100500
2050	116000
2079	132500

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops Low

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - Proposed Ops Low

IDay	Data	OrInflow	Dependent
1	8500	False	False
152	8500	False	False
153	6500	True	False
293	6500	True	False
294	9000	False	False
345	9000	False	False
346	8500	False	False
365	8500	False	False

Target\_Elev Data, Name - Proposed Ops Low

IDay	Elevation	HardTarget
1	2076	0
7	2076	0
121	2076	0
189	2076	0
243	2072	0
252	2072	0
365	2076	0

Flood\_Elev Data, Name - H2077 all year

IDay	Elevation
------	-----------

1 2077  
365 2077

Min\_Elev Data, Name - H1976 all year  
IDay Elevation

1 1976  
365 1976

Level\_Fluct Data, Name - LF3 all yr  
IDay Weekday Weekend

	Weekday	Weekend	Hard	Spill
1	3	3	False	False
244	3	3	False	False
365	3	3	False	False

Level\_Rate Data, Name - None  
IDay Rate

Flashboard Data, Name - None  
Elevation Volume Trip Reset

Bypass Data, Name - None  
IDay Data OrInflow Destination

Ramp\_Rate Data, Name - None  
IDay UpRampDay UpRampHour DownRampDay DownRampHour Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 6, Name = Current Operations  
Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 34, Name = Current Operations  
Head Flow Eff

**IPC Proprietary Data**

Turbine Performance, ID = 47, Name = Unit 5 n  
Head Flow Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 5, Name = Unit 5 Current Ops  
gOutput            Eff                    Cap

**IPC Proprietary Data**

Generator Performance Data, ID = 6, Name = Units 1 - 4 Current Ops  
gOutput            Eff                    Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay                Unit

Min\_Unit Data, Name - None  
Head                Flow                    Eff                    CenterLine            Headloss  
GeneratorEff    OpStyle

Scenario Information for Oxbow

Physical Setting Conditions, Name - Current Operations

Res\_Storage Data, Name - CEQUAL RS Curve  
Elevation            Storage

1786.42	38536.44
1789.7	41746
1792.98	44954.86
1796.3	48465
1799.54	51975.63
1802.8	55731
1806.1	59487

Tailwater Data, Name - Current Operations  
Flow                Elevation

1	1490
---	------

Ramp\_Curve Data, Name - None  
Flow                Elevation

Outlet1 Data, Name - None  
Elevation            Flow

Outlet2 Data, Name - Current Operations  
Elevation            Flow

1755	0
1765	25000
1773	50000
1778	55000
1783	100000
1787	125000
1792	150000
1795	175000
1798	200000
1802	225000
1805	250000
1808	275000
1811	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
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Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1803

IDay	Elevation	HardTarget
1	1803	0
365	1803	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1805
365	1805

Min\_Elev Data, Name - H1795 all year

IDay	Elevation
1	1795
365	1795

Level\_Fluct Data, Name - LF5 all year

IDay	Weekday	Weekend	Hard	Spill
1	5	5	True	False
365	5	5	True	False



Level\_Rate Data, Name - None  
IDay            Rate

Flashboard Data, Name - None  
Elevation      Volume            Trip            Reset

Bypass Data, Name - Q100 all year  
IDay            Data            OrInflow        Destination  
1                100            False            3  
365             100            False            3

Ramp\_Rate Data, Name - None  
IDay            UpRampDay        UpRampHour     DownRampDay     DownRampHour    Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal      Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No        Head\_Loss\_ID    Generator\_Per    Turbine\_Perf\_    Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 8, Name = Current Operations  
Unit\_No        Unit\_HL        Common\_HL        Use\_Com2        Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 37, Name = Current Operations  
Head            Flow            Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 7, Name = Current Operations  
gOutput        Eff            Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay            Unit

Min\_Unit Data, Name - None  
Head            Flow            Eff            CenterLine        Headloss  
GeneratorEff    OpStyle

Scenario Information for Hells Canyon

Physical Setting Conditions, Name - PropOps\_HCDamCurve\_grid20ft

Res\_Storage Data, Name - CEQUAL RS Curve 20ft drawdown

Elevation	Storage
1666.7	135049
1668.3	138532
1669.9	142016
1673.2	148983
1674.9	152701
1676.5	156419
1679.8	163855
1683.1	171642
1686.4	179429
1689.6	187475
1692.9	195521

Tailwater Data, Name - Current Operations

Flow	Elevation
6000	1467.98
7000	1468.91
8000	1469.68
9000	1470.34
12000	1471.91
14000	1472.77
18000	1474.1
20000	1474.89
24000	1476.1
28000	1477.21
30000	1477.74
35000	1478.98
40000	1480.14
44000	1481.01
48000	1481.84
54000	1483.01
60000	1484.09
65000	1484.92
72500	1486.06
75000	1486.41
80000	1487.08
85000	1487.68
90000	1488.24
95000	1488.73
100000	1489.18
105000	1489.57

Ramp\_Curve Data, Name - HC Dam rating curve

Flow	Elevation
0	59
3950	62

4710	62.5
5531	63
6412	63.5
7352	64
9407	65
10520	65.5
11690	66
12920	66.5
14200	67
16940	68
19890	69
23050	70
26430	71
30020	72
33820	73
37830	74
42040	75
46450	76
51070	77
55880	78
60890	79
66100	80
71500	81
77100	82
82900	83
88890	84
95070	85
101400	86
108000	87

Outlet1 Data, Name - None  
Elevation      Flow

Outlet2 Data, Name - Current Operations  
Elevation      Flow

1600	0
1668	168000
1673	195000
1678	226000
1683	255000
1688	284000
1691	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant_Options Data, Name - Current Operations				
Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	2	2

Operating Setting Conditions, Name - OP-1\_Scenariola\_Lo

Minimum Data, Name - Proposed Ops low

IDay	Data	OrInflow	Dependent
1	8500	False	False
152	8500	False	False
153	6500	True	False
293	6500	True	False
294	9000	False	False
345	9000	False	False
346	8500	False	False
365	8500	False	False

Base Data, Name - None

IDay	Data	OrInflow	Dependent
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Target\_Elev Data, Name - H1687

IDay	Elevation	HardTarget
1	1687	0
365	1687	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1688
365	1688

Min\_Elev Data, Name - 1668ft all year

IDay	Elevation
1	1668
365	1668

Level\_Fluct Data, Name - LF20 all year

IDay	Weekday	Weekend	Hard	Spill
1	20	20	False	False
365	20	20	False	False

Level\_Rate Data, Name - None

IDay	Rate
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Flashboard Data, Name - None

Elevation	Volume	Trip	Reset
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Bypass Data, Name - None

IDay	Data	OrInflow	Destination
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Ramp\_Rate Data, Name - OP-1\_Sceneriola

IDay	UpRampDay	UpRampHour	DownRampDay	DownRampHour	Type
1	1E-12	1E-12	1E-12	1E-12	Stage
False					

365                    1E-12                    1E-12                    1E-12                    1E-12                    Stage  
False

Withdrawal Data, Name - None  
Withdrawal      Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No            Head\_Loss\_ID    Generator\_Per    Turbine\_Perf\_    Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 11, Name = Current Operations  
Unit\_No            Unit\_HL            Common\_HL            Use\_Com2            Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 40, Name = Current Operations  
Head                Flow                Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 9, Name = Current Operations  
gOutput            Eff                Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay                Unit

Min\_Unit Data, Name - None  
Head                Flow                Eff                CenterLine            Headloss  
GeneratorEff    OpStyle



Complete Scenario Data for Scenario—OP-1\_Scenario1b\_average written out on 11/03/2004 9:42:07 AM

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Complete Scenario Data for Scenario - OP-1\_Scenariolb\_average  
 Written out on 11/03/2004 9:42:07 AM

System Misc. Name - Proposed Ops Average					
Load_Shape_ID	CarryOver	MaxPeak	ForecastDays	ForecastAcr	
Fall_Chinook_	Flood_Control	Max_Discharge			
8	False	False	3	1	15
4	0				

Load_Shape Data, Name - FP01 SP HL pricing			
IMonth	Period	Duration	Price
1	1	6	
1	2	0	
1	3	6	
1	4	5	
1	5	5	
1	6	0	
1	7	2	
1	8	7	
1	9	6	
1	10	4	
1	11	5	
1	12	2	
2	1	6	
2	2	0	
2	3	6	
2	4	5	
2	5	5	
2	6	0	
2	7	2	
2	8	7	
2	9	6	
2	10	4	
2	11	5	
2	12	2	
3	1	6	
3	2	0	
3	3	6	
3	4	5	
3	5	5	
3	6	0	
3	7	2	
3	8	7	
3	9	6	
3	10	4	
3	11	5	
3	12	2	
4	1	6	
4	2	0	
4	3	8	
4	4	0	
4	5	8	
4	6	0	
4	7	2	

4	8	7
4	9	8
4	10	0
4	11	7
4	12	2
5	1	6
5	2	0
5	3	8
5	4	0
5	5	8
5	6	0
5	7	2
5	8	7
5	9	8
5	10	0
5	11	7
5	12	2
6	1	6
6	2	0
6	3	8
6	4	0
6	5	8
6	6	0
6	7	2
6	8	7
6	9	8
6	10	0
6	11	7
6	12	2
7	1	6
7	2	0
7	3	16
7	4	0
7	5	0
7	6	0
7	7	2
7	8	8
7	9	14
7	10	0
7	11	0
7	12	2
8	1	6
8	2	0
8	3	16
8	4	0
8	5	0
8	6	0
8	7	2
8	8	8
8	9	14
8	10	0
8	11	0
8	12	2
9	1	6
9	2	0
9	3	16
9	4	0

9	5	0
9	6	0
9	7	2
9	8	8
9	9	14
9	10	0
9	11	0
9	12	2
10	1	6
10	2	0
10	3	6
10	4	4
10	5	6
10	6	0
10	7	2
10	8	7
10	9	6
10	10	4
10	11	5
10	12	2
11	1	6
11	2	0
11	3	6
11	4	4
11	5	6
11	6	0
11	7	2
11	8	7
11	9	6
11	10	4
11	11	5
11	12	2
12	1	6
12	2	0
12	3	6
12	4	4
12	5	6
12	6	0
12	7	2
12	8	7
12	9	6
12	10	4
12	11	5
12	12	2

Fall\_Chinook Data, Name - Proposed Ops Average

Draw_Start	Refill_Start	Refill_End	Max_Discharge	Minimum_Max
Maximum_Max	Target_Elevat	Refill_Elevat	Allow_Peak	
252	294	345	11500	0
0	2076	False		0

Flood\_Control Data, Name - RC V2000

IDay	Dalles_Foreca	Brownlee_Fore	Req_Volume
59	75	3	0
59	75	4	200

59	75	5	300
59	75	6	400
59	85	3	150
59	85	4	300
59	85	5	350
59	85	6	400
59	95	3	200
59	95	4	300
59	95	5	350
59	95	6	400
59	105	3	300
59	105	4	400
59	105	5	400
59	105	6	400
59	115	3	300
59	115	4	400
59	115	5	500
59	115	6	500
90	75	3	0
90	75	4	100
90	75	5	200
90	75	6	350
90	85	3	100
90	85	4	300
90	85	5	400
90	85	6	450
90	95	3	150
90	95	4	300
90	95	5	400
90	95	6	500
90	105	3	200
90	105	4	425
90	105	5	475
90	105	6	500
90	115	3	250
90	115	4	450
90	115	5	600
90	115	6	750
105	75	3	0
105	75	4	50
105	75	5	150
105	75	6	250
105	85	3	50
105	85	4	250
105	85	5	400
105	85	6	500
105	95	3	100
105	95	4	300
105	95	5	425
105	95	6	550
105	105	3	150
105	105	4	450
105	105	5	525
105	105	6	600
105	115	3	200
105	115	4	500
105	115	5	650

105	115	6	850
120	75	3	0
120	75	4	0
120	75	5	50
120	75	6	150
120	85	3	0
120	85	4	250
120	85	5	400
120	85	6	500
120	95	3	50
120	95	4	300
120	95	5	450
120	95	6	600
120	105	3	100
120	105	4	450
120	105	5	550
120	105	6	700
120	115	3	150
120	115	4	550
120	115	5	750
120	115	6	980

Max\_Discharge Data, Name - None  
IDay Flow

Scenario Information for Brownlee

Physical Setting Conditions, Name - Current Ops 97b

Res\_Storage Data, Name - CEQUAL97b

Elevation	Storage
1973.2	432247
1979.8	475263
1983.2	498341
1986.5	521420
1989.8	546048
1993.1	570676
1996.5	596713
1999.8	622750
2003.1	650212
2006.5	677675
2009.8	706573
2013.1	735471
2016.5	765566
2019.8	795660
2023.1	827202
2029.8	891862
2033.1	924980
2036.4	959727
2039.8	994474

2043.1	1030689
2046.4	1066905
2049.8	1104803
2053.1	1142701
2056.4	1182254
2059.7	1221807
2063.1	1263344
2066.4	1304880
2069.7	1348494
2073.06	1392108
2076.4	1437212
2079.7	1482317

Tailwater Data, Name - Current Operations  
Flow                      Elevation

500	0.32
1000	0.38
2000	0.51
3000	0.63
4000	0.75
5000	0.87
6000	1
7000	1.11
8000	1.23
9000	1.35
10000	1.47
11000	1.59
12000	1.7
13000	1.82
14000	1.93
15000	2.05
20000	2.61
25000	3.15
30000	3.67
35000	4.18
40000	4.66
45000	5.13
50000	5.58
55000	6
60000	6.42
65000	6.81
70000	7.18
75000	7.54
80000	7.87
85000	8.19
90000	8.49
95000	8.77
100000	9.03

Ramp\_Curve Data, Name - None  
Flow                      Elevation

Outlet1 Data, Name - None  
Elevation              Flow

Outlet2 Data, Name - Current Operations

Elevation	Flow
2027	0
2033	5250
2037	12500
2044	27750
2050	46000
2077	171300

Outlet3 Data, Name - Brownlee Gates

Elevation	Flow
1976	51500
1990	69000
2010	87500
2027	100500
2050	116000
2079	132500

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops Average

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - Proposed Ops Average

IDay	Data	OrInflow	Dependent
1	10500	False	False
152	10500	False	False
153	6500	True	False
293	6500	True	False
294	11500	False	False
345	11500	False	False
346	10500	False	False
365	10500	False	False

Target\_Elev Data, Name - Proposed Ops Average

IDay	Elevation	HardTarget
1	2076	0
7	2076	0
158	2069	0
189	2076	0
243	2069	0
252	2069	0
365	2076	0

Flood\_Elev Data, Name - H2077 all year

IDay	Elevation
------	-----------

1 2077  
365 2077

Min\_Elev Data, Name - H1976 all year  
IDay Elevation

1 1976  
365 1976

Level\_Fluct Data, Name - LF3 all yr  
IDay Weekday Weekend

			Hard	Spill
1	3	3	False	False
244	3	3	False	False
365	3	3	False	False

Level\_Rate Data, Name - None  
IDay Rate

Flashboard Data, Name - None  
Elevation Volume Trip Reset

Bypass Data, Name - None  
IDay Data OrInflow Destination

Ramp\_Rate Data, Name - None  
IDay UpRampDay UpRampHour DownRampDay DownRampHour Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 6, Name = Current Operations  
Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 34, Name = Current Operations  
Head Flow Eff

**IPC Proprietary Data**

Turbine Performance, ID = 47, Name = Unit 5 n  
Head Flow Eff



**IPC Proprietary Data**

Generator Performance Data, ID = 5, Name = Unit 5 Current Ops  
gOutput            Eff                    Cap

**IPC Proprietary Data**

Generator Performance Data, ID = 6, Name = Units 1 - 4 Current Ops  
gOutput            Eff                    Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay                Unit

Min\_Unit Data, Name - None  
Head                Flow                    Eff                    CenterLine            Headloss  
GeneratorEff    OpStyle

Scenario Information for Oxbow

Physical Setting Conditions, Name - Current Operations

Res\_Storage Data, Name - CEQUAL RS Curve

Elevation	Storage
1786.42	38536.44
1789.7	41746
1792.98	44954.86
1796.3	48465
1799.54	51975.63
1802.8	55731
1806.1	59487

Tailwater Data, Name - Current Operations

Flow	Elevation
1	1490

Ramp\_Curve Data, Name - None

Flow	Elevation
------	-----------

Outlet1 Data, Name - None

Elevation	Flow
-----------	------

Outlet2 Data, Name - Current Operations

Elevation	Flow
-----------	------

1755	0
1765	25000
1773	50000
1778	55000
1783	100000
1787	125000
1792	150000
1795	175000
1798	200000
1802	225000
1805	250000
1808	275000
1811	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1803

IDay	Elevation	HardTarget
1	1803	0
365	1803	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1805
365	1805

Min\_Elev Data, Name - H1795 all year

IDay	Elevation
1	1795
365	1795

Level\_Fluct Data, Name - LF5 all year

IDay	Weekday	Weekend	Hard	Spill
1	5	5	True	False
365	5	5	True	False

Level\_Rate Data, Name - None  
IDay            Rate

Flashboard Data, Name - None  
Elevation      Volume            Trip            Reset

Bypass Data, Name - Q100 all year  
IDay            Data            OrInflow        Destination

1	100	False	3
365	100	False	3

Ramp\_Rate Data, Name - None  
IDay            UpRampDay        UpRampHour      DownRampDay      DownRampHour      Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal      Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No          Head\_Loss\_ID      Generator\_Per      Turbine\_Perf\_      Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 8, Name = Current Operations  
Unit\_No          Unit\_HL            Common\_HL        Use\_Com2            Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 37, Name = Current Operations  
Head            Flow            Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 7, Name = Current Operations  
gOutput          Eff            Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay            Unit

Min\_Unit Data, Name - None  
Head            Flow            Eff            CenterLine        Headloss  
GeneratorEff    OpStyle

Scenario Information for Hells Canyon

Physical Setting Conditions, Name - PropOps\_HCDamCurve\_grid20ft

Res\_Storage Data, Name - CEQUAL RS Curve 20ft drawdown

Elevation            Storage

1666.7	135049
1668.3	138532
1669.9	142016
1673.2	148983
1674.9	152701
1676.5	156419
1679.8	163855
1683.1	171642
1686.4	179429
1689.6	187475
1692.9	195521

Tailwater Data, Name - Current Operations

Flow                    Elevation

6000	1467.98
7000	1468.91
8000	1469.68
9000	1470.34
12000	1471.91
14000	1472.77
18000	1474.1
20000	1474.89
24000	1476.1
28000	1477.21
30000	1477.74
35000	1478.98
40000	1480.14
44000	1481.01
48000	1481.84
54000	1483.01
60000	1484.09
65000	1484.92
72500	1486.06
75000	1486.41
80000	1487.08
85000	1487.68
90000	1488.24
95000	1488.73
100000	1489.18
105000	1489.57

Ramp\_Curve Data, Name - HC Dam rating curve

Flow                    Elevation

0	59
3950	62

4710	62.5
5531	63
6412	63.5
7352	64
9407	65
10520	65.5
11690	66
12920	66.5
14200	67
16940	68
19890	69
23050	70
26430	71
30020	72
33820	73
37830	74
42040	75
46450	76
51070	77
55880	78
60890	79
66100	80
71500	81
77100	82
82900	83
88890	84
95070	85
101400	86
108000	87

Outlet1 Data, Name - None  
Elevation      Flow

Outlet2 Data, Name - Current Operations  
Elevation      Flow

1600	0
1668	168000
1673	195000
1678	226000
1683	255000
1688	284000
1691	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant_Options Data, Name - Current Operations				
Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	2	2

Operating Setting Conditions, Name - OP-1\_Scenariolb

Minimum Data, Name - Proposed Ops Average

IDay	Data	OrInflow	Dependent
1	10500	False	False
152	10500	False	False
153	6500	True	False
293	6500	True	False
294	11500	False	False
345	11500	False	False
346	10500	False	False
365	10500	False	False

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1687

IDay	Elevation	HardTarget
1	1687	0
365	1687	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1688
365	1688

Min\_Elev Data, Name - 1668ft all year

IDay	Elevation
1	1668
365	1668

Level\_Fluct Data, Name - LF20 all year

IDay	Weekday	Weekend	Hard	Spill
1	20	20	False	False
365	20	20	False	False

Level\_Rate Data, Name - None

IDay	Rate
------	------

Flashboard Data, Name - None

Elevation	Volume	Trip	Reset
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Bypass Data, Name - None

IDay	Data	OrInflow	Destination
------	------	----------	-------------

Ramp\_Rate Data, Name - RR0.167

IDay	UpRampDay	UpRampHour	DownRampDay	DownRampHour	Type
1	5	0.167	5	0.167	Stage
False					

365            5                    0.167            5                    0.167            Stage  
False

Withdrawal Data, Name - None  
Withdrawal      Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No            Head\_Loss\_ID    Generator\_Per    Turbine\_Perf\_    Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 11, Name = Current Operations  
Unit\_No            Unit\_HL            Common\_HL            Use\_Com2            Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 40, Name = Current Operations  
Head                Flow                Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 9, Name = Current Operations  
gOutput            Eff                Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay                Unit

Min\_Unit Data, Name - None  
Head                Flow                Eff                CenterLine            Headloss  
GeneratorEff      OpStyle





Complete Scenario Data for Scenario—OP-1\_Scenario1b\_HI written out on 11/03/2004 9:42:22 AM

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Complete Scenario Data for Scenario - OP-1\_Scenariolb\_HI  
 Written out on 11/03/2004 9:42:22 AM

System Misc. Name - Proposed	Ops High	ForecastDays	ForecastAcr
Load_Shape_ID CarryOver	MaxPeak		
Fall_Chinook_ Flood_Control	Max_Discharge		
8	False	3	1
4	0		16

Load_Shape Data, Name - FP01	SP HL pricing	
IMonth	Period	
	Duration	
	Price	
1	1	6
1	2	0
1	3	6
1	4	5
1	5	5
1	6	0
1	7	2
1	8	7
1	9	6
1	10	4
1	11	5
1	12	2
2	1	6
2	2	0
2	3	6
2	4	5
2	5	5
2	6	0
2	7	2
2	8	7
2	9	6
2	10	4
2	11	5
2	12	2
3	1	6
3	2	0
3	3	6
3	4	5
3	5	5
3	6	0
3	7	2
3	8	7
3	9	6
3	10	4
3	11	5
3	12	2
4	1	6
4	2	0
4	3	8
4	4	0
4	5	8
4	6	0
4	7	2

4	8	7
4	9	8
4	10	0
4	11	7
4	12	2
5	1	6
5	2	0
5	3	8
5	4	0
5	5	8
5	6	0
5	7	2
5	8	7
5	9	8
5	10	0
5	11	7
5	12	2
6	1	6
6	2	0
6	3	8
6	4	0
6	5	8
6	6	0
6	7	2
6	8	7
6	9	8
6	10	0
6	11	7
6	12	2
7	1	6
7	2	0
7	3	16
7	4	0
7	5	0
7	6	0
7	7	2
7	8	8
7	9	14
7	10	0
7	11	0
7	12	2
8	1	6
8	2	0
8	3	16
8	4	0
8	5	0
8	6	0
8	7	2
8	8	8
8	9	14
8	10	0
8	11	0
8	12	2
9	1	6
9	2	0
9	3	16
9	4	0

9	5	0
9	6	0
9	7	2
9	8	8
9	9	14
9	10	0
9	11	0
9	12	2
10	1	6
10	2	0
10	3	6
10	4	4
10	5	6
10	6	0
10	7	2
10	8	7
10	9	6
10	10	4
10	11	5
10	12	2
11	1	6
11	2	0
11	3	6
11	4	4
11	5	6
11	6	0
11	7	2
11	8	7
11	9	6
11	10	4
11	11	5
11	12	2
12	1	6
12	2	0
12	3	6
12	4	4
12	5	6
12	6	0
12	7	2
12	8	7
12	9	6
12	10	4
12	11	5
12	12	2

Fall\_Chinook Data, Name - Proposed Ops High

Draw_Start	Refill_Start	Refill_End	Max_Discharge	Minimum_Max
Maximum_Max	Target_Elevat	Refill_Elevat	Allow_Peak	
252	294	345	13000	0
0	2076	False		0

Flood\_Control Data, Name - RC V2000

IDay	Dalles_Foreca	Brownlee_Fore	Req_Volume
59	75	3	0
59	75	4	200

59	75	5	300
59	75	6	400
59	85	3	150
59	85	4	300
59	85	5	350
59	85	6	400
59	95	3	200
59	95	4	300
59	95	5	350
59	95	6	400
59	105	3	300
59	105	4	400
59	105	5	400
59	105	6	400
59	115	3	300
59	115	4	400
59	115	5	500
59	115	6	500
90	75	3	0
90	75	4	100
90	75	5	200
90	75	6	350
90	85	3	100
90	85	4	300
90	85	5	400
90	85	6	450
90	95	3	150
90	95	4	300
90	95	5	400
90	95	6	500
90	105	3	200
90	105	4	425
90	105	5	475
90	105	6	500
90	115	3	250
90	115	4	450
90	115	5	600
90	115	6	750
105	75	3	0
105	75	4	50
105	75	5	150
105	75	6	250
105	85	3	50
105	85	4	250
105	85	5	400
105	85	6	500
105	95	3	100
105	95	4	300
105	95	5	425
105	95	6	550
105	105	3	150
105	105	4	450
105	105	5	525
105	105	6	600
105	115	3	200
105	115	4	500
105	115	5	650

105	115	6	850
120	75	3	0
120	75	4	0
120	75	5	50
120	75	6	150
120	85	3	0
120	85	4	250
120	85	5	400
120	85	6	500
120	95	3	50
120	95	4	300
120	95	5	450
120	95	6	600
120	105	3	100
120	105	4	450
120	105	5	550
120	105	6	700
120	115	3	150
120	115	4	550
120	115	5	750
120	115	6	980

Max\_Discharge Data, Name - None  
IDay Flow

Scenario Information for Brownlee

Physical Setting Conditions, Name - Current Ops 97b

Res\_Storage Data, Name - CEQUAL97b

Elevation	Storage
1973.2	432247
1979.8	475263
1983.2	498341
1986.5	521420
1989.8	546048
1993.1	570676
1996.5	596713
1999.8	622750
2003.1	650212
2006.5	677675
2009.8	706573
2013.1	735471
2016.5	765566
2019.8	795660
2023.1	827202
2029.8	891862
2033.1	924980
2036.4	959727
2039.8	994474

2043.1	1030689
2046.4	1066905
2049.8	1104803
2053.1	1142701
2056.4	1182254
2059.7	1221807
2063.1	1263344
2066.4	1304880
2069.7	1348494
2073.06	1392108
2076.4	1437212
2079.7	1482317

Tailwater Data, Name - Current Operations  
Flow                      Elevation

500	0.32
1000	0.38
2000	0.51
3000	0.63
4000	0.75
5000	0.87
6000	1
7000	1.11
8000	1.23
9000	1.35
10000	1.47
11000	1.59
12000	1.7
13000	1.82
14000	1.93
15000	2.05
20000	2.61
25000	3.15
30000	3.67
35000	4.18
40000	4.66
45000	5.13
50000	5.58
55000	6
60000	6.42
65000	6.81
70000	7.18
75000	7.54
80000	7.87
85000	8.19
90000	8.49
95000	8.77
100000	9.03

Ramp\_Curve Data, Name - None  
Flow                      Elevation

Outlet1 Data, Name - None  
Elevation                  Flow



Outlet2 Data, Name - Current Operations

Elevation	Flow
2027	0
2033	5250
2037	12500
2044	27750
2050	46000
2077	171300

Outlet3 Data, Name - Brownlee Gates

Elevation	Flow
1976	51500
1990	69000
2010	87500
2027	100500
2050	116000
2079	132500

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops High

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - Proposed Ops High

IDay	Data	OrInflow	Dependent
1	12000	False	False
152	12000	False	False
153	6500	True	False
293	6500	True	False
294	13000	False	False
345	13000	False	False
346	12000	False	False
365	12000	False	False

Target\_Elev Data, Name - Proposed Ops High

IDay	Elevation	HardTarget
1	2076	0
7	2076	0
189	2076	0
243	2059	0
252	2059	0
253	2076	0
365	2076	0

Flood\_Elev Data, Name - H2077 all year

IDay	Elevation
------	-----------

1 2077  
365 2077

Min\_Elev Data, Name - H1976 all year  
IDay Elevation

1 1976  
365 1976

Level\_Fluct Data, Name - LF3 all yr  
IDay Weekday Weekend

	Weekday	Weekend	Hard	Spill
1	3	3	False	False
244	3	3	False	False
365	3	3	False	False

Level\_Rate Data, Name - None  
IDay Rate

Flashboard Data, Name - None  
Elevation Volume Trip Reset

Bypass Data, Name - None  
IDay Data OrInflow Destination

Ramp\_Rate Data, Name - None  
IDay UpRampDay UpRampHour DownRampDay DownRampHour Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 6, Name = Current Operations  
Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 34, Name = Current Operations  
Head Flow Eff

**IPC Proprietary Data**

Turbine Performance, ID = 47, Name = Unit 5 n  
Head Flow Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 5, Name = Unit 5 Current Ops  
gOutput            Eff            Cap

**IPC Proprietary Data**

Generator Performance Data, ID = 6, Name = Units 1 - 4 Current Ops  
gOutput            Eff            Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay            Unit

Min\_Unit Data, Name - None  
Head            Flow            Eff            CenterLine            Headloss  
GeneratorEff    OpStyle

Scenario Information for Oxbow

Physical Setting Conditions, Name - Current Operations

Res\_Storage Data, Name - CEQUAL RS Curve  
Elevation        Storage

1786.42	38536.44
1789.7	41746
1792.98	44954.86
1796.3	48465
1799.54	51975.63
1802.8	55731
1806.1	59487

Tailwater Data, Name - Current Operations  
Flow            Elevation

1	1490
---	------

Ramp\_Curve Data, Name - None  
Flow            Elevation

Outlet1 Data, Name - None  
Elevation        Flow

Outlet2 Data, Name - Current Operations  
Elevation        Flow

1755	0
1765	25000
1773	50000
1778	55000
1783	100000
1787	125000
1792	150000
1795	175000
1798	200000
1802	225000
1805	250000
1808	275000
1811	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1803

IDay	Elevation	HardTarget
1	1803	0
365	1803	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1805
365	1805

Min\_Elev Data, Name - H1795 all year

IDay	Elevation
1	1795
365	1795

Level\_Fluct Data, Name - LF5 all year

IDay	Weekday	Weekend	Hard	Spill
1	5	5	True	False
365	5	5	True	False

Level\_Rate Data, Name - None  
IDay Rate

Flashboard Data, Name - None  
Elevation Volume Trip Reset

Bypass Data, Name - Q100 all year  
IDay Data OrInflow Destination

1	100	False	3
365	100	False	3

Ramp\_Rate Data, Name - None  
IDay UpRampDay UpRampHour DownRampDay DownRampHour Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 8, Name = Current Operations  
Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 37, Name = Current Operations  
Head Flow Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 7, Name = Current Operations  
gOutput Eff Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay Unit

Min\_Unit Data, Name - None  
Head Flow Eff CenterLine Headloss  
GeneratorEff OpStyle

Scenario Information for Hells Canyon

Physical Setting Conditions, Name - PropOps\_HCDamCurve\_grid20ft

Res\_Storage Data, Name - CEQUAL RS Curve 20ft drawdown

Elevation	Storage
1666.7	135049
1668.3	138532
1669.9	142016
1673.2	148983
1674.9	152701
1676.5	156419
1679.8	163855
1683.1	171642
1686.4	179429
1689.6	187475
1692.9	195521

Tailwater Data, Name - Current Operations

Flow	Elevation
6000	1467.98
7000	1468.91
8000	1469.68
9000	1470.34
12000	1471.91
14000	1472.77
18000	1474.1
20000	1474.89
24000	1476.1
28000	1477.21
30000	1477.74
35000	1478.98
40000	1480.14
44000	1481.01
48000	1481.84
54000	1483.01
60000	1484.09
65000	1484.92
72500	1486.06
75000	1486.41
80000	1487.08
85000	1487.68
90000	1488.24
95000	1488.73
100000	1489.18
105000	1489.57

Ramp\_Curve Data, Name - HC Dam rating curve

Flow	Elevation
0	59
3950	62

4710	62.5
5531	63
6412	63.5
7352	64
9407	65
10520	65.5
11690	66
12920	66.5
14200	67
16940	68
19890	69
23050	70
26430	71
30020	72
33820	73
37830	74
42040	75
46450	76
51070	77
55880	78
60890	79
66100	80
71500	81
77100	82
82900	83
88890	84
95070	85
101400	86
108000	87

Outlet1 Data, Name - None  
Elevation      Flow

Outlet2 Data, Name - Current Operations  
Elevation      Flow

1600	0
1668	168000
1673	195000
1678	226000
1683	255000
1688	284000
1691	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant_Options Data, Name - Current Operations				
Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	2	2

Operating Setting Conditions, Name - OP-1\_Scenariolb\_HI

Minimum Data, Name - Proposed Ops High

IDay	Data	OrInflow	Dependent
1	12000	False	False
152	12000	False	False
153	6500	True	False
293	6500	True	False
294	13000	False	False
345	13000	False	False
346	12000	False	False
365	12000	False	False

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1687

IDay	Elevation	HardTarget
1	1687	0
365	1687	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1688
365	1688

Min\_Elev Data, Name - 1668ft all year

IDay	Elevation
1	1668
365	1668

Level\_Fluct Data, Name - LF20 all year

IDay	Weekday	Weekend	Hard	Spill
1	20	20	False	False
365	20	20	False	False

Level\_Rate Data, Name - None

IDay	Rate
------	------

Flashboard Data, Name - None

Elevation	Volume	Trip	Reset
-----------	--------	------	-------

Bypass Data, Name - None

IDay	Data	OrInflow	Destination
------	------	----------	-------------

Ramp\_Rate Data, Name - RR0.167

IDay	UpRampDay	UpRampHour	DownRampDay	DownRampHour	Type
1	5	0.167	5	0.167	Stage
False					



365            5                    0.167            5                    0.167            Stage  
False

Withdrawal Data, Name - None  
Withdrawal      Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No            Head\_Loss\_ID    Generator\_Per    Turbine\_Perf\_    Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 11, Name = Current Operations  
Unit\_No            Unit\_HL            Common\_HL            Use\_Com2            Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 40, Name = Current Operations  
Head                Flow                Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 9, Name = Current Operations  
gOutput            Eff                Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay                Unit

Min\_Unit Data, Name - None  
Head                Flow                Eff                CenterLine            Headloss  
GeneratorEff      OpStyle



Complete Scenario Data for Scenario—OP-1\_Scenario1b\_LO written out on 11/03/2004 9:46:44 AM

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Complete Scenario Data for Scenario - OP-1\_Scenariolb\_LO  
 Written out on 11/03/2004 9:46:44 AM

System Misc. Name - Proposed Ops Low					
Load_Shape_ID	CarryOver	MaxPeak	ForecastDays	ForecastAcr	
Fall_Chinook_	Flood_Control	Max_Discharge			
8	False	False	3	1	14
4	0				

Load_Shape Data, Name - FP01 SP HL pricing			
IMonth	Period	Duration	Price
1	1	6	
1	2	0	
1	3	6	
1	4	5	
1	5	5	
1	6	0	
1	7	2	
1	8	7	
1	9	6	
1	10	4	
1	11	5	
1	12	2	
2	1	6	
2	2	0	
2	3	6	
2	4	5	
2	5	5	
2	6	0	
2	7	2	
2	8	7	
2	9	6	
2	10	4	
2	11	5	
2	12	2	
3	1	6	
3	2	0	
3	3	6	
3	4	5	
3	5	5	
3	6	0	
3	7	2	
3	8	7	
3	9	6	
3	10	4	
3	11	5	
3	12	2	
4	1	6	
4	2	0	
4	3	8	
4	4	0	
4	5	8	
4	6	0	
4	7	2	

4	8	7
4	9	8
4	10	0
4	11	7
4	12	2
5	1	6
5	2	0
5	3	8
5	4	0
5	5	8
5	6	0
5	7	2
5	8	7
5	9	8
5	10	0
5	11	7
5	12	2
6	1	6
6	2	0
6	3	8
6	4	0
6	5	8
6	6	0
6	7	2
6	8	7
6	9	8
6	10	0
6	11	7
6	12	2
7	1	6
7	2	0
7	3	16
7	4	0
7	5	0
7	6	0
7	7	2
7	8	8
7	9	14
7	10	0
7	11	0
7	12	2
8	1	6
8	2	0
8	3	16
8	4	0
8	5	0
8	6	0
8	7	2
8	8	8
8	9	14
8	10	0
8	11	0
8	12	2
9	1	6
9	2	0
9	3	16
9	4	0

9	5	0
9	6	0
9	7	2
9	8	8
9	9	14
9	10	0
9	11	0
9	12	2
10	1	6
10	2	0
10	3	6
10	4	4
10	5	6
10	6	0
10	7	2
10	8	7
10	9	6
10	10	4
10	11	5
10	12	2
11	1	6
11	2	0
11	3	6
11	4	4
11	5	6
11	6	0
11	7	2
11	8	7
11	9	6
11	10	4
11	11	5
11	12	2
12	1	6
12	2	0
12	3	6
12	4	4
12	5	6
12	6	0
12	7	2
12	8	7
12	9	6
12	10	4
12	11	5
12	12	2

Fall\_Chinook Data, Name - Proposed Ops Low

Draw_Start	Refill_Start	Refill_End	Max_Discharge	Minimum_Max
Maximum_Max	Target_Elevat	Refill_Elevat	Allow_Peak	
252	294	345	9000	0
0	2076	False		0

Flood\_Control Data, Name - RC V2000

IDay	Dalles_Foreca	Brownlee_Fore	Req_Volume
59	75	3	0
59	75	4	200

59	75	5	300
59	75	6	400
59	85	3	150
59	85	4	300
59	85	5	350
59	85	6	400
59	95	3	200
59	95	4	300
59	95	5	350
59	95	6	400
59	105	3	300
59	105	4	400
59	105	5	400
59	105	6	400
59	115	3	300
59	115	4	400
59	115	5	500
59	115	6	500
90	75	3	0
90	75	4	100
90	75	5	200
90	75	6	350
90	85	3	100
90	85	4	300
90	85	5	400
90	85	6	450
90	95	3	150
90	95	4	300
90	95	5	400
90	95	6	500
90	105	3	200
90	105	4	425
90	105	5	475
90	105	6	500
90	115	3	250
90	115	4	450
90	115	5	600
90	115	6	750
105	75	3	0
105	75	4	50
105	75	5	150
105	75	6	250
105	85	3	50
105	85	4	250
105	85	5	400
105	85	6	500
105	95	3	100
105	95	4	300
105	95	5	425
105	95	6	550
105	105	3	150
105	105	4	450
105	105	5	525
105	105	6	600
105	115	3	200
105	115	4	500
105	115	5	650



105	115	6	850
120	75	3	0
120	75	4	0
120	75	5	50
120	75	6	150
120	85	3	0
120	85	4	250
120	85	5	400
120	85	6	500
120	95	3	50
120	95	4	300
120	95	5	450
120	95	6	600
120	105	3	100
120	105	4	450
120	105	5	550
120	105	6	700
120	115	3	150
120	115	4	550
120	115	5	750
120	115	6	980

Max\_Discharge Data, Name - None  
IDay Flow

Scenario Information for Brownlee

Physical Setting Conditions, Name - Current Ops 97b

Res\_Storage Data, Name - CEQUAL97b

Elevation	Storage
1973.2	432247
1979.8	475263
1983.2	498341
1986.5	521420
1989.8	546048
1993.1	570676
1996.5	596713
1999.8	622750
2003.1	650212
2006.5	677675
2009.8	706573
2013.1	735471
2016.5	765566
2019.8	795660
2023.1	827202
2029.8	891862
2033.1	924980
2036.4	959727
2039.8	994474

2043.1	1030689
2046.4	1066905
2049.8	1104803
2053.1	1142701
2056.4	1182254
2059.7	1221807
2063.1	1263344
2066.4	1304880
2069.7	1348494
2073.06	1392108
2076.4	1437212
2079.7	1482317

Tailwater Data, Name - Current Operations  
Flow                      Elevation

500	0.32
1000	0.38
2000	0.51
3000	0.63
4000	0.75
5000	0.87
6000	1
7000	1.11
8000	1.23
9000	1.35
10000	1.47
11000	1.59
12000	1.7
13000	1.82
14000	1.93
15000	2.05
20000	2.61
25000	3.15
30000	3.67
35000	4.18
40000	4.66
45000	5.13
50000	5.58
55000	6
60000	6.42
65000	6.81
70000	7.18
75000	7.54
80000	7.87
85000	8.19
90000	8.49
95000	8.77
100000	9.03

Ramp\_Curve Data, Name - None  
Flow                      Elevation

Outlet1 Data, Name - None  
Elevation                  Flow

Outlet2 Data, Name - Current Operations

Elevation	Flow
2027	0
2033	5250
2037	12500
2044	27750
2050	46000
2077	171300

Outlet3 Data, Name - Brownlee Gates

Elevation	Flow
1976	51500
1990	69000
2010	87500
2027	100500
2050	116000
2079	132500

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops Low

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - Proposed Ops Low

IDay	Data	OrInflow	Dependent
1	8500	False	False
152	8500	False	False
153	6500	True	False
293	6500	True	False
294	9000	False	False
345	9000	False	False
346	8500	False	False
365	8500	False	False

Target\_Elev Data, Name - Proposed Ops Low

IDay	Elevation	HardTarget
1	2076	0
7	2076	0
121	2076	0
189	2076	0
243	2072	0
252	2072	0
365	2076	0

Flood\_Elev Data, Name - H2077 all year

IDay	Elevation
------	-----------

1 2077  
365 2077

Min\_Elev Data, Name - H1976 all year  
IDay Elevation

1 1976  
365 1976

Level\_Fluct Data, Name - LF3 all yr  
IDay Weekday Weekend

			Hard	Spill
1	3	3	False	False
244	3	3	False	False
365	3	3	False	False

Level\_Rate Data, Name - None  
IDay Rate

Flashboard Data, Name - None  
Elevation Volume Trip Reset

Bypass Data, Name - None  
IDay Data OrInflow Destination

Ramp\_Rate Data, Name - None  
IDay UpRampDay UpRampHour DownRampDay DownRampHour Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 6, Name = Current Operations  
Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 34, Name = Current Operations  
Head Flow Eff

**IPC Proprietary Data**

Turbine Performance, ID = 47, Name = Unit 5 n  
Head Flow Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 5, Name = Unit 5 Current Ops  
gOutput            Eff                    Cap

**IPC Proprietary Data**

Generator Performance Data, ID = 6, Name = Units 1 - 4 Current Ops  
gOutput            Eff                    Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay                Unit

Min\_Unit Data, Name - None  
Head                Flow                    Eff                    CenterLine            Headloss  
GeneratorEff    OpStyle

Scenario Information for Oxbow

Physical Setting Conditions, Name - Current Operations

Res\_Storage Data, Name - CEQUAL RS Curve  
Elevation            Storage

1786.42	38536.44
1789.7	41746
1792.98	44954.86
1796.3	48465
1799.54	51975.63
1802.8	55731
1806.1	59487

Tailwater Data, Name - Current Operations  
Flow                Elevation

1	1490
---	------

Ramp\_Curve Data, Name - None  
Flow                Elevation

Outlet1 Data, Name - None  
Elevation            Flow

Outlet2 Data, Name - Current Operations  
Elevation            Flow

1755	0
1765	25000
1773	50000
1778	55000
1783	100000
1787	125000
1792	150000
1795	175000
1798	200000
1802	225000
1805	250000
1808	275000
1811	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1803

IDay	Elevation	HardTarget
1	1803	0
365	1803	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1805
365	1805

Min\_Elev Data, Name - H1795 all year

IDay	Elevation
1	1795
365	1795

Level\_Fluct Data, Name - LF5 all year

IDay	Weekday	Weekend	Hard	Spill
1	5	5	True	False
365	5	5	True	False

Level\_Rate Data, Name - None  
IDay            Rate

Flashboard Data, Name - None  
Elevation      Volume            Trip            Reset

Bypass Data, Name - Q100 all year  
IDay            Data            OrInflow        Destination

1	100	False	3
365	100	False	3

Ramp\_Rate Data, Name - None  
IDay            UpRampDay        UpRampHour      DownRampDay      DownRampHour      Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal      Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No        Head\_Loss\_ID    Generator\_Per    Turbine\_Perf\_    Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 8, Name = Current Operations  
Unit\_No        Unit\_HL        Common\_HL        Use\_Com2        Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 37, Name = Current Operations  
Head            Flow            Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 7, Name = Current Operations  
gOutput        Eff            Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay            Unit

Min\_Unit Data, Name - None  
Head            Flow            Eff            CenterLine        Headloss  
GeneratorEff    OpStyle

Scenario Information for Hells Canyon

Physical Setting Conditions, Name - PropOps\_HCDamCurve\_grid20ft

Res\_Storage Data, Name - CEQUAL RS Curve 20ft drawdown

Elevation	Storage
1666.7	135049
1668.3	138532
1669.9	142016
1673.2	148983
1674.9	152701
1676.5	156419
1679.8	163855
1683.1	171642
1686.4	179429
1689.6	187475
1692.9	195521

Tailwater Data, Name - Current Operations

Flow	Elevation
6000	1467.98
7000	1468.91
8000	1469.68
9000	1470.34
12000	1471.91
14000	1472.77
18000	1474.1
20000	1474.89
24000	1476.1
28000	1477.21
30000	1477.74
35000	1478.98
40000	1480.14
44000	1481.01
48000	1481.84
54000	1483.01
60000	1484.09
65000	1484.92
72500	1486.06
75000	1486.41
80000	1487.08
85000	1487.68
90000	1488.24
95000	1488.73
100000	1489.18
105000	1489.57

Ramp\_Curve Data, Name - HC Dam rating curve

Flow	Elevation
0	59
3950	62



4710	62.5
5531	63
6412	63.5
7352	64
9407	65
10520	65.5
11690	66
12920	66.5
14200	67
16940	68
19890	69
23050	70
26430	71
30020	72
33820	73
37830	74
42040	75
46450	76
51070	77
55880	78
60890	79
66100	80
71500	81
77100	82
82900	83
88890	84
95070	85
101400	86
108000	87

Outlet1 Data, Name - None  
Elevation      Flow

Outlet2 Data, Name - Current Operations  
Elevation      Flow

1600	0
1668	168000
1673	195000
1678	226000
1683	255000
1688	284000
1691	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant_Options Data, Name - Current Operations				
Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	2	2

Operating Setting Conditions, Name - OP-1\_Scenariolb\_LOW

Minimum Data, Name - Proposed Ops low

IDay	Data	OrInflow	Dependent
1	8500	False	False
152	8500	False	False
153	6500	True	False
293	6500	True	False
294	9000	False	False
345	9000	False	False
346	8500	False	False
365	8500	False	False

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1687

IDay	Elevation	HardTarget
1	1687	0
365	1687	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1688
365	1688

Min\_Elev Data, Name - 1668ft all year

IDay	Elevation
1	1668
365	1668

Level\_Fluct Data, Name - LF20 all year

IDay	Weekday	Weekend	Hard	Spill
1	20	20	False	False
365	20	20	False	False

Level\_Rate Data, Name - None

IDay	Rate
------	------

Flashboard Data, Name - None

Elevation	Volume	Trip	Reset
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Bypass Data, Name - None

IDay	Data	OrInflow	Destination
------	------	----------	-------------

Ramp\_Rate Data, Name - RR0.167

IDay	UpRampDay	UpRampHour	DownRampDay	DownRampHour	Type
1	5	0.167	5	0.167	Stage
False					

365            5                    0.167            5                    0.167            Stage  
False

Withdrawal Data, Name - None  
Withdrawal      Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No            Head\_Loss\_ID    Generator\_Per    Turbine\_Perf\_    Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 11, Name = Current Operations  
Unit\_No            Unit\_HL            Common\_HL            Use\_Com2            Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 40, Name = Current Operations  
Head                Flow                Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 9, Name = Current Operations  
gOutput            Eff                Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay                Unit

Min\_Unit Data, Name - None  
Head                Flow                Eff                CenterLine            Headloss  
GeneratorEff      OpStyle



Complete Scenario Data for Scenario—OP-1\_Scenario1c\_average written out on 11/03/2004 9:47:02 AM

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Complete Scenario Data for Scenario - OP-1\_Scenariolc\_average  
 Written out on 11/03/2004 9:47:02 AM

System Misc. Name - Proposed Ops Average					
Load_Shape_ID	CarryOver	MaxPeak	ForecastDays	ForecastAcr	
Fall_Chinook_	Flood_Control	Max_Discharge			
8	False	False	3	1	15
4	0				

Load_Shape Data, Name - FP01 SP HL pricing			
IMonth	Period	Duration	Price
1	1	6	
1	2	0	
1	3	6	
1	4	5	
1	5	5	
1	6	0	
1	7	2	
1	8	7	
1	9	6	
1	10	4	
1	11	5	
1	12	2	
2	1	6	
2	2	0	
2	3	6	
2	4	5	
2	5	5	
2	6	0	
2	7	2	
2	8	7	
2	9	6	
2	10	4	
2	11	5	
2	12	2	
3	1	6	
3	2	0	
3	3	6	
3	4	5	
3	5	5	
3	6	0	
3	7	2	
3	8	7	
3	9	6	
3	10	4	
3	11	5	
3	12	2	
4	1	6	
4	2	0	
4	3	8	
4	4	0	
4	5	8	
4	6	0	
4	7	2	

4	8	7
4	9	8
4	10	0
4	11	7
4	12	2
5	1	6
5	2	0
5	3	8
5	4	0
5	5	8
5	6	0
5	7	2
5	8	7
5	9	8
5	10	0
5	11	7
5	12	2
6	1	6
6	2	0
6	3	8
6	4	0
6	5	8
6	6	0
6	7	2
6	8	7
6	9	8
6	10	0
6	11	7
6	12	2
7	1	6
7	2	0
7	3	16
7	4	0
7	5	0
7	6	0
7	7	2
7	8	8
7	9	14
7	10	0
7	11	0
7	12	2
8	1	6
8	2	0
8	3	16
8	4	0
8	5	0
8	6	0
8	7	2
8	8	8
8	9	14
8	10	0
8	11	0
8	12	2
9	1	6
9	2	0
9	3	16
9	4	0



9	5	0
9	6	0
9	7	2
9	8	8
9	9	14
9	10	0
9	11	0
9	12	2
10	1	6
10	2	0
10	3	6
10	4	4
10	5	6
10	6	0
10	7	2
10	8	7
10	9	6
10	10	4
10	11	5
10	12	2
11	1	6
11	2	0
11	3	6
11	4	4
11	5	6
11	6	0
11	7	2
11	8	7
11	9	6
11	10	4
11	11	5
11	12	2
12	1	6
12	2	0
12	3	6
12	4	4
12	5	6
12	6	0
12	7	2
12	8	7
12	9	6
12	10	4
12	11	5
12	12	2

Fall\_Chinook Data, Name - Proposed Ops Average

Draw_Start	Refill_Start	Refill_End	Max_Discharge	Minimum_Max
Maximum_Max	Target_Elevat	Refill_Elevat	Allow_Peak	
252	294	345	11500	0
0	2076	False		0

Flood\_Control Data, Name - RC V2000

IDay	Dalles_Foreca	Brownlee_Fore	Req_Volume
59	75	3	0
59	75	4	200

59	75	5	300
59	75	6	400
59	85	3	150
59	85	4	300
59	85	5	350
59	85	6	400
59	95	3	200
59	95	4	300
59	95	5	350
59	95	6	400
59	105	3	300
59	105	4	400
59	105	5	400
59	105	6	400
59	115	3	300
59	115	4	400
59	115	5	500
59	115	6	500
90	75	3	0
90	75	4	100
90	75	5	200
90	75	6	350
90	85	3	100
90	85	4	300
90	85	5	400
90	85	6	450
90	95	3	150
90	95	4	300
90	95	5	400
90	95	6	500
90	105	3	200
90	105	4	425
90	105	5	475
90	105	6	500
90	115	3	250
90	115	4	450
90	115	5	600
90	115	6	750
105	75	3	0
105	75	4	50
105	75	5	150
105	75	6	250
105	85	3	50
105	85	4	250
105	85	5	400
105	85	6	500
105	95	3	100
105	95	4	300
105	95	5	425
105	95	6	550
105	105	3	150
105	105	4	450
105	105	5	525
105	105	6	600
105	115	3	200
105	115	4	500
105	115	5	650

105	115	6	850
120	75	3	0
120	75	4	0
120	75	5	50
120	75	6	150
120	85	3	0
120	85	4	250
120	85	5	400
120	85	6	500
120	95	3	50
120	95	4	300
120	95	5	450
120	95	6	600
120	105	3	100
120	105	4	450
120	105	5	550
120	105	6	700
120	115	3	150
120	115	4	550
120	115	5	750
120	115	6	980

Max\_Discharge Data, Name - None  
IDay Flow

Scenario Information for Brownlee

Physical Setting Conditions, Name - Current Ops 97b

Res\_Storage Data, Name - CEQUAL97b

Elevation	Storage
1973.2	432247
1979.8	475263
1983.2	498341
1986.5	521420
1989.8	546048
1993.1	570676
1996.5	596713
1999.8	622750
2003.1	650212
2006.5	677675
2009.8	706573
2013.1	735471
2016.5	765566
2019.8	795660
2023.1	827202
2029.8	891862
2033.1	924980
2036.4	959727
2039.8	994474

2043.1	1030689
2046.4	1066905
2049.8	1104803
2053.1	1142701
2056.4	1182254
2059.7	1221807
2063.1	1263344
2066.4	1304880
2069.7	1348494
2073.06	1392108
2076.4	1437212
2079.7	1482317

Tailwater Data, Name - Current Operations  
Flow                      Elevation

500	0.32
1000	0.38
2000	0.51
3000	0.63
4000	0.75
5000	0.87
6000	1
7000	1.11
8000	1.23
9000	1.35
10000	1.47
11000	1.59
12000	1.7
13000	1.82
14000	1.93
15000	2.05
20000	2.61
25000	3.15
30000	3.67
35000	4.18
40000	4.66
45000	5.13
50000	5.58
55000	6
60000	6.42
65000	6.81
70000	7.18
75000	7.54
80000	7.87
85000	8.19
90000	8.49
95000	8.77
100000	9.03

Ramp\_Curve Data, Name - None  
Flow                      Elevation

Outlet1 Data, Name - None  
Elevation              Flow

Outlet2 Data, Name - Current Operations

Elevation	Flow
2027	0
2033	5250
2037	12500
2044	27750
2050	46000
2077	171300

Outlet3 Data, Name - Brownlee Gates

Elevation	Flow
1976	51500
1990	69000
2010	87500
2027	100500
2050	116000
2079	132500

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops Average

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - Proposed Ops Average

IDay	Data	OrInflow	Dependent
1	10500	False	False
152	10500	False	False
153	6500	True	False
293	6500	True	False
294	11500	False	False
345	11500	False	False
346	10500	False	False
365	10500	False	False

Target\_Elev Data, Name - Proposed Ops Average

IDay	Elevation	HardTarget
1	2076	0
7	2076	0
158	2069	0
189	2076	0
243	2069	0
252	2069	0
365	2076	0

Flood\_Elev Data, Name - H2077 all year

IDay	Elevation
------	-----------

1 2077  
365 2077

Min\_Elev Data, Name - H1976 all year  
IDay Elevation

1 1976  
365 1976

Level\_Fluct Data, Name - LF3 all yr  
IDay Weekday Weekend

			Hard	Spill
1	3	3	False	False
244	3	3	False	False
365	3	3	False	False

Level\_Rate Data, Name - None  
IDay Rate

Flashboard Data, Name - None  
Elevation Volume Trip Reset

Bypass Data, Name - None  
IDay Data OrInflow Destination

Ramp\_Rate Data, Name - None  
IDay UpRampDay UpRampHour DownRampDay DownRampHour Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 6, Name = Current Operations  
Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 34, Name = Current Operations  
Head Flow Eff

**IPC Proprietary Data**

Turbine Performance, ID = 47, Name = Unit 5 n  
Head Flow Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 5, Name = Unit 5 Current Ops  
gOutput            Eff                    Cap

**IPC Proprietary Data**

Generator Performance Data, ID = 6, Name = Units 1 - 4 Current Ops  
gOutput            Eff                    Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay                Unit

Min\_Unit Data, Name - None  
Head                Flow                    Eff                    CenterLine            Headloss  
GeneratorEff    OpStyle

Scenario Information for Oxbow

Physical Setting Conditions, Name - Current Operations

Res\_Storage Data, Name - CEQUAL RS Curve  
Elevation            Storage

1786.42	38536.44
1789.7	41746
1792.98	44954.86
1796.3	48465
1799.54	51975.63
1802.8	55731
1806.1	59487

Tailwater Data, Name - Current Operations  
Flow                Elevation

1	1490
---	------

Ramp\_Curve Data, Name - None  
Flow                Elevation

Outlet1 Data, Name - None  
Elevation            Flow

Outlet2 Data, Name - Current Operations  
Elevation            Flow

1755	0
1765	25000
1773	50000
1778	55000
1783	100000
1787	125000
1792	150000
1795	175000
1798	200000
1802	225000
1805	250000
1808	275000
1811	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1803

IDay	Elevation	HardTarget
1	1803	0
365	1803	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1805
365	1805

Min\_Elev Data, Name - H1795 all year

IDay	Elevation
1	1795
365	1795

Level\_Fluct Data, Name - LF5 all year

IDay	Weekday	Weekend	Hard	Spill
1	5	5	True	False
365	5	5	True	False



Level\_Rate Data, Name - None  
IDay            Rate

Flashboard Data, Name - None  
Elevation      Volume            Trip            Reset

Bypass Data, Name - Q100 all year  
IDay            Data            OrInflow        Destination  
1                100            False            3  
365              100            False            3

Ramp\_Rate Data, Name - None  
IDay            UpRampDay        UpRampHour      DownRampDay      DownRampHour      Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal      Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No        Head\_Loss\_ID    Generator\_Per    Turbine\_Perf\_    Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 8, Name = Current Operations  
Unit\_No        Unit\_HL        Common\_HL        Use\_Com2        Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 37, Name = Current Operations  
Head            Flow            Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 7, Name = Current Operations  
gOutput        Eff            Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay            Unit

Min\_Unit Data, Name - None  
Head            Flow            Eff            CenterLine        Headloss  
GeneratorEff    OpStyle

Scenario Information for Hells Canyon

Physical Setting Conditions, Name - PropOps\_HCDamCurve\_grid20ft

Res\_Storage Data, Name - CEQUAL RS Curve 20ft drawdown

Elevation            Storage

1666.7	135049
1668.3	138532
1669.9	142016
1673.2	148983
1674.9	152701
1676.5	156419
1679.8	163855
1683.1	171642
1686.4	179429
1689.6	187475
1692.9	195521

Tailwater Data, Name - Current Operations

Flow                Elevation

6000	1467.98
7000	1468.91
8000	1469.68
9000	1470.34
12000	1471.91
14000	1472.77
18000	1474.1
20000	1474.89
24000	1476.1
28000	1477.21
30000	1477.74
35000	1478.98
40000	1480.14
44000	1481.01
48000	1481.84
54000	1483.01
60000	1484.09
65000	1484.92
72500	1486.06
75000	1486.41
80000	1487.08
85000	1487.68
90000	1488.24
95000	1488.73
100000	1489.18
105000	1489.57

Ramp\_Curve Data, Name - HC Dam rating curve

Flow                Elevation

0	59
3950	62

4710	62.5
5531	63
6412	63.5
7352	64
9407	65
10520	65.5
11690	66
12920	66.5
14200	67
16940	68
19890	69
23050	70
26430	71
30020	72
33820	73
37830	74
42040	75
46450	76
51070	77
55880	78
60890	79
66100	80
71500	81
77100	82
82900	83
88890	84
95070	85
101400	86
108000	87

Outlet1 Data, Name - None  
Elevation      Flow

Outlet2 Data, Name - Current Operations  
Elevation      Flow

1600	0
1668	168000
1673	195000
1678	226000
1683	255000
1688	284000
1691	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	2	2

Operating Setting Conditions, Name - OP-1\_Scenariolc\_average

Minimum Data, Name - Proposed Ops Average

IDay	Data	OrInflow	Dependent
1	10500	False	False
152	10500	False	False
153	6500	True	False
293	6500	True	False
294	11500	False	False
345	11500	False	False
346	10500	False	False
365	10500	False	False

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1687

IDay	Elevation	HardTarget
1	1687	0
365	1687	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1688
365	1688

Min\_Elev Data, Name - 1668ft all year

IDay	Elevation
1	1668
365	1668

Level\_Fluct Data, Name - LF20 all year

IDay	Weekday	Weekend	Hard	Spill
1	20	20	False	False
365	20	20	False	False

Level\_Rate Data, Name - None

IDay	Rate
------	------

Flashboard Data, Name - None

Elevation	Volume	Trip	Reset
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Bypass Data, Name - None

IDay	Data	OrInflow	Destination
------	------	----------	-------------

Ramp\_Rate Data, Name - RR0.5ft all year

IDay	UpRampDay	UpRampHour	DownRampDay	DownRampHour	Type
1	10	0.5	10	0.5	Stage
False					

60	10	0.5	10	0.5	Stage
False					
151	10	0.5	10	0.5	Stage
False					
152	4	0.5	4	0.5	Stage
False					
273	4	0.5	4	0.5	Stage
False					
274	10	0.5	10	0.5	Stage
False					
365	10	0.5	10	0.5	Stage
False					

Withdrawal Data, Name - None  
 Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
 Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 11, Name = Current Operations  
 Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 40, Name = Current Operations  
 Head Flow Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 9, Name = Current Operations  
 gOutput Eff Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
 IDay Unit

Min\_Unit Data, Name - None  
 Head Flow Eff CenterLine Headloss  
 GeneratorEff OpStyle



Complete Scenario Data for Scenario—OP-1\_Scenario1c\_hi written out on 11/03/2004 9:47:13 AM

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Complete Scenario Data for Scenario - OP-1\_Scenariolc\_hi  
 Written out on 11/03/2004 9:47:13 AM

System Misc. Name - Proposed Ops High					
Load_Shape_ID	CarryOver	MaxPeak	ForecastDays	ForecastAcr	
Fall_Chinook_	Flood_Control	Max_Discharge			
8	False	False	3	1	16
4	0				

Load_Shape Data, Name - FP01 SP HL pricing			
IMonth	Period	Duration	Price
1	1	6	
1	2	0	
1	3	6	
1	4	5	
1	5	5	
1	6	0	
1	7	2	
1	8	7	
1	9	6	
1	10	4	
1	11	5	
1	12	2	
2	1	6	
2	2	0	
2	3	6	
2	4	5	
2	5	5	
2	6	0	
2	7	2	
2	8	7	
2	9	6	
2	10	4	
2	11	5	
2	12	2	
3	1	6	
3	2	0	
3	3	6	
3	4	5	
3	5	5	
3	6	0	
3	7	2	
3	8	7	
3	9	6	
3	10	4	
3	11	5	
3	12	2	
4	1	6	
4	2	0	
4	3	8	
4	4	0	
4	5	8	
4	6	0	
4	7	2	

4	8	7
4	9	8
4	10	0
4	11	7
4	12	2
5	1	6
5	2	0
5	3	8
5	4	0
5	5	8
5	6	0
5	7	2
5	8	7
5	9	8
5	10	0
5	11	7
5	12	2
6	1	6
6	2	0
6	3	8
6	4	0
6	5	8
6	6	0
6	7	2
6	8	7
6	9	8
6	10	0
6	11	7
6	12	2
7	1	6
7	2	0
7	3	16
7	4	0
7	5	0
7	6	0
7	7	2
7	8	8
7	9	14
7	10	0
7	11	0
7	12	2
8	1	6
8	2	0
8	3	16
8	4	0
8	5	0
8	6	0
8	7	2
8	8	8
8	9	14
8	10	0
8	11	0
8	12	2
9	1	6
9	2	0
9	3	16
9	4	0

9	5	0
9	6	0
9	7	2
9	8	8
9	9	14
9	10	0
9	11	0
9	12	2
10	1	6
10	2	0
10	3	6
10	4	4
10	5	6
10	6	0
10	7	2
10	8	7
10	9	6
10	10	4
10	11	5
10	12	2
11	1	6
11	2	0
11	3	6
11	4	4
11	5	6
11	6	0
11	7	2
11	8	7
11	9	6
11	10	4
11	11	5
11	12	2
12	1	6
12	2	0
12	3	6
12	4	4
12	5	6
12	6	0
12	7	2
12	8	7
12	9	6
12	10	4
12	11	5
12	12	2

Fall\_Chinook Data, Name - Proposed Ops High

Draw_Start	Refill_Start	Refill_End	Max_Discharge	Minimum_Max
Maximum_Max	Target_Elevat	Refill_Elevat	Allow_Peak	
252	294	345	13000	0
0	2076	False		0

Flood\_Control Data, Name - RC V2000

IDay	Dalles_Foreca	Brownlee_Fore	Req_Volume
59	75	3	0
59	75	4	200

59	75	5	300
59	75	6	400
59	85	3	150
59	85	4	300
59	85	5	350
59	85	6	400
59	95	3	200
59	95	4	300
59	95	5	350
59	95	6	400
59	105	3	300
59	105	4	400
59	105	5	400
59	105	6	400
59	115	3	300
59	115	4	400
59	115	5	500
59	115	6	500
90	75	3	0
90	75	4	100
90	75	5	200
90	75	6	350
90	85	3	100
90	85	4	300
90	85	5	400
90	85	6	450
90	95	3	150
90	95	4	300
90	95	5	400
90	95	6	500
90	105	3	200
90	105	4	425
90	105	5	475
90	105	6	500
90	115	3	250
90	115	4	450
90	115	5	600
90	115	6	750
105	75	3	0
105	75	4	50
105	75	5	150
105	75	6	250
105	85	3	50
105	85	4	250
105	85	5	400
105	85	6	500
105	95	3	100
105	95	4	300
105	95	5	425
105	95	6	550
105	105	3	150
105	105	4	450
105	105	5	525
105	105	6	600
105	115	3	200
105	115	4	500
105	115	5	650

105	115	6	850
120	75	3	0
120	75	4	0
120	75	5	50
120	75	6	150
120	85	3	0
120	85	4	250
120	85	5	400
120	85	6	500
120	95	3	50
120	95	4	300
120	95	5	450
120	95	6	600
120	105	3	100
120	105	4	450
120	105	5	550
120	105	6	700
120	115	3	150
120	115	4	550
120	115	5	750
120	115	6	980

Max\_Discharge Data, Name - None  
IDay Flow

Scenario Information for Brownlee

Physical Setting Conditions, Name - Current Ops 97b

Res\_Storage Data, Name - CEQUAL97b

Elevation	Storage
1973.2	432247
1979.8	475263
1983.2	498341
1986.5	521420
1989.8	546048
1993.1	570676
1996.5	596713
1999.8	622750
2003.1	650212
2006.5	677675
2009.8	706573
2013.1	735471
2016.5	765566
2019.8	795660
2023.1	827202
2029.8	891862
2033.1	924980
2036.4	959727
2039.8	994474

2043.1	1030689
2046.4	1066905
2049.8	1104803
2053.1	1142701
2056.4	1182254
2059.7	1221807
2063.1	1263344
2066.4	1304880
2069.7	1348494
2073.06	1392108
2076.4	1437212
2079.7	1482317

Tailwater Data, Name - Current Operations  
Flow                      Elevation

500	0.32
1000	0.38
2000	0.51
3000	0.63
4000	0.75
5000	0.87
6000	1
7000	1.11
8000	1.23
9000	1.35
10000	1.47
11000	1.59
12000	1.7
13000	1.82
14000	1.93
15000	2.05
20000	2.61
25000	3.15
30000	3.67
35000	4.18
40000	4.66
45000	5.13
50000	5.58
55000	6
60000	6.42
65000	6.81
70000	7.18
75000	7.54
80000	7.87
85000	8.19
90000	8.49
95000	8.77
100000	9.03

Ramp\_Curve Data, Name - None  
Flow                      Elevation

Outlet1 Data, Name - None  
Elevation                  Flow

Outlet2 Data, Name - Current Operations

Elevation	Flow
2027	0
2033	5250
2037	12500
2044	27750
2050	46000
2077	171300

Outlet3 Data, Name - Brownlee Gates

Elevation	Flow
1976	51500
1990	69000
2010	87500
2027	100500
2050	116000
2079	132500

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops High

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - Proposed Ops High

IDay	Data	OrInflow	Dependent
1	12000	False	False
152	12000	False	False
153	6500	True	False
293	6500	True	False
294	13000	False	False
345	13000	False	False
346	12000	False	False
365	12000	False	False

Target\_Elev Data, Name - Proposed Ops High

IDay	Elevation	HardTarget
1	2076	0
7	2076	0
189	2076	0
243	2059	0
252	2059	0
253	2076	0
365	2076	0

Flood\_Elev Data, Name - H2077 all year

IDay	Elevation
------	-----------

1 2077  
365 2077

Min\_Elev Data, Name - H1976 all year  
IDay Elevation

1 1976  
365 1976

Level\_Fluct Data, Name - LF3 all yr  
IDay Weekday Weekend

	Weekday	Weekend	Hard	Spill
1	3	3	False	False
244	3	3	False	False
365	3	3	False	False

Level\_Rate Data, Name - None  
IDay Rate

Flashboard Data, Name - None  
Elevation Volume Trip Reset

Bypass Data, Name - None  
IDay Data OrInflow Destination

Ramp\_Rate Data, Name - None  
IDay UpRampDay UpRampHour DownRampDay DownRampHour Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 6, Name = Current Operations  
Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 34, Name = Current Operations  
Head Flow Eff

**IPC Proprietary Data**

Turbine Performance, ID = 47, Name = Unit 5 n  
Head Flow Eff



**IPC Proprietary Data**

Generator Performance Data, ID = 5, Name = Unit 5 Current Ops  
gOutput            Eff                    Cap

**IPC Proprietary Data**

Generator Performance Data, ID = 6, Name = Units 1 - 4 Current Ops  
gOutput            Eff                    Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay                Unit

Min\_Unit Data, Name - None  
Head                Flow                    Eff                    CenterLine            Headloss  
GeneratorEff    OpStyle

Scenario Information for Oxbow

Physical Setting Conditions, Name - Current Operations

Res\_Storage Data, Name - CEQUAL RS Curve

Elevation	Storage
1786.42	38536.44
1789.7	41746
1792.98	44954.86
1796.3	48465
1799.54	51975.63
1802.8	55731
1806.1	59487

Tailwater Data, Name - Current Operations

Flow	Elevation
1	1490

Ramp\_Curve Data, Name - None

Flow	Elevation
------	-----------

Outlet1 Data, Name - None

Elevation	Flow
-----------	------

Outlet2 Data, Name - Current Operations

Elevation	Flow
-----------	------

1755	0
1765	25000
1773	50000
1778	55000
1783	100000
1787	125000
1792	150000
1795	175000
1798	200000
1802	225000
1805	250000
1808	275000
1811	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1803

IDay	Elevation	HardTarget
1	1803	0
365	1803	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1805
365	1805

Min\_Elev Data, Name - H1795 all year

IDay	Elevation
1	1795
365	1795

Level\_Fluct Data, Name - LF5 all year

IDay	Weekday	Weekend	Hard	Spill
1	5	5	True	False
365	5	5	True	False

Level\_Rate Data, Name - None  
IDay            Rate

Flashboard Data, Name - None  
Elevation      Volume            Trip            Reset

Bypass Data, Name - Q100 all year  
IDay            Data            OrInflow        Destination

1	100	False	3
365	100	False	3

Ramp\_Rate Data, Name - None  
IDay            UpRampDay        UpRampHour      DownRampDay      DownRampHour      Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal      Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No        Head\_Loss\_ID    Generator\_Per    Turbine\_Perf\_    Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 8, Name = Current Operations  
Unit\_No        Unit\_HL        Common\_HL        Use\_Com2        Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 37, Name = Current Operations  
Head            Flow            Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 7, Name = Current Operations  
gOutput        Eff            Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay            Unit

Min\_Unit Data, Name - None  
Head            Flow            Eff            CenterLine        Headloss  
GeneratorEff    OpStyle

Scenario Information for Hells Canyon

Physical Setting Conditions, Name - PropOps\_HCDamCurve\_grid20ft

Res\_Storage Data, Name - CEQUAL RS Curve 20ft drawdown

Elevation            Storage

1666.7	135049
1668.3	138532
1669.9	142016
1673.2	148983
1674.9	152701
1676.5	156419
1679.8	163855
1683.1	171642
1686.4	179429
1689.6	187475
1692.9	195521

Tailwater Data, Name - Current Operations

Flow                    Elevation

6000	1467.98
7000	1468.91
8000	1469.68
9000	1470.34
12000	1471.91
14000	1472.77
18000	1474.1
20000	1474.89
24000	1476.1
28000	1477.21
30000	1477.74
35000	1478.98
40000	1480.14
44000	1481.01
48000	1481.84
54000	1483.01
60000	1484.09
65000	1484.92
72500	1486.06
75000	1486.41
80000	1487.08
85000	1487.68
90000	1488.24
95000	1488.73
100000	1489.18
105000	1489.57

Ramp\_Curve Data, Name - HC Dam rating curve

Flow                    Elevation

0	59
3950	62

4710	62.5
5531	63
6412	63.5
7352	64
9407	65
10520	65.5
11690	66
12920	66.5
14200	67
16940	68
19890	69
23050	70
26430	71
30020	72
33820	73
37830	74
42040	75
46450	76
51070	77
55880	78
60890	79
66100	80
71500	81
77100	82
82900	83
88890	84
95070	85
101400	86
108000	87

Outlet1 Data, Name - None  
Elevation      Flow

Outlet2 Data, Name - Current Operations  
Elevation      Flow

1600	0
1668	168000
1673	195000
1678	226000
1683	255000
1688	284000
1691	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant_Options Data, Name - Current Operations				
Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	2	2

Operating Setting Conditions, Name - OP-1\_Scenariolc\_hi

Minimum Data, Name - Proposed Ops High

IDay	Data	OrInflow	Dependent
1	12000	False	False
152	12000	False	False
153	6500	True	False
293	6500	True	False
294	13000	False	False
345	13000	False	False
346	12000	False	False
365	12000	False	False

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1687

IDay	Elevation	HardTarget
1	1687	0
365	1687	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1688
365	1688

Min\_Elev Data, Name - 1668ft all year

IDay	Elevation
1	1668
365	1668

Level\_Fluct Data, Name - LF20 all year

IDay	Weekday	Weekend	Hard	Spill
1	20	20	False	False
365	20	20	False	False

Level\_Rate Data, Name - None

IDay	Rate
------	------

Flashboard Data, Name - None

Elevation	Volume	Trip	Reset
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Bypass Data, Name - None

IDay	Data	OrInflow	Destination
------	------	----------	-------------

Ramp\_Rate Data, Name - RR0.5ft all year

IDay	UpRampDay	UpRampHour	DownRampDay	DownRampHour	Type
1	10	0.5	10	0.5	Stage
False					

60	10	0.5	10	0.5	Stage
False					
151	10	0.5	10	0.5	Stage
False					
152	4	0.5	4	0.5	Stage
False					
273	4	0.5	4	0.5	Stage
False					
274	10	0.5	10	0.5	Stage
False					
365	10	0.5	10	0.5	Stage
False					

Withdrawal Data, Name - None  
 Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
 Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 11, Name = Current Operations  
 Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 40, Name = Current Operations  
 Head Flow Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 9, Name = Current Operations  
 gOutput Eff Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
 IDay Unit

Min\_Unit Data, Name - None  
 Head Flow Eff CenterLine Headloss  
 GeneratorEff OpStyle





Complete Scenario Data for Scenario—OP-1\_Scenario1c\_lo written out on 11/03/2004 9:48:37 AM

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Complete Scenario Data for Scenario - OP-1\_Scenariolc\_lo  
 Written out on 11/03/2004 9:48:37 AM

System Misc. Name - Proposed	Ops Low	ForecastDays	ForecastAcr
Load_Shape_ID CarryOver	MaxPeak		
Fall_Chinook_ Flood_Control	Max_Discharge		
8	False	3	1
4	0		14

Load_Shape Data, Name - FP01	SP HL pricing
IMonth	Period Duration Price
1	1 6
1	2 0
1	3 6
1	4 5
1	5 5
1	6 0
1	7 2
1	8 7
1	9 6
1	10 4
1	11 5
1	12 2
2	1 6
2	2 0
2	3 6
2	4 5
2	5 5
2	6 0
2	7 2
2	8 7
2	9 6
2	10 4
2	11 5
2	12 2
3	1 6
3	2 0
3	3 6
3	4 5
3	5 5
3	6 0
3	7 2
3	8 7
3	9 6
3	10 4
3	11 5
3	12 2
4	1 6
4	2 0
4	3 8
4	4 0
4	5 8
4	6 0
4	7 2

4	8	7
4	9	8
4	10	0
4	11	7
4	12	2
5	1	6
5	2	0
5	3	8
5	4	0
5	5	8
5	6	0
5	7	2
5	8	7
5	9	8
5	10	0
5	11	7
5	12	2
6	1	6
6	2	0
6	3	8
6	4	0
6	5	8
6	6	0
6	7	2
6	8	7
6	9	8
6	10	0
6	11	7
6	12	2
7	1	6
7	2	0
7	3	16
7	4	0
7	5	0
7	6	0
7	7	2
7	8	8
7	9	14
7	10	0
7	11	0
7	12	2
8	1	6
8	2	0
8	3	16
8	4	0
8	5	0
8	6	0
8	7	2
8	8	8
8	9	14
8	10	0
8	11	0
8	12	2
9	1	6
9	2	0
9	3	16
9	4	0

9	5	0
9	6	0
9	7	2
9	8	8
9	9	14
9	10	0
9	11	0
9	12	2
10	1	6
10	2	0
10	3	6
10	4	4
10	5	6
10	6	0
10	7	2
10	8	7
10	9	6
10	10	4
10	11	5
10	12	2
11	1	6
11	2	0
11	3	6
11	4	4
11	5	6
11	6	0
11	7	2
11	8	7
11	9	6
11	10	4
11	11	5
11	12	2
12	1	6
12	2	0
12	3	6
12	4	4
12	5	6
12	6	0
12	7	2
12	8	7
12	9	6
12	10	4
12	11	5
12	12	2

Fall\_Chinook Data, Name - Proposed Ops Low

Draw_Start	Refill_Start	Refill_End	Max_Discharge	Minimum_Max
Maximum_Max	Target_Elevat	Refill_Elevat	Allow_Peak	
252	294	345	9000	0
0	2076	False		0

Flood\_Control Data, Name - RC V2000

IDay	Dalles_Foreca	Brownlee_Fore	Req_Volume
59	75	3	0
59	75	4	200

59	75	5	300
59	75	6	400
59	85	3	150
59	85	4	300
59	85	5	350
59	85	6	400
59	95	3	200
59	95	4	300
59	95	5	350
59	95	6	400
59	105	3	300
59	105	4	400
59	105	5	400
59	105	6	400
59	115	3	300
59	115	4	400
59	115	5	500
59	115	6	500
90	75	3	0
90	75	4	100
90	75	5	200
90	75	6	350
90	85	3	100
90	85	4	300
90	85	5	400
90	85	6	450
90	95	3	150
90	95	4	300
90	95	5	400
90	95	6	500
90	105	3	200
90	105	4	425
90	105	5	475
90	105	6	500
90	115	3	250
90	115	4	450
90	115	5	600
90	115	6	750
105	75	3	0
105	75	4	50
105	75	5	150
105	75	6	250
105	85	3	50
105	85	4	250
105	85	5	400
105	85	6	500
105	95	3	100
105	95	4	300
105	95	5	425
105	95	6	550
105	105	3	150
105	105	4	450
105	105	5	525
105	105	6	600
105	115	3	200
105	115	4	500
105	115	5	650

105	115	6	850
120	75	3	0
120	75	4	0
120	75	5	50
120	75	6	150
120	85	3	0
120	85	4	250
120	85	5	400
120	85	6	500
120	95	3	50
120	95	4	300
120	95	5	450
120	95	6	600
120	105	3	100
120	105	4	450
120	105	5	550
120	105	6	700
120	115	3	150
120	115	4	550
120	115	5	750
120	115	6	980

Max\_Discharge Data, Name - None  
IDay Flow

Scenario Information for Brownlee

Physical Setting Conditions, Name - Current Ops 97b

Res\_Storage Data, Name - CEQUAL97b

Elevation	Storage
1973.2	432247
1979.8	475263
1983.2	498341
1986.5	521420
1989.8	546048
1993.1	570676
1996.5	596713
1999.8	622750
2003.1	650212
2006.5	677675
2009.8	706573
2013.1	735471
2016.5	765566
2019.8	795660
2023.1	827202
2029.8	891862
2033.1	924980
2036.4	959727
2039.8	994474

2043.1	1030689
2046.4	1066905
2049.8	1104803
2053.1	1142701
2056.4	1182254
2059.7	1221807
2063.1	1263344
2066.4	1304880
2069.7	1348494
2073.06	1392108
2076.4	1437212
2079.7	1482317

Tailwater Data, Name - Current Operations  
Flow                      Elevation

500	0.32
1000	0.38
2000	0.51
3000	0.63
4000	0.75
5000	0.87
6000	1
7000	1.11
8000	1.23
9000	1.35
10000	1.47
11000	1.59
12000	1.7
13000	1.82
14000	1.93
15000	2.05
20000	2.61
25000	3.15
30000	3.67
35000	4.18
40000	4.66
45000	5.13
50000	5.58
55000	6
60000	6.42
65000	6.81
70000	7.18
75000	7.54
80000	7.87
85000	8.19
90000	8.49
95000	8.77
100000	9.03

Ramp\_Curve Data, Name - None  
Flow                      Elevation

Outlet1 Data, Name - None  
Elevation              Flow



Outlet2 Data, Name - Current Operations

Elevation	Flow
2027	0
2033	5250
2037	12500
2044	27750
2050	46000
2077	171300

Outlet3 Data, Name - Brownlee Gates

Elevation	Flow
1976	51500
1990	69000
2010	87500
2027	100500
2050	116000
2079	132500

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops Low

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - Proposed Ops Low

IDay	Data	OrInflow	Dependent
1	8500	False	False
152	8500	False	False
153	6500	True	False
293	6500	True	False
294	9000	False	False
345	9000	False	False
346	8500	False	False
365	8500	False	False

Target\_Elev Data, Name - Proposed Ops Low

IDay	Elevation	HardTarget
1	2076	0
7	2076	0
121	2076	0
189	2076	0
243	2072	0
252	2072	0
365	2076	0

Flood\_Elev Data, Name - H2077 all year

IDay	Elevation
------	-----------

1 2077  
365 2077

Min\_Elev Data, Name - H1976 all year  
IDay Elevation

1 1976  
365 1976

Level\_Fluct Data, Name - LF3 all yr  
IDay Weekday Weekend

	Weekday	Weekend	Hard	Spill
1	3	3	False	False
244	3	3	False	False
365	3	3	False	False

Level\_Rate Data, Name - None  
IDay Rate

Flashboard Data, Name - None  
Elevation Volume Trip Reset

Bypass Data, Name - None  
IDay Data OrInflow Destination

Ramp\_Rate Data, Name - None  
IDay UpRampDay UpRampHour DownRampDay DownRampHour Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 6, Name = Current Operations  
Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 34, Name = Current Operations  
Head Flow Eff

**IPC Proprietary Data**

Turbine Performance, ID = 47, Name = Unit 5 n  
Head Flow Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 5, Name = Unit 5 Current Ops  
gOutput            Eff                    Cap

**IPC Proprietary Data**

Generator Performance Data, ID = 6, Name = Units 1 - 4 Current Ops  
gOutput            Eff                    Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay                Unit

Min\_Unit Data, Name - None  
Head                Flow                    Eff                    CenterLine            Headloss  
GeneratorEff    OpStyle

Scenario Information for Oxbow

Physical Setting Conditions, Name - Current Operations

Res\_Storage Data, Name - CEQUAL RS Curve  
Elevation            Storage

1786.42	38536.44
1789.7	41746
1792.98	44954.86
1796.3	48465
1799.54	51975.63
1802.8	55731
1806.1	59487

Tailwater Data, Name - Current Operations  
Flow                Elevation

1	1490
---	------

Ramp\_Curve Data, Name - None  
Flow                Elevation

Outlet1 Data, Name - None  
Elevation            Flow

Outlet2 Data, Name - Current Operations  
Elevation            Flow

1755	0
1765	25000
1773	50000
1778	55000
1783	100000
1787	125000
1792	150000
1795	175000
1798	200000
1802	225000
1805	250000
1808	275000
1811	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1803

IDay	Elevation	HardTarget
1	1803	0
365	1803	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1805
365	1805

Min\_Elev Data, Name - H1795 all year

IDay	Elevation
1	1795
365	1795

Level\_Fluct Data, Name - LF5 all year

IDay	Weekday	Weekend	Hard	Spill
1	5	5	True	False
365	5	5	True	False

Level\_Rate Data, Name - None  
IDay            Rate

Flashboard Data, Name - None  
Elevation      Volume            Trip            Reset

Bypass Data, Name - Q100 all year  
IDay            Data            OrInflow        Destination

1	100	False	3
365	100	False	3

Ramp\_Rate Data, Name - None  
IDay            UpRampDay        UpRampHour      DownRampDay      DownRampHour      Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal      Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No        Head\_Loss\_ID    Generator\_Per    Turbine\_Perf\_    Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 8, Name = Current Operations  
Unit\_No        Unit\_HL        Common\_HL        Use\_Com2        Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 37, Name = Current Operations  
Head            Flow            Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 7, Name = Current Operations  
gOutput        Eff            Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay            Unit

Min\_Unit Data, Name - None  
Head            Flow            Eff            CenterLine        Headloss  
GeneratorEff    OpStyle

Scenario Information for Hells Canyon

Physical Setting Conditions, Name - PropOps\_HCDamCurve\_grid20ft

Res\_Storage Data, Name - CEQUAL RS Curve 20ft drawdown

Elevation            Storage

1666.7	135049
1668.3	138532
1669.9	142016
1673.2	148983
1674.9	152701
1676.5	156419
1679.8	163855
1683.1	171642
1686.4	179429
1689.6	187475
1692.9	195521

Tailwater Data, Name - Current Operations

Flow                Elevation

6000	1467.98
7000	1468.91
8000	1469.68
9000	1470.34
12000	1471.91
14000	1472.77
18000	1474.1
20000	1474.89
24000	1476.1
28000	1477.21
30000	1477.74
35000	1478.98
40000	1480.14
44000	1481.01
48000	1481.84
54000	1483.01
60000	1484.09
65000	1484.92
72500	1486.06
75000	1486.41
80000	1487.08
85000	1487.68
90000	1488.24
95000	1488.73
100000	1489.18
105000	1489.57

Ramp\_Curve Data, Name - HC Dam rating curve

Flow                Elevation

0	59
3950	62

4710	62.5
5531	63
6412	63.5
7352	64
9407	65
10520	65.5
11690	66
12920	66.5
14200	67
16940	68
19890	69
23050	70
26430	71
30020	72
33820	73
37830	74
42040	75
46450	76
51070	77
55880	78
60890	79
66100	80
71500	81
77100	82
82900	83
88890	84
95070	85
101400	86
108000	87

Outlet1 Data, Name - None  
Elevation      Flow

Outlet2 Data, Name - Current Operations  
Elevation      Flow

1600	0
1668	168000
1673	195000
1678	226000
1683	255000
1688	284000
1691	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant_Options Data, Name - Current Operations				
Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	2	2

Operating Setting Conditions, Name - OP-1\_Scenariolc\_lo

Minimum Data, Name - Proposed Ops low

IDay	Data	OrInflow	Dependent
1	8500	False	False
152	8500	False	False
153	6500	True	False
293	6500	True	False
294	9000	False	False
345	9000	False	False
346	8500	False	False
365	8500	False	False

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1687

IDay	Elevation	HardTarget
1	1687	0
365	1687	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1688
365	1688

Min\_Elev Data, Name - 1668ft all year

IDay	Elevation
1	1668
365	1668

Level\_Fluct Data, Name - LF20 all year

IDay	Weekday	Weekend	Hard	Spill
1	20	20	False	False
365	20	20	False	False

Level\_Rate Data, Name - None

IDay	Rate
------	------

Flashboard Data, Name - None

Elevation	Volume	Trip	Reset
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Bypass Data, Name - None

IDay	Data	OrInflow	Destination
------	------	----------	-------------

Ramp\_Rate Data, Name - RR0.5ft all year

IDay	UpRampDay	UpRampHour	DownRampDay	DownRampHour	Type
1	10	0.5	10	0.5	Stage
False					



60	10	0.5	10	0.5	Stage
False					
151	10	0.5	10	0.5	Stage
False					
152	4	0.5	4	0.5	Stage
False					
273	4	0.5	4	0.5	Stage
False					
274	10	0.5	10	0.5	Stage
False					
365	10	0.5	10	0.5	Stage
False					

Withdrawal Data, Name - None  
 Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
 Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 11, Name = Current Operations  
 Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 40, Name = Current Operations  
 Head Flow Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 9, Name = Current Operations  
 gOutput Eff Cap

1	1	500
500	1	500

Maintenance Data, Name - None  
 IDay Unit

Min\_Unit Data, Name - None  
 Head Flow Eff CenterLine Headloss  
 GeneratorEff OpStyle



Complete Scenario Data for Scenario—OP-1\_Scenario1d\_average written out on 11/03/2004 9:48:55 AM

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Complete Scenario Data for Scenario - OP-1\_Scenariold\_average  
 Written out on 11/03/2004 9:48:55 AM

System Misc. Name - Proposed	Ops Average	ForecastDays	ForecastAcr
Load_Shape_ID CarryOver	MaxPeak		
Fall_Chinook_ Flood_Control	Max_Discharge		
8	False	3	1
4	0		15

Load_Shape Data, Name - FP01	SP HL pricing	Price
IMonth	Period	Duration
1	1	6
1	2	0
1	3	6
1	4	5
1	5	5
1	6	0
1	7	2
1	8	7
1	9	6
1	10	4
1	11	5
1	12	2
2	1	6
2	2	0
2	3	6
2	4	5
2	5	5
2	6	0
2	7	2
2	8	7
2	9	6
2	10	4
2	11	5
2	12	2
3	1	6
3	2	0
3	3	6
3	4	5
3	5	5
3	6	0
3	7	2
3	8	7
3	9	6
3	10	4
3	11	5
3	12	2
4	1	6
4	2	0
4	3	8
4	4	0
4	5	8
4	6	0
4	7	2

4	8	7
4	9	8
4	10	0
4	11	7
4	12	2
5	1	6
5	2	0
5	3	8
5	4	0
5	5	8
5	6	0
5	7	2
5	8	7
5	9	8
5	10	0
5	11	7
5	12	2
6	1	6
6	2	0
6	3	8
6	4	0
6	5	8
6	6	0
6	7	2
6	8	7
6	9	8
6	10	0
6	11	7
6	12	2
7	1	6
7	2	0
7	3	16
7	4	0
7	5	0
7	6	0
7	7	2
7	8	8
7	9	14
7	10	0
7	11	0
7	12	2
8	1	6
8	2	0
8	3	16
8	4	0
8	5	0
8	6	0
8	7	2
8	8	8
8	9	14
8	10	0
8	11	0
8	12	2
9	1	6
9	2	0
9	3	16
9	4	0

9	5	0
9	6	0
9	7	2
9	8	8
9	9	14
9	10	0
9	11	0
9	12	2
10	1	6
10	2	0
10	3	6
10	4	4
10	5	6
10	6	0
10	7	2
10	8	7
10	9	6
10	10	4
10	11	5
10	12	2
11	1	6
11	2	0
11	3	6
11	4	4
11	5	6
11	6	0
11	7	2
11	8	7
11	9	6
11	10	4
11	11	5
11	12	2
12	1	6
12	2	0
12	3	6
12	4	4
12	5	6
12	6	0
12	7	2
12	8	7
12	9	6
12	10	4
12	11	5
12	12	2

Fall\_Chinook Data, Name - Proposed Ops Average

Draw_Start	Refill_Start	Refill_End	Max_Discharge	Minimum_Max
Maximum_Max	Target_Elevat	Refill_Elevat	Allow_Peak	
252	294	345	11500	0
0	2076	False		0

Flood\_Control Data, Name - RC V2000

IDay	Dalles_Foreca	Brownlee_Fore	Req_Volume
59	75	3	0
59	75	4	200

59	75	5	300
59	75	6	400
59	85	3	150
59	85	4	300
59	85	5	350
59	85	6	400
59	95	3	200
59	95	4	300
59	95	5	350
59	95	6	400
59	105	3	300
59	105	4	400
59	105	5	400
59	105	6	400
59	115	3	300
59	115	4	400
59	115	5	500
59	115	6	500
90	75	3	0
90	75	4	100
90	75	5	200
90	75	6	350
90	85	3	100
90	85	4	300
90	85	5	400
90	85	6	450
90	95	3	150
90	95	4	300
90	95	5	400
90	95	6	500
90	105	3	200
90	105	4	425
90	105	5	475
90	105	6	500
90	115	3	250
90	115	4	450
90	115	5	600
90	115	6	750
105	75	3	0
105	75	4	50
105	75	5	150
105	75	6	250
105	85	3	50
105	85	4	250
105	85	5	400
105	85	6	500
105	95	3	100
105	95	4	300
105	95	5	425
105	95	6	550
105	105	3	150
105	105	4	450
105	105	5	525
105	105	6	600
105	115	3	200
105	115	4	500
105	115	5	650



105	115	6	850
120	75	3	0
120	75	4	0
120	75	5	50
120	75	6	150
120	85	3	0
120	85	4	250
120	85	5	400
120	85	6	500
120	95	3	50
120	95	4	300
120	95	5	450
120	95	6	600
120	105	3	100
120	105	4	450
120	105	5	550
120	105	6	700
120	115	3	150
120	115	4	550
120	115	5	750
120	115	6	980

Max\_Discharge Data, Name - None  
IDay Flow

Scenario Information for Brownlee

Physical Setting Conditions, Name - Current Ops 97b

Res\_Storage Data, Name - CEQUAL97b

Elevation	Storage
1973.2	432247
1979.8	475263
1983.2	498341
1986.5	521420
1989.8	546048
1993.1	570676
1996.5	596713
1999.8	622750
2003.1	650212
2006.5	677675
2009.8	706573
2013.1	735471
2016.5	765566
2019.8	795660
2023.1	827202
2029.8	891862
2033.1	924980
2036.4	959727
2039.8	994474

2043.1	1030689
2046.4	1066905
2049.8	1104803
2053.1	1142701
2056.4	1182254
2059.7	1221807
2063.1	1263344
2066.4	1304880
2069.7	1348494
2073.06	1392108
2076.4	1437212
2079.7	1482317

Tailwater Data, Name - Current Operations  
Flow                      Elevation

500	0.32
1000	0.38
2000	0.51
3000	0.63
4000	0.75
5000	0.87
6000	1
7000	1.11
8000	1.23
9000	1.35
10000	1.47
11000	1.59
12000	1.7
13000	1.82
14000	1.93
15000	2.05
20000	2.61
25000	3.15
30000	3.67
35000	4.18
40000	4.66
45000	5.13
50000	5.58
55000	6
60000	6.42
65000	6.81
70000	7.18
75000	7.54
80000	7.87
85000	8.19
90000	8.49
95000	8.77
100000	9.03

Ramp\_Curve Data, Name - None  
Flow                      Elevation

Outlet1 Data, Name - None  
Elevation              Flow

Outlet2 Data, Name - Current Operations

Elevation	Flow
2027	0
2033	5250
2037	12500
2044	27750
2050	46000
2077	171300

Outlet3 Data, Name - Brownlee Gates

Elevation	Flow
1976	51500
1990	69000
2010	87500
2027	100500
2050	116000
2079	132500

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops Average

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - Proposed Ops Average

IDay	Data	OrInflow	Dependent
1	10500	False	False
152	10500	False	False
153	6500	True	False
293	6500	True	False
294	11500	False	False
345	11500	False	False
346	10500	False	False
365	10500	False	False

Target\_Elev Data, Name - Proposed Ops Average

IDay	Elevation	HardTarget
1	2076	0
7	2076	0
158	2069	0
189	2076	0
243	2069	0
252	2069	0
365	2076	0

Flood\_Elev Data, Name - H2077 all year

IDay	Elevation
------	-----------

1 2077  
365 2077

Min\_Elev Data, Name - H1976 all year  
IDay Elevation

1 1976  
365 1976

Level\_Fluct Data, Name - LF3 all yr  
IDay Weekday Weekend

			Hard	Spill
1	3	3	False	False
244	3	3	False	False
365	3	3	False	False

Level\_Rate Data, Name - None  
IDay Rate

Flashboard Data, Name - None  
Elevation Volume Trip Reset

Bypass Data, Name - None  
IDay Data OrInflow Destination

Ramp\_Rate Data, Name - None  
IDay UpRampDay UpRampHour DownRampDay DownRampHour Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 6, Name = Current Operations  
Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 34, Name = Current Operations  
Head Flow Eff

**IPC Proprietary Data**

Turbine Performance, ID = 47, Name = Unit 5 n  
Head Flow Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 5, Name = Unit 5 Current Ops  
gOutput            Eff                    Cap

**IPC Proprietary Data**

Generator Performance Data, ID = 6, Name = Units 1 - 4 Current Ops  
gOutput            Eff                    Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay                Unit

Min\_Unit Data, Name - None  
Head                Flow                    Eff                    CenterLine            Headloss  
GeneratorEff    OpStyle

Scenario Information for Oxbow

Physical Setting Conditions, Name - Current Operations

Res\_Storage Data, Name - CEQUAL RS Curve

Elevation	Storage
1786.42	38536.44
1789.7	41746
1792.98	44954.86
1796.3	48465
1799.54	51975.63
1802.8	55731
1806.1	59487

Tailwater Data, Name - Current Operations

Flow	Elevation
1	1490

Ramp\_Curve Data, Name - None

Flow	Elevation
------	-----------

Outlet1 Data, Name - None

Elevation	Flow
-----------	------

Outlet2 Data, Name - Current Operations

Elevation	Flow
-----------	------

1755	0
1765	25000
1773	50000
1778	55000
1783	100000
1787	125000
1792	150000
1795	175000
1798	200000
1802	225000
1805	250000
1808	275000
1811	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1803

IDay	Elevation	HardTarget
1	1803	0
365	1803	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1805
365	1805

Min\_Elev Data, Name - H1795 all year

IDay	Elevation
1	1795
365	1795

Level\_Fluct Data, Name - LF5 all year

IDay	Weekday	Weekend	Hard	Spill
1	5	5	True	False
365	5	5	True	False

Level\_Rate Data, Name - None  
IDay            Rate

Flashboard Data, Name - None  
Elevation      Volume            Trip            Reset

Bypass Data, Name - Q100 all year  
IDay            Data            OrInflow        Destination

1	100	False	3
365	100	False	3

Ramp\_Rate Data, Name - None  
IDay            UpRampDay        UpRampHour      DownRampDay      DownRampHour      Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal      Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No          Head\_Loss\_ID      Generator\_Per      Turbine\_Perf\_      Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 8, Name = Current Operations  
Unit\_No          Unit\_HL            Common\_HL        Use\_Com2            Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 37, Name = Current Operations  
Head            Flow            Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 7, Name = Current Operations  
gOutput          Eff            Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay            Unit

Min\_Unit Data, Name - None  
Head            Flow            Eff            CenterLine        Headloss  
GeneratorEff    OpStyle

Scenario Information for Hells Canyon

Physical Setting Conditions, Name - PropOps\_HCDamCurve\_grid20ft

Res\_Storage Data, Name - CEQUAL RS Curve 20ft drawdown

Elevation            Storage

1666.7	135049
1668.3	138532
1669.9	142016
1673.2	148983
1674.9	152701
1676.5	156419
1679.8	163855
1683.1	171642
1686.4	179429
1689.6	187475
1692.9	195521

Tailwater Data, Name - Current Operations

Flow                Elevation

6000	1467.98
7000	1468.91
8000	1469.68
9000	1470.34
12000	1471.91
14000	1472.77
18000	1474.1
20000	1474.89
24000	1476.1
28000	1477.21
30000	1477.74
35000	1478.98
40000	1480.14
44000	1481.01
48000	1481.84
54000	1483.01
60000	1484.09
65000	1484.92
72500	1486.06
75000	1486.41
80000	1487.08
85000	1487.68
90000	1488.24
95000	1488.73
100000	1489.18
105000	1489.57

Ramp\_Curve Data, Name - HC Dam rating curve

Flow                Elevation

0	59
3950	62



4710	62.5
5531	63
6412	63.5
7352	64
9407	65
10520	65.5
11690	66
12920	66.5
14200	67
16940	68
19890	69
23050	70
26430	71
30020	72
33820	73
37830	74
42040	75
46450	76
51070	77
55880	78
60890	79
66100	80
71500	81
77100	82
82900	83
88890	84
95070	85
101400	86
108000	87

Outlet1 Data, Name - None  
Elevation      Flow

Outlet2 Data, Name - Current Operations  
Elevation      Flow

1600	0
1668	168000
1673	195000
1678	226000
1683	255000
1688	284000
1691	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant_Options Data, Name - Current Operations				
Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	2	2

Operating Setting Conditions, Name - PropOps\_ave\_RR2inMarMay

Minimum Data, Name - Proposed Ops Average

IDay	Data	OrInflow	Dependent
1	10500	False	False
152	10500	False	False
153	6500	True	False
293	6500	True	False
294	11500	False	False
345	11500	False	False
346	10500	False	False
365	10500	False	False

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1687

IDay	Elevation	HardTarget
1	1687	0
365	1687	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1688
365	1688

Min\_Elev Data, Name - OP-1\_Scenariold\_2

IDay	Elevation
1	1683
59	1683
60	1668
151	1668
152	1683
365	1683

Level\_Fluct Data, Name - OP-1\_Scenariold\_le\_2

IDay	Weekday	Weekend	Hard	Spill
1	5	5	False	False
59	5	5	False	False
60	20	20	False	False
150	20	20	False	False
152	5	5	False	False
365	5	5	False	False

Level\_Rate Data, Name - None

IDay	Rate
------	------

Flashboard Data, Name - None

Elevation	Volume	Trip	Reset
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Bypass Data, Name - None

IDay	Data	OrInflow	Destination
------	------	----------	-------------

Ramp\_Rate Data, Name - RR0.167MarchMay

IDay	UpRampDay	UpRampHour	DownRampDay	DownRampHour	Type
Peak_Inside					
1	10	1	10	1	Stage
False					
60	10	0.167	10	0.167	Stage
False					
151	10	0.167	10	0.167	Stage
False					
152	4	1	4	1	Stage
False					
273	4	1	4	1	Stage
False					
274	10	1	10	1	Stage
False					
365	10	1	10	1	Stage
False					

Withdrawal Data, Name - None

Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations

Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 11, Name = Current Operations

Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 40, Name = Current Operations

Head Flow Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 9, Name = Current Operations

gOutput Eff Cap

**IPC Proprietary Data**

Maintenance Data, Name - None

IDay Unit

Min\_Unit Data, Name - None

Head Flow Eff CenterLine Headloss  
GeneratorEff OpStyle



Complete Scenario Data for Scenario—OP-1\_Scenario1d\_hi written out on 11/03/2004 9:49:06 AM

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Complete Scenario Data for Scenario - OP-1\_Scenariold\_hi  
 Written out on 11/03/2004 9:49:06 AM

System Misc. Name - Proposed Ops High					
Load_Shape_ID	CarryOver	MaxPeak	ForecastDays	ForecastAcr	
Fall_Chinook_	Flood_Control	Max_Discharge			
8	False	False	3	1	16
4	0				

Load_Shape Data, Name - FP01 SP HL pricing			
IMonth	Period	Duration	Price
1	1	6	
1	2	0	
1	3	6	
1	4	5	
1	5	5	
1	6	0	
1	7	2	
1	8	7	
1	9	6	
1	10	4	
1	11	5	
1	12	2	
2	1	6	
2	2	0	
2	3	6	
2	4	5	
2	5	5	
2	6	0	
2	7	2	
2	8	7	
2	9	6	
2	10	4	
2	11	5	
2	12	2	
3	1	6	
3	2	0	
3	3	6	
3	4	5	
3	5	5	
3	6	0	
3	7	2	
3	8	7	
3	9	6	
3	10	4	
3	11	5	
3	12	2	
4	1	6	
4	2	0	
4	3	8	
4	4	0	
4	5	8	
4	6	0	
4	7	2	

4	8	7
4	9	8
4	10	0
4	11	7
4	12	2
5	1	6
5	2	0
5	3	8
5	4	0
5	5	8
5	6	0
5	7	2
5	8	7
5	9	8
5	10	0
5	11	7
5	12	2
6	1	6
6	2	0
6	3	8
6	4	0
6	5	8
6	6	0
6	7	2
6	8	7
6	9	8
6	10	0
6	11	7
6	12	2
7	1	6
7	2	0
7	3	16
7	4	0
7	5	0
7	6	0
7	7	2
7	8	8
7	9	14
7	10	0
7	11	0
7	12	2
8	1	6
8	2	0
8	3	16
8	4	0
8	5	0
8	6	0
8	7	2
8	8	8
8	9	14
8	10	0
8	11	0
8	12	2
9	1	6
9	2	0
9	3	16
9	4	0



9	5	0
9	6	0
9	7	2
9	8	8
9	9	14
9	10	0
9	11	0
9	12	2
10	1	6
10	2	0
10	3	6
10	4	4
10	5	6
10	6	0
10	7	2
10	8	7
10	9	6
10	10	4
10	11	5
10	12	2
11	1	6
11	2	0
11	3	6
11	4	4
11	5	6
11	6	0
11	7	2
11	8	7
11	9	6
11	10	4
11	11	5
11	12	2
12	1	6
12	2	0
12	3	6
12	4	4
12	5	6
12	6	0
12	7	2
12	8	7
12	9	6
12	10	4
12	11	5
12	12	2

Fall\_Chinook Data, Name - Proposed Ops High

Draw_Start	Refill_Start	Refill_End	Max_Discharge	Minimum_Max
Maximum_Max	Target_Elevat	Refill_Elevat	Allow_Peak	
252	294	345	13000	0
0	2076	False		0

Flood\_Control Data, Name - RC V2000

IDay	Dalles_Foreca	Brownlee_Fore	Req_Volume
59	75	3	0
59	75	4	200

59	75	5	300
59	75	6	400
59	85	3	150
59	85	4	300
59	85	5	350
59	85	6	400
59	95	3	200
59	95	4	300
59	95	5	350
59	95	6	400
59	105	3	300
59	105	4	400
59	105	5	400
59	105	6	400
59	115	3	300
59	115	4	400
59	115	5	500
59	115	6	500
90	75	3	0
90	75	4	100
90	75	5	200
90	75	6	350
90	85	3	100
90	85	4	300
90	85	5	400
90	85	6	450
90	95	3	150
90	95	4	300
90	95	5	400
90	95	6	500
90	105	3	200
90	105	4	425
90	105	5	475
90	105	6	500
90	115	3	250
90	115	4	450
90	115	5	600
90	115	6	750
105	75	3	0
105	75	4	50
105	75	5	150
105	75	6	250
105	85	3	50
105	85	4	250
105	85	5	400
105	85	6	500
105	95	3	100
105	95	4	300
105	95	5	425
105	95	6	550
105	105	3	150
105	105	4	450
105	105	5	525
105	105	6	600
105	115	3	200
105	115	4	500
105	115	5	650

105	115	6	850
120	75	3	0
120	75	4	0
120	75	5	50
120	75	6	150
120	85	3	0
120	85	4	250
120	85	5	400
120	85	6	500
120	95	3	50
120	95	4	300
120	95	5	450
120	95	6	600
120	105	3	100
120	105	4	450
120	105	5	550
120	105	6	700
120	115	3	150
120	115	4	550
120	115	5	750
120	115	6	980

Max\_Discharge Data, Name - None  
IDay Flow

Scenario Information for Brownlee

Physical Setting Conditions, Name - Current Ops 97b

Res\_Storage Data, Name - CEQUAL97b

Elevation	Storage
1973.2	432247
1979.8	475263
1983.2	498341
1986.5	521420
1989.8	546048
1993.1	570676
1996.5	596713
1999.8	622750
2003.1	650212
2006.5	677675
2009.8	706573
2013.1	735471
2016.5	765566
2019.8	795660
2023.1	827202
2029.8	891862
2033.1	924980
2036.4	959727
2039.8	994474

2043.1	1030689
2046.4	1066905
2049.8	1104803
2053.1	1142701
2056.4	1182254
2059.7	1221807
2063.1	1263344
2066.4	1304880
2069.7	1348494
2073.06	1392108
2076.4	1437212
2079.7	1482317

Tailwater Data, Name - Current Operations  
Flow                      Elevation

500	0.32
1000	0.38
2000	0.51
3000	0.63
4000	0.75
5000	0.87
6000	1
7000	1.11
8000	1.23
9000	1.35
10000	1.47
11000	1.59
12000	1.7
13000	1.82
14000	1.93
15000	2.05
20000	2.61
25000	3.15
30000	3.67
35000	4.18
40000	4.66
45000	5.13
50000	5.58
55000	6
60000	6.42
65000	6.81
70000	7.18
75000	7.54
80000	7.87
85000	8.19
90000	8.49
95000	8.77
100000	9.03

Ramp\_Curve Data, Name - None  
Flow                      Elevation

Outlet1 Data, Name - None  
Elevation              Flow

Outlet2 Data, Name - Current Operations

Elevation	Flow
2027	0
2033	5250
2037	12500
2044	27750
2050	46000
2077	171300

Outlet3 Data, Name - Brownlee Gates

Elevation	Flow
1976	51500
1990	69000
2010	87500
2027	100500
2050	116000
2079	132500

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops High

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
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Base Data, Name - Proposed Ops High

IDay	Data	OrInflow	Dependent
1	12000	False	False
152	12000	False	False
153	6500	True	False
293	6500	True	False
294	13000	False	False
345	13000	False	False
346	12000	False	False
365	12000	False	False

Target\_Elev Data, Name - Proposed Ops High

IDay	Elevation	HardTarget
1	2076	0
7	2076	0
189	2076	0
243	2059	0
252	2059	0
253	2076	0
365	2076	0

Flood\_Elev Data, Name - H2077 all year

IDay	Elevation
------	-----------

1 2077  
365 2077

Min\_Elev Data, Name - H1976 all year  
IDay Elevation

1 1976  
365 1976

Level\_Fluct Data, Name - LF3 all yr  
IDay Weekday Weekend

	Weekday	Weekend	Hard	Spill
1	3	3	False	False
244	3	3	False	False
365	3	3	False	False

Level\_Rate Data, Name - None  
IDay Rate

Flashboard Data, Name - None  
Elevation Volume Trip Reset

Bypass Data, Name - None  
IDay Data OrInflow Destination

Ramp\_Rate Data, Name - None  
IDay UpRampDay UpRampHour DownRampDay DownRampHour Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 6, Name = Current Operations  
Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 34, Name = Current Operations  
Head Flow Eff

**IPC Proprietary Data**

Turbine Performance, ID = 47, Name = Unit 5 n  
Head Flow Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 5, Name = Unit 5 Current Ops  
gOutput            Eff            Cap

**IPC Proprietary Data**

Generator Performance Data, ID = 6, Name = Units 1 - 4 Current Ops  
gOutput            Eff            Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay            Unit

Min\_Unit Data, Name - None  
Head            Flow            Eff            CenterLine            Headloss  
GeneratorEff    OpStyle

Scenario Information for Oxbow

Physical Setting Conditions, Name - Current Operations

Res\_Storage Data, Name - CEQUAL RS Curve  
Elevation        Storage

1786.42	38536.44
1789.7	41746
1792.98	44954.86
1796.3	48465
1799.54	51975.63
1802.8	55731
1806.1	59487

Tailwater Data, Name - Current Operations  
Flow            Elevation

1	1490
---	------

Ramp\_Curve Data, Name - None  
Flow            Elevation

Outlet1 Data, Name - None  
Elevation        Flow

Outlet2 Data, Name - Current Operations  
Elevation        Flow

1755	0
1765	25000
1773	50000
1778	55000
1783	100000
1787	125000
1792	150000
1795	175000
1798	200000
1802	225000
1805	250000
1808	275000
1811	300000

Outlet3 Data, Name - None  
Elevation Flow

Plant_Options Data, Name - Current Operations				
Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops

Minimum Data, Name - None			
IDay	Data	OrInflow	Dependent

Base Data, Name - None			
IDay	Data	OrInflow	Dependent

Target_Elev Data, Name - H1803		
IDay	Elevation	HardTarget
1	1803	0
365	1803	0

Flood_Elev Data, Name - Current Operations	
IDay	Elevation
1	1805
365	1805

Min_Elev Data, Name - H1795 all year	
IDay	Elevation
1	1795
365	1795

Level_Fluct Data, Name - LF5 all year				
IDay	Weekday	Weekend	Hard	Spill
1	5	5	True	False
365	5	5	True	False



Level\_Rate Data, Name - None  
IDay            Rate

Flashboard Data, Name - None  
Elevation      Volume            Trip            Reset

Bypass Data, Name - Q100 all year  
IDay            Data            OrInflow        Destination  
1                100            False            3  
365              100            False            3

Ramp\_Rate Data, Name - None  
IDay            UpRampDay        UpRampHour      DownRampDay      DownRampHour      Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal      Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No        Head\_Loss\_ID    Generator\_Per    Turbine\_Perf\_    Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 8, Name = Current Operations  
Unit\_No        Unit\_HL        Common\_HL        Use\_Com2        Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 37, Name = Current Operations  
Head            Flow            Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 7, Name = Current Operations  
gOutput        Eff            Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay            Unit

Min\_Unit Data, Name - None  
Head            Flow            Eff            CenterLine        Headloss  
GeneratorEff    OpStyle

Scenario Information for Hells Canyon

Physical Setting Conditions, Name - PropOps\_HCDamCurve\_grid20ft

Res\_Storage Data, Name - CEQUAL RS Curve 20ft drawdown

Elevation            Storage

1666.7	135049
1668.3	138532
1669.9	142016
1673.2	148983
1674.9	152701
1676.5	156419
1679.8	163855
1683.1	171642
1686.4	179429
1689.6	187475
1692.9	195521

Tailwater Data, Name - Current Operations

Flow                Elevation

6000	1467.98
7000	1468.91
8000	1469.68
9000	1470.34
12000	1471.91
14000	1472.77
18000	1474.1
20000	1474.89
24000	1476.1
28000	1477.21
30000	1477.74
35000	1478.98
40000	1480.14
44000	1481.01
48000	1481.84
54000	1483.01
60000	1484.09
65000	1484.92
72500	1486.06
75000	1486.41
80000	1487.08
85000	1487.68
90000	1488.24
95000	1488.73
100000	1489.18
105000	1489.57

Ramp\_Curve Data, Name - HC Dam rating curve

Flow                Elevation

0	59
3950	62
4710	62.5

5531	63
6412	63.5
7352	64
9407	65
10520	65.5
11690	66
12920	66.5
14200	67
16940	68
19890	69
23050	70
26430	71
30020	72
33820	73
37830	74
42040	75
46450	76
51070	77
55880	78
60890	79
66100	80
71500	81
77100	82
82900	83
88890	84
95070	85
101400	86
108000	87

Outlet1 Data, Name - None  
Elevation      Flow

Outlet2 Data, Name - Current Operations  
Elevation      Flow

1600	0
1668	168000
1673	195000
1678	226000
1683	255000
1688	284000
1691	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant_Options Data, Name - Current Operations				
Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	2	2

Operating Setting Conditions, Name - PropOps\_hi\_RR2inMarMay

Minimum Data, Name - Proposed Ops High			
IDay	Data	OrInflow	Dependent

1	12000	False	False
152	12000	False	False
153	6500	True	False
293	6500	True	False
294	13000	False	False
345	13000	False	False
346	12000	False	False
365	12000	False	False

Base Data, Name - None

IDay	Data	OrInflow	Dependent
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Target\_Elev Data, Name - H1687

IDay	Elevation	HardTarget
1	1687	0
365	1687	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1688
365	1688

Min\_Elev Data, Name - OP-1\_Scenariold\_2

IDay	Elevation
1	1683
59	1683
60	1668
151	1668
152	1683
365	1683

Level\_Fluct Data, Name - OP-1\_Scenariold\_le\_2

IDay	Weekday	Weekend	Hard	Spill
1	5	5	False	False
59	5	5	False	False
60	20	20	False	False
150	20	20	False	False
152	5	5	False	False
365	5	5	False	False

Level\_Rate Data, Name - None

IDay	Rate
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Flashboard Data, Name - None

Elevation	Volume	Trip	Reset
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Bypass Data, Name - None

IDay	Data	OrInflow	Destination
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Ramp\_Rate Data, Name - RR0.167MarchMay

IDay	UpRampDay	UpRampHour	DownRampDay	DownRampHour	Type
Peak_Inside					
1	10	1	10	1	Stage
False					
60	10	0.167	10	0.167	Stage
False					
151	10	0.167	10	0.167	Stage
False					
152	4	1	4	1	Stage
False					
273	4	1	4	1	Stage
False					
274	10	1	10	1	Stage
False					
365	10	1	10	1	Stage
False					

Withdrawal Data, Name - None

Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations

Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 11, Name = Current Operations

Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 40, Name = Current Operations

Head Flow Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 9, Name = Current Operations

gOutput Eff Cap

**IPC Proprietary Data**

Maintenance Data, Name - None

IDay Unit

Min\_Unit Data, Name - None

Head Flow Eff CenterLine Headloss  
GeneratorEff OpStyle



Complete Scenario Data for Scenario—OP-1\_Scenario1d\_lo written out on 11/03/2004 9:49:16 AM

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Complete Scenario Data for Scenario - OP-1\_Scenariold\_lo  
 Written out on 11/03/2004 9:49:16 AM

System Misc. Name - Proposed Ops Low					
Load_Shape_ID	CarryOver	MaxPeak	ForecastDays	ForecastAcr	
Fall_Chinook_	Flood_Control	Max_Discharge			
8	False	False	3	1	14
4	0				

Load_Shape Data, Name - FP01 SP HL pricing			
IMonth	Period	Duration	Price
1	1	6	
1	2	0	
1	3	6	
1	4	5	
1	5	5	
1	6	0	
1	7	2	
1	8	7	
1	9	6	
1	10	4	
1	11	5	
1	12	2	
2	1	6	
2	2	0	
2	3	6	
2	4	5	
2	5	5	
2	6	0	
2	7	2	
2	8	7	
2	9	6	
2	10	4	
2	11	5	
2	12	2	
3	1	6	
3	2	0	
3	3	6	
3	4	5	
3	5	5	
3	6	0	
3	7	2	
3	8	7	
3	9	6	
3	10	4	
3	11	5	
3	12	2	
4	1	6	
4	2	0	
4	3	8	
4	4	0	
4	5	8	
4	6	0	
4	7	2	

4	8	7
4	9	8
4	10	0
4	11	7
4	12	2
5	1	6
5	2	0
5	3	8
5	4	0
5	5	8
5	6	0
5	7	2
5	8	7
5	9	8
5	10	0
5	11	7
5	12	2
6	1	6
6	2	0
6	3	8
6	4	0
6	5	8
6	6	0
6	7	2
6	8	7
6	9	8
6	10	0
6	11	7
6	12	2
7	1	6
7	2	0
7	3	16
7	4	0
7	5	0
7	6	0
7	7	2
7	8	8
7	9	14
7	10	0
7	11	0
7	12	2
8	1	6
8	2	0
8	3	16
8	4	0
8	5	0
8	6	0
8	7	2
8	8	8
8	9	14
8	10	0
8	11	0
8	12	2
9	1	6
9	2	0
9	3	16
9	4	0

9	5	0
9	6	0
9	7	2
9	8	8
9	9	14
9	10	0
9	11	0
9	12	2
10	1	6
10	2	0
10	3	6
10	4	4
10	5	6
10	6	0
10	7	2
10	8	7
10	9	6
10	10	4
10	11	5
10	12	2
11	1	6
11	2	0
11	3	6
11	4	4
11	5	6
11	6	0
11	7	2
11	8	7
11	9	6
11	10	4
11	11	5
11	12	2
12	1	6
12	2	0
12	3	6
12	4	4
12	5	6
12	6	0
12	7	2
12	8	7
12	9	6
12	10	4
12	11	5
12	12	2

Fall\_Chinook Data, Name - Proposed Ops Low

Draw_Start	Refill_Start	Refill_End	Max_Discharge	Minimum_Max
Maximum_Max	Target_Elevat	Refill_Elevat	Allow_Peak	
252	294	345	9000	0
0	2076	False		0

Flood\_Control Data, Name - RC V2000

IDay	Dalles_Foreca	Brownlee_Fore	Req_Volume
59	75	3	0
59	75	4	200

59	75	5	300
59	75	6	400
59	85	3	150
59	85	4	300
59	85	5	350
59	85	6	400
59	95	3	200
59	95	4	300
59	95	5	350
59	95	6	400
59	105	3	300
59	105	4	400
59	105	5	400
59	105	6	400
59	115	3	300
59	115	4	400
59	115	5	500
59	115	6	500
90	75	3	0
90	75	4	100
90	75	5	200
90	75	6	350
90	85	3	100
90	85	4	300
90	85	5	400
90	85	6	450
90	95	3	150
90	95	4	300
90	95	5	400
90	95	6	500
90	105	3	200
90	105	4	425
90	105	5	475
90	105	6	500
90	115	3	250
90	115	4	450
90	115	5	600
90	115	6	750
105	75	3	0
105	75	4	50
105	75	5	150
105	75	6	250
105	85	3	50
105	85	4	250
105	85	5	400
105	85	6	500
105	95	3	100
105	95	4	300
105	95	5	425
105	95	6	550
105	105	3	150
105	105	4	450
105	105	5	525
105	105	6	600
105	115	3	200
105	115	4	500
105	115	5	650

105	115	6	850
120	75	3	0
120	75	4	0
120	75	5	50
120	75	6	150
120	85	3	0
120	85	4	250
120	85	5	400
120	85	6	500
120	95	3	50
120	95	4	300
120	95	5	450
120	95	6	600
120	105	3	100
120	105	4	450
120	105	5	550
120	105	6	700
120	115	3	150
120	115	4	550
120	115	5	750
120	115	6	980

Max\_Discharge Data, Name - None  
IDay Flow

Scenario Information for Brownlee

Physical Setting Conditions, Name - Current Ops 97b

Res\_Storage Data, Name - CEQUAL97b

Elevation	Storage
1973.2	432247
1979.8	475263
1983.2	498341
1986.5	521420
1989.8	546048
1993.1	570676
1996.5	596713
1999.8	622750
2003.1	650212
2006.5	677675
2009.8	706573
2013.1	735471
2016.5	765566
2019.8	795660
2023.1	827202
2029.8	891862
2033.1	924980
2036.4	959727
2039.8	994474

2043.1	1030689
2046.4	1066905
2049.8	1104803
2053.1	1142701
2056.4	1182254
2059.7	1221807
2063.1	1263344
2066.4	1304880
2069.7	1348494
2073.06	1392108
2076.4	1437212
2079.7	1482317

Tailwater Data, Name - Current Operations  
Flow                      Elevation

500	0.32
1000	0.38
2000	0.51
3000	0.63
4000	0.75
5000	0.87
6000	1
7000	1.11
8000	1.23
9000	1.35
10000	1.47
11000	1.59
12000	1.7
13000	1.82
14000	1.93
15000	2.05
20000	2.61
25000	3.15
30000	3.67
35000	4.18
40000	4.66
45000	5.13
50000	5.58
55000	6
60000	6.42
65000	6.81
70000	7.18
75000	7.54
80000	7.87
85000	8.19
90000	8.49
95000	8.77
100000	9.03

Ramp\_Curve Data, Name - None  
Flow                      Elevation

Outlet1 Data, Name - None  
Elevation                  Flow

Outlet2 Data, Name - Current Operations

Elevation	Flow
2027	0
2033	5250
2037	12500
2044	27750
2050	46000
2077	171300

Outlet3 Data, Name - Brownlee Gates

Elevation	Flow
1976	51500
1990	69000
2010	87500
2027	100500
2050	116000
2079	132500

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops Low

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - Proposed Ops Low

IDay	Data	OrInflow	Dependent
1	8500	False	False
152	8500	False	False
153	6500	True	False
293	6500	True	False
294	9000	False	False
345	9000	False	False
346	8500	False	False
365	8500	False	False

Target\_Elev Data, Name - Proposed Ops Low

IDay	Elevation	HardTarget
1	2076	0
7	2076	0
121	2076	0
189	2076	0
243	2072	0
252	2072	0
365	2076	0

Flood\_Elev Data, Name - H2077 all year

IDay	Elevation
------	-----------

1 2077  
365 2077

Min\_Elev Data, Name - H1976 all year  
IDay Elevation

1 1976  
365 1976

Level\_Fluct Data, Name - LF3 all yr  
IDay Weekday Weekend

			Hard	Spill
1	3	3	False	False
244	3	3	False	False
365	3	3	False	False

Level\_Rate Data, Name - None  
IDay Rate

Flashboard Data, Name - None  
Elevation Volume Trip Reset

Bypass Data, Name - None  
IDay Data OrInflow Destination

Ramp\_Rate Data, Name - None  
IDay UpRampDay UpRampHour DownRampDay DownRampHour Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 6, Name = Current Operations  
Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 34, Name = Current Operations  
Head Flow Eff

**IPC Proprietary Data**

Turbine Performance, ID = 47, Name = Unit 5 n  
Head Flow Eff



**IPC Proprietary Data**

Generator Performance Data, ID = 5, Name = Unit 5 Current Ops  
gOutput            Eff                    Cap

**IPC Proprietary Data**

Generator Performance Data, ID = 6, Name = Units 1 - 4 Current Ops  
gOutput            Eff                    Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay                Unit

Min\_Unit Data, Name - None  
Head                Flow                    Eff                    CenterLine            Headloss  
GeneratorEff    OpStyle

Scenario Information for Oxbow

Physical Setting Conditions, Name - Current Operations

Res\_Storage Data, Name - CEQUAL RS Curve  
Elevation            Storage

1786.42	38536.44
1789.7	41746
1792.98	44954.86
1796.3	48465
1799.54	51975.63
1802.8	55731
1806.1	59487

Tailwater Data, Name - Current Operations  
Flow                Elevation

1	1490
---	------

Ramp\_Curve Data, Name - None  
Flow                Elevation

Outlet1 Data, Name - None  
Elevation            Flow

Outlet2 Data, Name - Current Operations  
Elevation            Flow

1755	0
1765	25000
1773	50000
1778	55000
1783	100000
1787	125000
1792	150000
1795	175000
1798	200000
1802	225000
1805	250000
1808	275000
1811	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1803

IDay	Elevation	HardTarget
1	1803	0
365	1803	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1805
365	1805

Min\_Elev Data, Name - H1795 all year

IDay	Elevation
1	1795
365	1795

Level\_Fluct Data, Name - LF5 all year

IDay	Weekday	Weekend	Hard	Spill
1	5	5	True	False
365	5	5	True	False

Level\_Rate Data, Name - None  
IDay Rate

Flashboard Data, Name - None  
Elevation Volume Trip Reset

Bypass Data, Name - Q100 all year  
IDay Data OrInflow Destination  
1 100 False 3  
365 100 False 3

Ramp\_Rate Data, Name - None  
IDay UpRampDay UpRampHour DownRampDay DownRampHour Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 8, Name = Current Operations  
Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 37, Name = Current Operations  
Head Flow Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 7, Name = Current Operations  
gOutput Eff Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay Unit

Min\_Unit Data, Name - None  
Head Flow Eff CenterLine Headloss  
GeneratorEff OpStyle

Scenario Information for Hells Canyon

Physical Setting Conditions, Name - PropOps\_HCDamCurve\_grid20ft

Res\_Storage Data, Name - CEQUAL RS Curve 20ft drawdown

Elevation            Storage

1666.7	135049
1668.3	138532
1669.9	142016
1673.2	148983
1674.9	152701
1676.5	156419
1679.8	163855
1683.1	171642
1686.4	179429
1689.6	187475
1692.9	195521

Tailwater Data, Name - Current Operations

Flow                Elevation

6000	1467.98
7000	1468.91
8000	1469.68
9000	1470.34
12000	1471.91
14000	1472.77
18000	1474.1
20000	1474.89
24000	1476.1
28000	1477.21
30000	1477.74
35000	1478.98
40000	1480.14
44000	1481.01
48000	1481.84
54000	1483.01
60000	1484.09
65000	1484.92
72500	1486.06
75000	1486.41
80000	1487.08
85000	1487.68
90000	1488.24
95000	1488.73
100000	1489.18
105000	1489.57

Ramp\_Curve Data, Name - HC Dam rating curve

Flow                Elevation

0	59
3950	62

4710	62.5
5531	63
6412	63.5
7352	64
9407	65
10520	65.5
11690	66
12920	66.5
14200	67
16940	68
19890	69
23050	70
26430	71
30020	72
33820	73
37830	74
42040	75
46450	76
51070	77
55880	78
60890	79
66100	80
71500	81
77100	82
82900	83
88890	84
95070	85
101400	86
108000	87

Outlet1 Data, Name - None  
Elevation      Flow

Outlet2 Data, Name - Current Operations  
Elevation      Flow

1600	0
1668	168000
1673	195000
1678	226000
1683	255000
1688	284000
1691	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant_Options Data, Name - Current Operations				
Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	2	2

Operating Setting Conditions, Name - PropOps\_lo\_2inMarMay

Minimum Data, Name - Proposed Ops low

IDay	Data	OrInflow	Dependent
1	8500	False	False
152	8500	False	False
153	6500	True	False
293	6500	True	False
294	9000	False	False
345	9000	False	False
346	8500	False	False
365	8500	False	False

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1687

IDay	Elevation	HardTarget
1	1687	0
365	1687	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1688
365	1688

Min\_Elev Data, Name - OP-1\_Scenariold\_2

IDay	Elevation
1	1683
59	1683
60	1668
151	1668
152	1683
365	1683

Level\_Fluct Data, Name - OP-1\_Scenariold\_le\_2

IDay	Weekday	Weekend	Hard	Spill
1	5	5	False	False
59	5	5	False	False
60	20	20	False	False
150	20	20	False	False
152	5	5	False	False
365	5	5	False	False

Level\_Rate Data, Name - None

IDay	Rate
------	------

Flashboard Data, Name - None

Elevation	Volume	Trip	Reset
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Bypass Data, Name - None

IDay	Data	OrInflow	Destination
------	------	----------	-------------

Ramp\_Rate Data, Name - RR0.167MarchMay

IDay	UpRampDay	UpRampHour	DownRampDay	DownRampHour	Type
Peak_Inside					
1	10	1	10	1	Stage
False					
60	10	0.167	10	0.167	Stage
False					
151	10	0.167	10	0.167	Stage
False					
152	4	1	4	1	Stage
False					
273	4	1	4	1	Stage
False					
274	10	1	10	1	Stage
False					
365	10	1	10	1	Stage
False					

Withdrawal Data, Name - None

Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations

Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 11, Name = Current Operations

Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 40, Name = Current Operations

Head Flow Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 9, Name = Current Operations

gOutput Eff Cap

**IPC Proprietary Data**

Maintenance Data, Name - None

IDay Unit

Min\_Unit Data, Name - None

Head Flow Eff CenterLine Headloss  
GeneratorEff OpStyle





Complete Scenario Data for Scenario—OP-1\_Scenario1e\_average written out on 11/03/2004 9:51:11 AM

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Complete Scenario Data for Scenario - OP-1\_Scenariole\_average  
 Written out on 11/03/2004 9:51:11 AM

System Misc. Name - Proposed Ops Average					
Load_Shape_ID	CarryOver	MaxPeak	ForecastDays	ForecastAcr	
Fall_Chinook_	Flood_Control	Max_Discharge			
8	False	False	3	1	15
4	0				

Load_Shape Data, Name - FP01 SP HL pricing			
IMonth	Period	Duration	Price
1	1	6	
1	2	0	
1	3	6	
1	4	5	
1	5	5	
1	6	0	
1	7	2	
1	8	7	
1	9	6	
1	10	4	
1	11	5	
1	12	2	
2	1	6	
2	2	0	
2	3	6	
2	4	5	
2	5	5	
2	6	0	
2	7	2	
2	8	7	
2	9	6	
2	10	4	
2	11	5	
2	12	2	
3	1	6	
3	2	0	
3	3	6	
3	4	5	
3	5	5	
3	6	0	
3	7	2	
3	8	7	
3	9	6	
3	10	4	
3	11	5	
3	12	2	
4	1	6	
4	2	0	
4	3	8	
4	4	0	
4	5	8	
4	6	0	
4	7	2	

4	8	7
4	9	8
4	10	0
4	11	7
4	12	2
5	1	6
5	2	0
5	3	8
5	4	0
5	5	8
5	6	0
5	7	2
5	8	7
5	9	8
5	10	0
5	11	7
5	12	2
6	1	6
6	2	0
6	3	8
6	4	0
6	5	8
6	6	0
6	7	2
6	8	7
6	9	8
6	10	0
6	11	7
6	12	2
7	1	6
7	2	0
7	3	16
7	4	0
7	5	0
7	6	0
7	7	2
7	8	8
7	9	14
7	10	0
7	11	0
7	12	2
8	1	6
8	2	0
8	3	16
8	4	0
8	5	0
8	6	0
8	7	2
8	8	8
8	9	14
8	10	0
8	11	0
8	12	2
9	1	6
9	2	0
9	3	16
9	4	0

9	5	0
9	6	0
9	7	2
9	8	8
9	9	14
9	10	0
9	11	0
9	12	2
10	1	6
10	2	0
10	3	6
10	4	4
10	5	6
10	6	0
10	7	2
10	8	7
10	9	6
10	10	4
10	11	5
10	12	2
11	1	6
11	2	0
11	3	6
11	4	4
11	5	6
11	6	0
11	7	2
11	8	7
11	9	6
11	10	4
11	11	5
11	12	2
12	1	6
12	2	0
12	3	6
12	4	4
12	5	6
12	6	0
12	7	2
12	8	7
12	9	6
12	10	4
12	11	5
12	12	2

Fall\_Chinook Data, Name - Proposed Ops Average

Draw_Start	Refill_Start	Refill_End	Max_Discharge	Minimum_Max
Maximum_Max	Target_Elevat	Refill_Elevat	Allow_Peak	
252	294	345	11500	0
0	2076	False		0

Flood\_Control Data, Name - RC V2000

IDay	Dalles_Foreca	Brownlee_Fore	Req_Volume
59	75	3	0
59	75	4	200

59	75	5	300
59	75	6	400
59	85	3	150
59	85	4	300
59	85	5	350
59	85	6	400
59	95	3	200
59	95	4	300
59	95	5	350
59	95	6	400
59	105	3	300
59	105	4	400
59	105	5	400
59	105	6	400
59	115	3	300
59	115	4	400
59	115	5	500
59	115	6	500
90	75	3	0
90	75	4	100
90	75	5	200
90	75	6	350
90	85	3	100
90	85	4	300
90	85	5	400
90	85	6	450
90	95	3	150
90	95	4	300
90	95	5	400
90	95	6	500
90	105	3	200
90	105	4	425
90	105	5	475
90	105	6	500
90	115	3	250
90	115	4	450
90	115	5	600
90	115	6	750
105	75	3	0
105	75	4	50
105	75	5	150
105	75	6	250
105	85	3	50
105	85	4	250
105	85	5	400
105	85	6	500
105	95	3	100
105	95	4	300
105	95	5	425
105	95	6	550
105	105	3	150
105	105	4	450
105	105	5	525
105	105	6	600
105	115	3	200
105	115	4	500
105	115	5	650

105	115	6	850
120	75	3	0
120	75	4	0
120	75	5	50
120	75	6	150
120	85	3	0
120	85	4	250
120	85	5	400
120	85	6	500
120	95	3	50
120	95	4	300
120	95	5	450
120	95	6	600
120	105	3	100
120	105	4	450
120	105	5	550
120	105	6	700
120	115	3	150
120	115	4	550
120	115	5	750
120	115	6	980

Max\_Discharge Data, Name - None  
IDay Flow

Scenario Information for Brownlee

Physical Setting Conditions, Name - Current Ops 97b

Res\_Storage Data, Name - CEQUAL97b

Elevation	Storage
1973.2	432247
1979.8	475263
1983.2	498341
1986.5	521420
1989.8	546048
1993.1	570676
1996.5	596713
1999.8	622750
2003.1	650212
2006.5	677675
2009.8	706573
2013.1	735471
2016.5	765566
2019.8	795660
2023.1	827202
2029.8	891862
2033.1	924980
2036.4	959727
2039.8	994474

2043.1	1030689
2046.4	1066905
2049.8	1104803
2053.1	1142701
2056.4	1182254
2059.7	1221807
2063.1	1263344
2066.4	1304880
2069.7	1348494
2073.06	1392108
2076.4	1437212
2079.7	1482317

Tailwater Data, Name - Current Operations  
Flow                      Elevation

500	0.32
1000	0.38
2000	0.51
3000	0.63
4000	0.75
5000	0.87
6000	1
7000	1.11
8000	1.23
9000	1.35
10000	1.47
11000	1.59
12000	1.7
13000	1.82
14000	1.93
15000	2.05
20000	2.61
25000	3.15
30000	3.67
35000	4.18
40000	4.66
45000	5.13
50000	5.58
55000	6
60000	6.42
65000	6.81
70000	7.18
75000	7.54
80000	7.87
85000	8.19
90000	8.49
95000	8.77
100000	9.03

Ramp\_Curve Data, Name - None  
Flow                      Elevation

Outlet1 Data, Name - None  
Elevation                  Flow



Outlet2 Data, Name - Current Operations

Elevation	Flow
2027	0
2033	5250
2037	12500
2044	27750
2050	46000
2077	171300

Outlet3 Data, Name - Brownlee Gates

Elevation	Flow
1976	51500
1990	69000
2010	87500
2027	100500
2050	116000
2079	132500

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops Average

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - Proposed Ops Average

IDay	Data	OrInflow	Dependent
1	10500	False	False
152	10500	False	False
153	6500	True	False
293	6500	True	False
294	11500	False	False
345	11500	False	False
346	10500	False	False
365	10500	False	False

Target\_Elev Data, Name - Proposed Ops Average

IDay	Elevation	HardTarget
1	2076	0
7	2076	0
158	2069	0
189	2076	0
243	2069	0
252	2069	0
365	2076	0

Flood\_Elev Data, Name - H2077 all year

IDay	Elevation
------	-----------

1 2077  
365 2077

Min\_Elev Data, Name - H1976 all year  
IDay Elevation

1 1976  
365 1976

Level\_Fluct Data, Name - LF3 all yr  
IDay Weekday Weekend

	Weekday	Weekend	Hard	Spill
1	3	3	False	False
244	3	3	False	False
365	3	3	False	False

Level\_Rate Data, Name - None  
IDay Rate

Flashboard Data, Name - None  
Elevation Volume Trip Reset

Bypass Data, Name - None  
IDay Data OrInflow Destination

Ramp\_Rate Data, Name - None  
IDay UpRampDay UpRampHour DownRampDay DownRampHour Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 6, Name = Current Operations  
Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 34, Name = Current Operations  
Head Flow Eff

**IPC Proprietary Data**

Turbine Performance, ID = 47, Name = Unit 5 n  
Head Flow Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 5, Name = Unit 5 Current Ops  
gOutput            Eff                    Cap

**IPC Proprietary Data**

Generator Performance Data, ID = 6, Name = Units 1 - 4 Current Ops  
gOutput            Eff                    Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay                Unit

Min\_Unit Data, Name - None  
Head                Flow                    Eff                    CenterLine            Headloss  
GeneratorEff    OpStyle

Scenario Information for Oxbow

Physical Setting Conditions, Name - Current Operations

Res\_Storage Data, Name - CEQUAL RS Curve

Elevation	Storage
1786.42	38536.44
1789.7	41746
1792.98	44954.86
1796.3	48465
1799.54	51975.63
1802.8	55731
1806.1	59487

Tailwater Data, Name - Current Operations

Flow	Elevation
1	1490

Ramp\_Curve Data, Name - None

Flow	Elevation
------	-----------

Outlet1 Data, Name - None

Elevation	Flow
-----------	------

Outlet2 Data, Name - Current Operations

Elevation	Flow
-----------	------

1755	0
1765	25000
1773	50000
1778	55000
1783	100000
1787	125000
1792	150000
1795	175000
1798	200000
1802	225000
1805	250000
1808	275000
1811	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1803

IDay	Elevation	HardTarget
1	1803	0
365	1803	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1805
365	1805

Min\_Elev Data, Name - H1795 all year

IDay	Elevation
1	1795
365	1795

Level\_Fluct Data, Name - LF5 all year

IDay	Weekday	Weekend	Hard	Spill
1	5	5	True	False
365	5	5	True	False

Level\_Rate Data, Name - None  
IDay            Rate

Flashboard Data, Name - None  
Elevation      Volume            Trip            Reset

Bypass Data, Name - Q100 all year  
IDay            Data            OrInflow        Destination

1	100	False	3
365	100	False	3

Ramp\_Rate Data, Name - None  
IDay            UpRampDay        UpRampHour      DownRampDay      DownRampHour      Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal      Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No        Head\_Loss\_ID    Generator\_Per    Turbine\_Perf\_    Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 8, Name = Current Operations  
Unit\_No        Unit\_HL        Common\_HL        Use\_Com2        Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 37, Name = Current Operations  
Head            Flow            Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 7, Name = Current Operations  
gOutput        Eff            Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay            Unit

Min\_Unit Data, Name - None  
Head            Flow            Eff            CenterLine        Headloss  
GeneratorEff    OpStyle

Scenario Information for Hells Canyon

Physical Setting Conditions, Name - PropOps\_HCDamCurve\_grid20ft

Res\_Storage Data, Name - CEQUAL RS Curve 20ft drawdown

Elevation            Storage

1666.7	135049
1668.3	138532
1669.9	142016
1673.2	148983
1674.9	152701
1676.5	156419
1679.8	163855
1683.1	171642
1686.4	179429
1689.6	187475
1692.9	195521

Tailwater Data, Name - Current Operations

Flow                Elevation

6000	1467.98
7000	1468.91
8000	1469.68
9000	1470.34
12000	1471.91
14000	1472.77
18000	1474.1
20000	1474.89
24000	1476.1
28000	1477.21
30000	1477.74
35000	1478.98
40000	1480.14
44000	1481.01
48000	1481.84
54000	1483.01
60000	1484.09
65000	1484.92
72500	1486.06
75000	1486.41
80000	1487.08
85000	1487.68
90000	1488.24
95000	1488.73
100000	1489.18
105000	1489.57

Ramp\_Curve Data, Name - HC Dam rating curve

Flow                Elevation

0	59
3950	62

4710	62.5
5531	63
6412	63.5
7352	64
9407	65
10520	65.5
11690	66
12920	66.5
14200	67
16940	68
19890	69
23050	70
26430	71
30020	72
33820	73
37830	74
42040	75
46450	76
51070	77
55880	78
60890	79
66100	80
71500	81
77100	82
82900	83
88890	84
95070	85
101400	86
108000	87

Outlet1 Data, Name - None  
Elevation      Flow

Outlet2 Data, Name - Current Operations  
Elevation      Flow

1600	0
1668	168000
1673	195000
1678	226000
1683	255000
1688	284000
1691	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant_Options Data, Name - Current Operations				
Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	2	2

Operating Setting Conditions, Name - OP-1\_Scenariole\_average

Minimum Data, Name - Proposed Ops Average

IDay	Data	OrInflow	Dependent
1	10500	False	False
152	10500	False	False
153	6500	True	False
293	6500	True	False
294	11500	False	False
345	11500	False	False
346	10500	False	False
365	10500	False	False

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1687

IDay	Elevation	HardTarget
1	1687	0
365	1687	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1688
365	1688

Min\_Elev Data, Name - OP-1\_Scenariold\_2

IDay	Elevation
1	1683
59	1683
60	1668
151	1668
152	1683
365	1683

Level\_Fluct Data, Name - OP-1\_Scenariold\_le\_2

IDay	Weekday	Weekend	Hard	Spill
1	5	5	False	False
59	5	5	False	False
60	20	20	False	False
150	20	20	False	False
152	5	5	False	False
365	5	5	False	False

Level\_Rate Data, Name - None

IDay	Rate
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Flashboard Data, Name - None

Elevation	Volume	Trip	Reset
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Bypass Data, Name - None

IDay	Data	OrInflow	Destination
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Ramp\_Rate Data, Name - RR0.5ft March May

IDay	UpRampDay	UpRampHour	DownRampDay	DownRampHour	Type
Peak_Inside					
1	10	1	10	1	Stage
False					
60	10	0.5	10	0.5	Stage
False					
151	10	0.5	10	0.5	Stage
False					
152	4	1	4	1	Stage
False					
273	4	1	4	1	Stage
False					
274	10	1	10	1	Stage
False					
365	10	1	10	1	Stage
False					

Withdrawal Data, Name - None

Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations

Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 11, Name = Current Operations

Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 40, Name = Current Operations

Head Flow Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 9, Name = Current Operations

gOutput Eff Cap

**IPC Proprietary Data**

Maintenance Data, Name - None

IDay Unit

Min\_Unit Data, Name - None

Head Flow Eff CenterLine Headloss  
GeneratorEff OpStyle



Complete Scenario Data for Scenario—OP-1\_Scenario1e\_hi written out on 11/03/2004 9:54:09 AM

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Complete Scenario Data for Scenario - OP-1\_Scenariole\_hi  
 Written out on 11/03/2004 9:54:09 AM

System Misc. Name - Proposed Ops High					
Load_Shape_ID	CarryOver	MaxPeak	ForecastDays	ForecastAcr	
Fall_Chinook_	Flood_Control	Max_Discharge			
8	False	False	3	1	16
4	0				

Load_Shape Data, Name - FP01 SP HL pricing			
IMonth	Period	Duration	Price
1	1	6	
1	2	0	
1	3	6	
1	4	5	
1	5	5	
1	6	0	
1	7	2	
1	8	7	
1	9	6	
1	10	4	
1	11	5	
1	12	2	
2	1	6	
2	2	0	
2	3	6	
2	4	5	
2	5	5	
2	6	0	
2	7	2	
2	8	7	
2	9	6	
2	10	4	
2	11	5	
2	12	2	
3	1	6	
3	2	0	
3	3	6	
3	4	5	
3	5	5	
3	6	0	
3	7	2	
3	8	7	
3	9	6	
3	10	4	
3	11	5	
3	12	2	
4	1	6	
4	2	0	
4	3	8	
4	4	0	
4	5	8	
4	6	0	
4	7	2	

4	8	7
4	9	8
4	10	0
4	11	7
4	12	2
5	1	6
5	2	0
5	3	8
5	4	0
5	5	8
5	6	0
5	7	2
5	8	7
5	9	8
5	10	0
5	11	7
5	12	2
6	1	6
6	2	0
6	3	8
6	4	0
6	5	8
6	6	0
6	7	2
6	8	7
6	9	8
6	10	0
6	11	7
6	12	2
7	1	6
7	2	0
7	3	16
7	4	0
7	5	0
7	6	0
7	7	2
7	8	8
7	9	14
7	10	0
7	11	0
7	12	2
8	1	6
8	2	0
8	3	16
8	4	0
8	5	0
8	6	0
8	7	2
8	8	8
8	9	14
8	10	0
8	11	0
8	12	2
9	1	6
9	2	0
9	3	16
9	4	0

9	5	0
9	6	0
9	7	2
9	8	8
9	9	14
9	10	0
9	11	0
9	12	2
10	1	6
10	2	0
10	3	6
10	4	4
10	5	6
10	6	0
10	7	2
10	8	7
10	9	6
10	10	4
10	11	5
10	12	2
11	1	6
11	2	0
11	3	6
11	4	4
11	5	6
11	6	0
11	7	2
11	8	7
11	9	6
11	10	4
11	11	5
11	12	2
12	1	6
12	2	0
12	3	6
12	4	4
12	5	6
12	6	0
12	7	2
12	8	7
12	9	6
12	10	4
12	11	5
12	12	2

Fall\_Chinook Data, Name - Proposed Ops High

Draw_Start	Refill_Start	Refill_End	Max_Discharge	Minimum_Max
Maximum_Max	Target_Elevat	Refill_Elevat	Allow_Peak	
252	294	345	13000	0
0	2076	False		0

Flood\_Control Data, Name - RC V2000

IDay	Dalles_Foreca	Brownlee_Fore	Req_Volume
59	75	3	0
59	75	4	200

59	75	5	300
59	75	6	400
59	85	3	150
59	85	4	300
59	85	5	350
59	85	6	400
59	95	3	200
59	95	4	300
59	95	5	350
59	95	6	400
59	105	3	300
59	105	4	400
59	105	5	400
59	105	6	400
59	115	3	300
59	115	4	400
59	115	5	500
59	115	6	500
90	75	3	0
90	75	4	100
90	75	5	200
90	75	6	350
90	85	3	100
90	85	4	300
90	85	5	400
90	85	6	450
90	95	3	150
90	95	4	300
90	95	5	400
90	95	6	500
90	105	3	200
90	105	4	425
90	105	5	475
90	105	6	500
90	115	3	250
90	115	4	450
90	115	5	600
90	115	6	750
105	75	3	0
105	75	4	50
105	75	5	150
105	75	6	250
105	85	3	50
105	85	4	250
105	85	5	400
105	85	6	500
105	95	3	100
105	95	4	300
105	95	5	425
105	95	6	550
105	105	3	150
105	105	4	450
105	105	5	525
105	105	6	600
105	115	3	200
105	115	4	500
105	115	5	650



105	115	6	850
120	75	3	0
120	75	4	0
120	75	5	50
120	75	6	150
120	85	3	0
120	85	4	250
120	85	5	400
120	85	6	500
120	95	3	50
120	95	4	300
120	95	5	450
120	95	6	600
120	105	3	100
120	105	4	450
120	105	5	550
120	105	6	700
120	115	3	150
120	115	4	550
120	115	5	750
120	115	6	980

Max\_Discharge Data, Name - None  
IDay Flow

Scenario Information for Brownlee

Physical Setting Conditions, Name - Current Ops 97b

Res\_Storage Data, Name - CEQUAL97b

Elevation	Storage
1973.2	432247
1979.8	475263
1983.2	498341
1986.5	521420
1989.8	546048
1993.1	570676
1996.5	596713
1999.8	622750
2003.1	650212
2006.5	677675
2009.8	706573
2013.1	735471
2016.5	765566
2019.8	795660
2023.1	827202
2029.8	891862
2033.1	924980
2036.4	959727
2039.8	994474

2043.1	1030689
2046.4	1066905
2049.8	1104803
2053.1	1142701
2056.4	1182254
2059.7	1221807
2063.1	1263344
2066.4	1304880
2069.7	1348494
2073.06	1392108
2076.4	1437212
2079.7	1482317

Tailwater Data, Name - Current Operations  
Flow                      Elevation

500	0.32
1000	0.38
2000	0.51
3000	0.63
4000	0.75
5000	0.87
6000	1
7000	1.11
8000	1.23
9000	1.35
10000	1.47
11000	1.59
12000	1.7
13000	1.82
14000	1.93
15000	2.05
20000	2.61
25000	3.15
30000	3.67
35000	4.18
40000	4.66
45000	5.13
50000	5.58
55000	6
60000	6.42
65000	6.81
70000	7.18
75000	7.54
80000	7.87
85000	8.19
90000	8.49
95000	8.77
100000	9.03

Ramp\_Curve Data, Name - None  
Flow                      Elevation

Outlet1 Data, Name - None  
Elevation              Flow

Outlet2 Data, Name - Current Operations

Elevation	Flow
2027	0
2033	5250
2037	12500
2044	27750
2050	46000
2077	171300

Outlet3 Data, Name - Brownlee Gates

Elevation	Flow
1976	51500
1990	69000
2010	87500
2027	100500
2050	116000
2079	132500

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops High

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - Proposed Ops High

IDay	Data	OrInflow	Dependent
1	12000	False	False
152	12000	False	False
153	6500	True	False
293	6500	True	False
294	13000	False	False
345	13000	False	False
346	12000	False	False
365	12000	False	False

Target\_Elev Data, Name - Proposed Ops High

IDay	Elevation	HardTarget
1	2076	0
7	2076	0
189	2076	0
243	2059	0
252	2059	0
253	2076	0
365	2076	0

Flood\_Elev Data, Name - H2077 all year

IDay	Elevation
------	-----------

1 2077  
365 2077

Min\_Elev Data, Name - H1976 all year  
IDay Elevation

1 1976  
365 1976

Level\_Fluct Data, Name - LF3 all yr  
IDay Weekday Weekend

	Weekday	Weekend	Hard	Spill
1	3	3	False	False
244	3	3	False	False
365	3	3	False	False

Level\_Rate Data, Name - None  
IDay Rate

Flashboard Data, Name - None  
Elevation Volume Trip Reset

Bypass Data, Name - None  
IDay Data OrInflow Destination

Ramp\_Rate Data, Name - None  
IDay UpRampDay UpRampHour DownRampDay DownRampHour Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 6, Name = Current Operations  
Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 34, Name = Current Operations  
Head Flow Eff

**IPC Proprietary Data**

Turbine Performance, ID = 47, Name = Unit 5 n  
Head Flow Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 5, Name = Unit 5 Current Ops  
gOutput            Eff                    Cap

**IPC Proprietary Data**

Generator Performance Data, ID = 6, Name = Units 1 - 4 Current Ops  
gOutput            Eff                    Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay                Unit

Min\_Unit Data, Name - None  
Head                Flow                    Eff                    CenterLine            Headloss  
GeneratorEff    OpStyle

Scenario Information for Oxbow

Physical Setting Conditions, Name - Current Operations

Res\_Storage Data, Name - CEQUAL RS Curve

Elevation	Storage
1786.42	38536.44
1789.7	41746
1792.98	44954.86
1796.3	48465
1799.54	51975.63
1802.8	55731
1806.1	59487

Tailwater Data, Name - Current Operations

Flow	Elevation
1	1490

Ramp\_Curve Data, Name - None

Flow	Elevation
------	-----------

Outlet1 Data, Name - None

Elevation	Flow
-----------	------

Outlet2 Data, Name - Current Operations

Elevation	Flow
-----------	------

1755	0
1765	25000
1773	50000
1778	55000
1783	100000
1787	125000
1792	150000
1795	175000
1798	200000
1802	225000
1805	250000
1808	275000
1811	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1803

IDay	Elevation	HardTarget
1	1803	0
365	1803	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1805
365	1805

Min\_Elev Data, Name - H1795 all year

IDay	Elevation
1	1795
365	1795

Level\_Fluct Data, Name - LF5 all year

IDay	Weekday	Weekend	Hard	Spill
1	5	5	True	False
365	5	5	True	False

Level\_Rate Data, Name - None  
IDay            Rate

Flashboard Data, Name - None  
Elevation      Volume            Trip            Reset

Bypass Data, Name - Q100 all year  
IDay            Data            OrInflow        Destination  
1                100            False            3  
365              100            False            3

Ramp\_Rate Data, Name - None  
IDay            UpRampDay        UpRampHour      DownRampDay      DownRampHour      Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal      Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No        Head\_Loss\_ID    Generator\_Per    Turbine\_Perf\_    Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 8, Name = Current Operations  
Unit\_No        Unit\_HL        Common\_HL        Use\_Com2        Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 37, Name = Current Operations  
Head            Flow            Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 7, Name = Current Operations  
gOutput        Eff            Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay            Unit

Min\_Unit Data, Name - None  
Head            Flow            Eff            CenterLine        Headloss  
GeneratorEff    OpStyle

Scenario Information for Hells Canyon

Physical Setting Conditions, Name - PropOps\_HCDamCurve\_grid20ft

Res\_Storage Data, Name - CEQUAL RS Curve 20ft drawdown

Elevation	Storage
1666.7	135049
1668.3	138532
1669.9	142016
1673.2	148983
1674.9	152701
1676.5	156419
1679.8	163855
1683.1	171642
1686.4	179429
1689.6	187475
1692.9	195521

Tailwater Data, Name - Current Operations

Flow	Elevation
6000	1467.98
7000	1468.91
8000	1469.68
9000	1470.34
12000	1471.91
14000	1472.77
18000	1474.1
20000	1474.89
24000	1476.1
28000	1477.21
30000	1477.74
35000	1478.98
40000	1480.14
44000	1481.01
48000	1481.84
54000	1483.01
60000	1484.09
65000	1484.92
72500	1486.06
75000	1486.41
80000	1487.08
85000	1487.68
90000	1488.24
95000	1488.73
100000	1489.18
105000	1489.57

Ramp\_Curve Data, Name - HC Dam rating curve

Flow	Elevation
0	59
3950	62



4710	62.5
5531	63
6412	63.5
7352	64
9407	65
10520	65.5
11690	66
12920	66.5
14200	67
16940	68
19890	69
23050	70
26430	71
30020	72
33820	73
37830	74
42040	75
46450	76
51070	77
55880	78
60890	79
66100	80
71500	81
77100	82
82900	83
88890	84
95070	85
101400	86
108000	87

Outlet1 Data, Name - None  
Elevation      Flow

Outlet2 Data, Name - Current Operations  
Elevation      Flow

1600	0
1668	168000
1673	195000
1678	226000
1683	255000
1688	284000
1691	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant_Options Data, Name - Current Operations				
Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	2	2

Operating Setting Conditions, Name - OP-1\_Scenariole\_hi

Minimum Data, Name - Proposed Ops High

IDay	Data	OrInflow	Dependent
1	12000	False	False
152	12000	False	False
153	6500	True	False
293	6500	True	False
294	13000	False	False
345	13000	False	False
346	12000	False	False
365	12000	False	False

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1687

IDay	Elevation	HardTarget
1	1687	0
365	1687	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1688
365	1688

Min\_Elev Data, Name - OP-1\_Scenariold\_2

IDay	Elevation
1	1683
59	1683
60	1668
151	1668
152	1683
365	1683

Level\_Fluct Data, Name - OP-1\_Scenariold\_le\_2

IDay	Weekday	Weekend	Hard	Spill
1	5	5	False	False
59	5	5	False	False
60	20	20	False	False
150	20	20	False	False
152	5	5	False	False
365	5	5	False	False

Level\_Rate Data, Name - None

IDay	Rate
------	------

Flashboard Data, Name - None

Elevation	Volume	Trip	Reset
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Bypass Data, Name - None

IDay	Data	OrInflow	Destination
------	------	----------	-------------

Ramp\_Rate Data, Name - RR0.5ft March May

IDay	UpRampDay	UpRampHour	DownRampDay	DownRampHour	Type
Peak_Inside					
1	10	1	10	1	Stage
False					
60	10	0.5	10	0.5	Stage
False					
151	10	0.5	10	0.5	Stage
False					
152	4	1	4	1	Stage
False					
273	4	1	4	1	Stage
False					
274	10	1	10	1	Stage
False					
365	10	1	10	1	Stage
False					

Withdrawal Data, Name - None

Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations

Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 11, Name = Current Operations

Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 40, Name = Current Operations

Head Flow Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 9, Name = Current Operations

gOutput Eff Cap

**IPC Proprietary Data**

Maintenance Data, Name - None

IDay Unit

Min\_Unit Data, Name - None

Head Flow Eff CenterLine Headloss  
GeneratorEff OpStyle



Complete Scenario Data for Scenario—OP-1\_Scenario1e\_lo written out on 11/03/2004 9:54:22 AM

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Complete Scenario Data for Scenario - OP-1\_Scenariole\_lo  
 Written out on 11/03/2004 9:54:22 AM

System Misc. Name - Proposed Ops Low					
Load_Shape_ID	CarryOver	MaxPeak	ForecastDays	ForecastAcr	
Fall_Chinook_	Flood_Control	Max_Discharge			
8	False	False	3	1	14
4	0				

Load_Shape Data, Name - FP01 SP HL pricing			
IMonth	Period	Duration	Price
1	1	6	
1	2	0	
1	3	6	
1	4	5	
1	5	5	
1	6	0	
1	7	2	
1	8	7	
1	9	6	
1	10	4	
1	11	5	
1	12	2	
2	1	6	
2	2	0	
2	3	6	
2	4	5	
2	5	5	
2	6	0	
2	7	2	
2	8	7	
2	9	6	
2	10	4	
2	11	5	
2	12	2	
3	1	6	
3	2	0	
3	3	6	
3	4	5	
3	5	5	
3	6	0	
3	7	2	
3	8	7	
3	9	6	
3	10	4	
3	11	5	
3	12	2	
4	1	6	
4	2	0	
4	3	8	
4	4	0	
4	5	8	
4	6	0	
4	7	2	

4	8	7
4	9	8
4	10	0
4	11	7
4	12	2
5	1	6
5	2	0
5	3	8
5	4	0
5	5	8
5	6	0
5	7	2
5	8	7
5	9	8
5	10	0
5	11	7
5	12	2
6	1	6
6	2	0
6	3	8
6	4	0
6	5	8
6	6	0
6	7	2
6	8	7
6	9	8
6	10	0
6	11	7
6	12	2
7	1	6
7	2	0
7	3	16
7	4	0
7	5	0
7	6	0
7	7	2
7	8	8
7	9	14
7	10	0
7	11	0
7	12	2
8	1	6
8	2	0
8	3	16
8	4	0
8	5	0
8	6	0
8	7	2
8	8	8
8	9	14
8	10	0
8	11	0
8	12	2
9	1	6
9	2	0
9	3	16
9	4	0



9	5	0
9	6	0
9	7	2
9	8	8
9	9	14
9	10	0
9	11	0
9	12	2
10	1	6
10	2	0
10	3	6
10	4	4
10	5	6
10	6	0
10	7	2
10	8	7
10	9	6
10	10	4
10	11	5
10	12	2
11	1	6
11	2	0
11	3	6
11	4	4
11	5	6
11	6	0
11	7	2
11	8	7
11	9	6
11	10	4
11	11	5
11	12	2
12	1	6
12	2	0
12	3	6
12	4	4
12	5	6
12	6	0
12	7	2
12	8	7
12	9	6
12	10	4
12	11	5
12	12	2

Fall\_Chinook Data, Name - Proposed Ops Low

Draw_Start	Refill_Start	Refill_End	Max_Discharge	Minimum_Max
Maximum_Max	Target_Elevat	Refill_Elevat	Allow_Peak	
252	294	345	9000	0
0	2076	False		0

Flood\_Control Data, Name - RC V2000

IDay	Dalles_Foreca	Brownlee_Fore	Req_Volume
59	75	3	0
59	75	4	200

59	75	5	300
59	75	6	400
59	85	3	150
59	85	4	300
59	85	5	350
59	85	6	400
59	95	3	200
59	95	4	300
59	95	5	350
59	95	6	400
59	105	3	300
59	105	4	400
59	105	5	400
59	105	6	400
59	115	3	300
59	115	4	400
59	115	5	500
59	115	6	500
90	75	3	0
90	75	4	100
90	75	5	200
90	75	6	350
90	85	3	100
90	85	4	300
90	85	5	400
90	85	6	450
90	95	3	150
90	95	4	300
90	95	5	400
90	95	6	500
90	105	3	200
90	105	4	425
90	105	5	475
90	105	6	500
90	115	3	250
90	115	4	450
90	115	5	600
90	115	6	750
105	75	3	0
105	75	4	50
105	75	5	150
105	75	6	250
105	85	3	50
105	85	4	250
105	85	5	400
105	85	6	500
105	95	3	100
105	95	4	300
105	95	5	425
105	95	6	550
105	105	3	150
105	105	4	450
105	105	5	525
105	105	6	600
105	115	3	200
105	115	4	500
105	115	5	650

105	115	6	850
120	75	3	0
120	75	4	0
120	75	5	50
120	75	6	150
120	85	3	0
120	85	4	250
120	85	5	400
120	85	6	500
120	95	3	50
120	95	4	300
120	95	5	450
120	95	6	600
120	105	3	100
120	105	4	450
120	105	5	550
120	105	6	700
120	115	3	150
120	115	4	550
120	115	5	750
120	115	6	980

Max\_Discharge Data, Name - None  
IDay Flow

Scenario Information for Brownlee

Physical Setting Conditions, Name - Current Ops 97b

Res\_Storage Data, Name - CEQUAL97b

Elevation	Storage
1973.2	432247
1979.8	475263
1983.2	498341
1986.5	521420
1989.8	546048
1993.1	570676
1996.5	596713
1999.8	622750
2003.1	650212
2006.5	677675
2009.8	706573
2013.1	735471
2016.5	765566
2019.8	795660
2023.1	827202
2029.8	891862
2033.1	924980
2036.4	959727
2039.8	994474

2043.1	1030689
2046.4	1066905
2049.8	1104803
2053.1	1142701
2056.4	1182254
2059.7	1221807
2063.1	1263344
2066.4	1304880
2069.7	1348494
2073.06	1392108
2076.4	1437212
2079.7	1482317

Tailwater Data, Name - Current Operations  
Flow                      Elevation

500	0.32
1000	0.38
2000	0.51
3000	0.63
4000	0.75
5000	0.87
6000	1
7000	1.11
8000	1.23
9000	1.35
10000	1.47
11000	1.59
12000	1.7
13000	1.82
14000	1.93
15000	2.05
20000	2.61
25000	3.15
30000	3.67
35000	4.18
40000	4.66
45000	5.13
50000	5.58
55000	6
60000	6.42
65000	6.81
70000	7.18
75000	7.54
80000	7.87
85000	8.19
90000	8.49
95000	8.77
100000	9.03

Ramp\_Curve Data, Name - None  
Flow                      Elevation

Outlet1 Data, Name - None  
Elevation              Flow

Outlet2 Data, Name - Current Operations

Elevation	Flow
2027	0
2033	5250
2037	12500
2044	27750
2050	46000
2077	171300

Outlet3 Data, Name - Brownlee Gates

Elevation	Flow
1976	51500
1990	69000
2010	87500
2027	100500
2050	116000
2079	132500

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops Low

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - Proposed Ops Low

IDay	Data	OrInflow	Dependent
1	8500	False	False
152	8500	False	False
153	6500	True	False
293	6500	True	False
294	9000	False	False
345	9000	False	False
346	8500	False	False
365	8500	False	False

Target\_Elev Data, Name - Proposed Ops Low

IDay	Elevation	HardTarget
1	2076	0
7	2076	0
121	2076	0
189	2076	0
243	2072	0
252	2072	0
365	2076	0

Flood\_Elev Data, Name - H2077 all year

IDay	Elevation
------	-----------

1 2077  
365 2077

Min\_Elev Data, Name - H1976 all year  
IDay Elevation

1 1976  
365 1976

Level\_Fluct Data, Name - LF3 all yr  
IDay Weekday Weekend

	Weekday	Weekend	Hard	Spill
1	3	3	False	False
244	3	3	False	False
365	3	3	False	False

Level\_Rate Data, Name - None  
IDay Rate

Flashboard Data, Name - None  
Elevation Volume Trip Reset

Bypass Data, Name - None  
IDay Data OrInflow Destination

Ramp\_Rate Data, Name - None  
IDay UpRampDay UpRampHour DownRampDay DownRampHour Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 6, Name = Current Operations  
Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 34, Name = Current Operations  
Head Flow Eff

**IPC Proprietary Data**

Turbine Performance, ID = 47, Name = Unit 5 n  
Head Flow Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 5, Name = Unit 5 Current Ops  
gOutput            Eff                    Cap

**IPC Proprietary Data**

Generator Performance Data, ID = 6, Name = Units 1 - 4 Current Ops  
gOutput            Eff                    Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay                Unit

Min\_Unit Data, Name - None  
Head                Flow                    Eff                    CenterLine            Headloss  
GeneratorEff    OpStyle

Scenario Information for Oxbow

Physical Setting Conditions, Name - Current Operations

Res\_Storage Data, Name - CEQUAL RS Curve  
Elevation            Storage

1786.42	38536.44
1789.7	41746
1792.98	44954.86
1796.3	48465
1799.54	51975.63
1802.8	55731
1806.1	59487

Tailwater Data, Name - Current Operations  
Flow                Elevation

1	1490
---	------

Ramp\_Curve Data, Name - None  
Flow                Elevation

Outlet1 Data, Name - None  
Elevation            Flow

Outlet2 Data, Name - Current Operations  
Elevation            Flow

1755	0
1765	25000
1773	50000
1778	55000
1783	100000
1787	125000
1792	150000
1795	175000
1798	200000
1802	225000
1805	250000
1808	275000
1811	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1803

IDay	Elevation	HardTarget
1	1803	0
365	1803	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1805
365	1805

Min\_Elev Data, Name - H1795 all year

IDay	Elevation
1	1795
365	1795

Level\_Fluct Data, Name - LF5 all year

IDay	Weekday	Weekend	Hard	Spill
1	5	5	True	False
365	5	5	True	False



Level\_Rate Data, Name - None  
IDay            Rate

Flashboard Data, Name - None  
Elevation      Volume            Trip            Reset

Bypass Data, Name - Q100 all year  
IDay            Data            OrInflow        Destination

1	100	False	3
365	100	False	3

Ramp\_Rate Data, Name - None  
IDay            UpRampDay        UpRampHour      DownRampDay      DownRampHour      Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal      Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No        Head\_Loss\_ID    Generator\_Per    Turbine\_Perf\_    Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 8, Name = Current Operations  
Unit\_No        Unit\_HL        Common\_HL        Use\_Com2        Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 37, Name = Current Operations  
Head            Flow            Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 7, Name = Current Operations  
gOutput        Eff            Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay            Unit

Min\_Unit Data, Name - None  
Head            Flow            Eff            CenterLine        Headloss  
GeneratorEff    OpStyle

Scenario Information for Hells Canyon

Physical Setting Conditions, Name - PropOps\_HCDamCurve\_grid20ft

Res\_Storage Data, Name - CEQUAL RS Curve 20ft drawdown

Elevation	Storage
-----------	---------

1666.7	135049
1668.3	138532
1669.9	142016
1673.2	148983
1674.9	152701
1676.5	156419
1679.8	163855
1683.1	171642
1686.4	179429
1689.6	187475
1692.9	195521

Tailwater Data, Name - Current Operations

Flow	Elevation
------	-----------

6000	1467.98
7000	1468.91
8000	1469.68
9000	1470.34
12000	1471.91
14000	1472.77
18000	1474.1
20000	1474.89
24000	1476.1
28000	1477.21
30000	1477.74
35000	1478.98
40000	1480.14
44000	1481.01
48000	1481.84
54000	1483.01
60000	1484.09
65000	1484.92
72500	1486.06
75000	1486.41
80000	1487.08
85000	1487.68
90000	1488.24
95000	1488.73
100000	1489.18
105000	1489.57

Ramp\_Curve Data, Name - HC Dam rating curve

Flow	Elevation
------	-----------

0	59
3950	62

4710	62.5
5531	63
6412	63.5
7352	64
9407	65
10520	65.5
11690	66
12920	66.5
14200	67
16940	68
19890	69
23050	70
26430	71
30020	72
33820	73
37830	74
42040	75
46450	76
51070	77
55880	78
60890	79
66100	80
71500	81
77100	82
82900	83
88890	84
95070	85
101400	86
108000	87

Outlet1 Data, Name - None  
Elevation      Flow

Outlet2 Data, Name - Current Operations  
Elevation      Flow

1600	0
1668	168000
1673	195000
1678	226000
1683	255000
1688	284000
1691	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant_Options Data, Name - Current Operations				
Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	2	2

Operating Setting Conditions, Name - OP-1\_Scenariole\_lo

Minimum Data, Name - Proposed Ops low

IDay	Data	OrInflow	Dependent
1	8500	False	False
152	8500	False	False
153	6500	True	False
293	6500	True	False
294	9000	False	False
345	9000	False	False
346	8500	False	False
365	8500	False	False

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1687

IDay	Elevation	HardTarget
1	1687	0
365	1687	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1688
365	1688

Min\_Elev Data, Name - OP-1\_Scenariold\_2

IDay	Elevation
1	1683
59	1683
60	1668
151	1668
152	1683
365	1683

Level\_Fluct Data, Name - OP-1\_Scenariold\_le\_2

IDay	Weekday	Weekend	Hard	Spill
1	5	5	False	False
59	5	5	False	False
60	20	20	False	False
150	20	20	False	False
152	5	5	False	False
365	5	5	False	False

Level\_Rate Data, Name - None

IDay	Rate
------	------

Flashboard Data, Name - None

Elevation	Volume	Trip	Reset
-----------	--------	------	-------

Bypass Data, Name - None

IDay	Data	OrInflow	Destination
------	------	----------	-------------

Ramp\_Rate Data, Name - RR0.5ft March May

IDay	UpRampDay	UpRampHour	DownRampDay	DownRampHour	Type
Peak_Inside					
1	10	1	10	1	Stage
False					
60	10	0.5	10	0.5	Stage
False					
151	10	0.5	10	0.5	Stage
False					
152	4	1	4	1	Stage
False					
273	4	1	4	1	Stage
False					
274	10	1	10	1	Stage
False					
365	10	1	10	1	Stage
False					

Withdrawal Data, Name - None

Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations

Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 11, Name = Current Operations

Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 40, Name = Current Operations

Head Flow Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 9, Name = Current Operations

gOutput Eff Cap

**IPC Proprietary Data**

Maintenance Data, Name - None

IDay Unit

Min\_Unit Data, Name - None

Head Flow Eff CenterLine Headloss  
GeneratorEff OpStyle



Complete Scenario Data for Scenario—OP-1\_Scenario1f\_average written out on 11/03/2004 9:55:31 AM

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Complete Scenario Data for Scenario - OP-1\_Scenariolf\_average  
 Written out on 11/03/2004 9:55:31 AM

System Misc. Name - Proposed Ops Average					
Load_Shape_ID	CarryOver	MaxPeak	ForecastDays	ForecastAcr	
Fall_Chinook_	Flood_Control	Max_Discharge			
8	False	False	3	1	15
4	0				

Load_Shape Data, Name - FP01 SP HL pricing			
IMonth	Period	Duration	Price
1	1	6	
1	2	0	
1	3	6	
1	4	5	
1	5	5	
1	6	0	
1	7	2	
1	8	7	
1	9	6	
1	10	4	
1	11	5	
1	12	2	
2	1	6	
2	2	0	
2	3	6	
2	4	5	
2	5	5	
2	6	0	
2	7	2	
2	8	7	
2	9	6	
2	10	4	
2	11	5	
2	12	2	
3	1	6	
3	2	0	
3	3	6	
3	4	5	
3	5	5	
3	6	0	
3	7	2	
3	8	7	
3	9	6	
3	10	4	
3	11	5	
3	12	2	
4	1	6	
4	2	0	
4	3	8	
4	4	0	
4	5	8	
4	6	0	
4	7	2	

4	8	7
4	9	8
4	10	0
4	11	7
4	12	2
5	1	6
5	2	0
5	3	8
5	4	0
5	5	8
5	6	0
5	7	2
5	8	7
5	9	8
5	10	0
5	11	7
5	12	2
6	1	6
6	2	0
6	3	8
6	4	0
6	5	8
6	6	0
6	7	2
6	8	7
6	9	8
6	10	0
6	11	7
6	12	2
7	1	6
7	2	0
7	3	16
7	4	0
7	5	0
7	6	0
7	7	2
7	8	8
7	9	14
7	10	0
7	11	0
7	12	2
8	1	6
8	2	0
8	3	16
8	4	0
8	5	0
8	6	0
8	7	2
8	8	8
8	9	14
8	10	0
8	11	0
8	12	2
9	1	6
9	2	0
9	3	16
9	4	0

9	5	0
9	6	0
9	7	2
9	8	8
9	9	14
9	10	0
9	11	0
9	12	2
10	1	6
10	2	0
10	3	6
10	4	4
10	5	6
10	6	0
10	7	2
10	8	7
10	9	6
10	10	4
10	11	5
10	12	2
11	1	6
11	2	0
11	3	6
11	4	4
11	5	6
11	6	0
11	7	2
11	8	7
11	9	6
11	10	4
11	11	5
11	12	2
12	1	6
12	2	0
12	3	6
12	4	4
12	5	6
12	6	0
12	7	2
12	8	7
12	9	6
12	10	4
12	11	5
12	12	2

Fall\_Chinook Data, Name - Proposed Ops Average

Draw_Start	Refill_Start	Refill_End	Max_Discharge	Minimum_Max
Maximum_Max	Target_Elevat	Refill_Elevat	Allow_Peak	
252	294	345	11500	0
0	2076	False		0

Flood\_Control Data, Name - RC V2000

IDay	Dalles_Foreca	Brownlee_Fore	Req_Volume
59	75	3	0
59	75	4	200

59	75	5	300
59	75	6	400
59	85	3	150
59	85	4	300
59	85	5	350
59	85	6	400
59	95	3	200
59	95	4	300
59	95	5	350
59	95	6	400
59	105	3	300
59	105	4	400
59	105	5	400
59	105	6	400
59	115	3	300
59	115	4	400
59	115	5	500
59	115	6	500
90	75	3	0
90	75	4	100
90	75	5	200
90	75	6	350
90	85	3	100
90	85	4	300
90	85	5	400
90	85	6	450
90	95	3	150
90	95	4	300
90	95	5	400
90	95	6	500
90	105	3	200
90	105	4	425
90	105	5	475
90	105	6	500
90	115	3	250
90	115	4	450
90	115	5	600
90	115	6	750
105	75	3	0
105	75	4	50
105	75	5	150
105	75	6	250
105	85	3	50
105	85	4	250
105	85	5	400
105	85	6	500
105	95	3	100
105	95	4	300
105	95	5	425
105	95	6	550
105	105	3	150
105	105	4	450
105	105	5	525
105	105	6	600
105	115	3	200
105	115	4	500
105	115	5	650

105	115	6	850
120	75	3	0
120	75	4	0
120	75	5	50
120	75	6	150
120	85	3	0
120	85	4	250
120	85	5	400
120	85	6	500
120	95	3	50
120	95	4	300
120	95	5	450
120	95	6	600
120	105	3	100
120	105	4	450
120	105	5	550
120	105	6	700
120	115	3	150
120	115	4	550
120	115	5	750
120	115	6	980

Max\_Discharge Data, Name - None  
IDay Flow

Scenario Information for Brownlee

Physical Setting Conditions, Name - Current Ops 97b

Res\_Storage Data, Name - CEQUAL97b

Elevation	Storage
1973.2	432247
1979.8	475263
1983.2	498341
1986.5	521420
1989.8	546048
1993.1	570676
1996.5	596713
1999.8	622750
2003.1	650212
2006.5	677675
2009.8	706573
2013.1	735471
2016.5	765566
2019.8	795660
2023.1	827202
2029.8	891862
2033.1	924980
2036.4	959727
2039.8	994474

2043.1	1030689
2046.4	1066905
2049.8	1104803
2053.1	1142701
2056.4	1182254
2059.7	1221807
2063.1	1263344
2066.4	1304880
2069.7	1348494
2073.06	1392108
2076.4	1437212
2079.7	1482317

Tailwater Data, Name - Current Operations  
Flow                      Elevation

500	0.32
1000	0.38
2000	0.51
3000	0.63
4000	0.75
5000	0.87
6000	1
7000	1.11
8000	1.23
9000	1.35
10000	1.47
11000	1.59
12000	1.7
13000	1.82
14000	1.93
15000	2.05
20000	2.61
25000	3.15
30000	3.67
35000	4.18
40000	4.66
45000	5.13
50000	5.58
55000	6
60000	6.42
65000	6.81
70000	7.18
75000	7.54
80000	7.87
85000	8.19
90000	8.49
95000	8.77
100000	9.03

Ramp\_Curve Data, Name - None  
Flow                      Elevation

Outlet1 Data, Name - None  
Elevation              Flow

Outlet2 Data, Name - Current Operations

Elevation	Flow
2027	0
2033	5250
2037	12500
2044	27750
2050	46000
2077	171300

Outlet3 Data, Name - Brownlee Gates

Elevation	Flow
1976	51500
1990	69000
2010	87500
2027	100500
2050	116000
2079	132500

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops Average

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - Proposed Ops Average

IDay	Data	OrInflow	Dependent
1	10500	False	False
152	10500	False	False
153	6500	True	False
293	6500	True	False
294	11500	False	False
345	11500	False	False
346	10500	False	False
365	10500	False	False

Target\_Elev Data, Name - Proposed Ops Average

IDay	Elevation	HardTarget
1	2076	0
7	2076	0
158	2069	0
189	2076	0
243	2069	0
252	2069	0
365	2076	0

Flood\_Elev Data, Name - H2077 all year

IDay	Elevation
------	-----------

1 2077  
365 2077

Min\_Elev Data, Name - H1976 all year  
IDay Elevation

1 1976  
365 1976

Level\_Fluct Data, Name - LF3 all yr  
IDay Weekday Weekend

	Weekday	Weekend	Hard	Spill
1	3	3	False	False
244	3	3	False	False
365	3	3	False	False

Level\_Rate Data, Name - None  
IDay Rate

Flashboard Data, Name - None  
Elevation Volume Trip Reset

Bypass Data, Name - None  
IDay Data OrInflow Destination

Ramp\_Rate Data, Name - None  
IDay UpRampDay UpRampHour DownRampDay DownRampHour Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 6, Name = Current Operations  
Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 34, Name = Current Operations  
Head Flow Eff

**IPC Proprietary Data**

Turbine Performance, ID = 47, Name = Unit 5 n  
Head Flow Eff



**IPC Proprietary Data**

Generator Performance Data, ID = 5, Name = Unit 5 Current Ops  
gOutput            Eff                    Cap

**IPC Proprietary Data**

Generator Performance Data, ID = 6, Name = Units 1 - 4 Current Ops  
gOutput            Eff                    Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay                Unit

Min\_Unit Data, Name - None  
Head                Flow                    Eff                    CenterLine            Headloss  
GeneratorEff    OpStyle

Scenario Information for Oxbow

Physical Setting Conditions, Name - Current Operations

Res\_Storage Data, Name - CEQUAL RS Curve

Elevation	Storage
1786.42	38536.44
1789.7	41746
1792.98	44954.86
1796.3	48465
1799.54	51975.63
1802.8	55731
1806.1	59487

Tailwater Data, Name - Current Operations

Flow	Elevation
1	1490

Ramp\_Curve Data, Name - None

Flow	Elevation
------	-----------

Outlet1 Data, Name - None

Elevation	Flow
-----------	------

Outlet2 Data, Name - Current Operations

Elevation	Flow
-----------	------

1755	0
1765	25000
1773	50000
1778	55000
1783	100000
1787	125000
1792	150000
1795	175000
1798	200000
1802	225000
1805	250000
1808	275000
1811	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1803

IDay	Elevation	HardTarget
1	1803	0
365	1803	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1805
365	1805

Min\_Elev Data, Name - H1795 all year

IDay	Elevation
1	1795
365	1795

Level\_Fluct Data, Name - LF5 all year

IDay	Weekday	Weekend	Hard	Spill
1	5	5	True	False
365	5	5	True	False

Level\_Rate Data, Name - None  
IDay Rate

Flashboard Data, Name - None  
Elevation Volume Trip Reset

Bypass Data, Name - Q100 all year  
IDay Data OrInflow Destination

1	100	False	3
365	100	False	3

Ramp\_Rate Data, Name - None  
IDay UpRampDay UpRampHour DownRampDay DownRampHour Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 8, Name = Current Operations  
Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 37, Name = Current Operations  
Head Flow Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 7, Name = Current Operations  
gOutput Eff Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay Unit

Min\_Unit Data, Name - None  
Head Flow Eff CenterLine Headloss  
GeneratorEff OpStyle

Scenario Information for Hells Canyon

Physical Setting Conditions, Name - PropOps\_HCDamCurve\_grid20ft

Res\_Storage Data, Name - CEQUAL RS Curve 20ft drawdown

Elevation            Storage

1666.7	135049
1668.3	138532
1669.9	142016
1673.2	148983
1674.9	152701
1676.5	156419
1679.8	163855
1683.1	171642
1686.4	179429
1689.6	187475
1692.9	195521

Tailwater Data, Name - Current Operations

Flow                Elevation

6000	1467.98
7000	1468.91
8000	1469.68
9000	1470.34
12000	1471.91
14000	1472.77
18000	1474.1
20000	1474.89
24000	1476.1
28000	1477.21
30000	1477.74
35000	1478.98
40000	1480.14
44000	1481.01
48000	1481.84
54000	1483.01
60000	1484.09
65000	1484.92
72500	1486.06
75000	1486.41
80000	1487.08
85000	1487.68
90000	1488.24
95000	1488.73
100000	1489.18
105000	1489.57

Ramp\_Curve Data, Name - HC Dam rating curve

Flow                Elevation

0	59
3950	62

4710	62.5
5531	63
6412	63.5
7352	64
9407	65
10520	65.5
11690	66
12920	66.5
14200	67
16940	68
19890	69
23050	70
26430	71
30020	72
33820	73
37830	74
42040	75
46450	76
51070	77
55880	78
60890	79
66100	80
71500	81
77100	82
82900	83
88890	84
95070	85
101400	86
108000	87

Outlet1 Data, Name - None  
Elevation      Flow

Outlet2 Data, Name - Current Operations  
Elevation      Flow

1600	0
1668	168000
1673	195000
1678	226000
1683	255000
1688	284000
1691	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant_Options Data, Name - Current Operations				
Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	2	2

Operating Setting Conditions, Name - OP-1\_Scenariolf\_average

Minimum Data, Name - Proposed Ops Average

IDay	Data	OrInflow	Dependent
1	10500	False	False
152	10500	False	False
153	6500	True	False
293	6500	True	False
294	11500	False	False
345	11500	False	False
346	10500	False	False
365	10500	False	False

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1687

IDay	Elevation	HardTarget
1	1687	0
365	1687	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1688
365	1688

Min\_Elev Data, Name - 1668ft all year

IDay	Elevation
1	1668
365	1668

Level\_Fluct Data, Name - LF20 all year

IDay	Weekday	Weekend	Hard	Spill
1	20	20	False	False
365	20	20	False	False

Level\_Rate Data, Name - None

IDay	Rate
------	------

Flashboard Data, Name - None

Elevation	Volume	Trip	Reset
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Bypass Data, Name - None

IDay	Data	OrInflow	Destination
------	------	----------	-------------

Ramp\_Rate Data, Name - OP-1\_Scenariolf

IDay	UpRampDay	UpRampHour	DownRampDay	DownRampHour	Type
1	2	0.5	2	0.5	Stage
False					

60	2	0.167	2	0.167	Stage
False					
151	2	0.167	2	0.167	Stage
False					
152	2	0.5	2	0.5	Stage
False					
273	2	0.5	2	0.5	Stage
False					
274	2	0.5	2	0.5	Stage
False					
365	2	0.5	2	0.5	Stage
False					

Withdrawal Data, Name - None  
 Withdrawal      Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
 Unit\_No            Head\_Loss\_ID    Generator\_Per    Turbine\_Perf\_    Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 11, Name = Current Operations  
 Unit\_No            Unit\_HL            Common\_HL            Use\_Com2            Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 40, Name = Current Operations  
 Head                    Flow                    Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 9, Name = Current Operations  
 gOutput            Eff                    Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
 IDay                    Unit

Min\_Unit Data, Name - None  
 Head                    Flow                    Eff                    CenterLine            Headloss  
 GeneratorEff    OpStyle





Complete Scenario Data for Scenario—OP-1\_Scenario1f\_hi written out on 11/03/2004 9:55:58 AM

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Complete Scenario Data for Scenario - OP-1\_Scenariolf\_hi  
 Written out on 11/03/2004 9:55:58 AM

System Misc. Name - Proposed	Ops High	ForecastDays	ForecastAcr
Load_Shape_ID CarryOver	MaxPeak		
Fall_Chinook_ Flood_Control	Max_Discharge		
8	False	3	1
4	0		16

Load_Shape Data, Name - FP01	SP HL pricing	Price
IMonth	Period	Duration
1	1	6
1	2	0
1	3	6
1	4	5
1	5	5
1	6	0
1	7	2
1	8	7
1	9	6
1	10	4
1	11	5
1	12	2
2	1	6
2	2	0
2	3	6
2	4	5
2	5	5
2	6	0
2	7	2
2	8	7
2	9	6
2	10	4
2	11	5
2	12	2
3	1	6
3	2	0
3	3	6
3	4	5
3	5	5
3	6	0
3	7	2
3	8	7
3	9	6
3	10	4
3	11	5
3	12	2
4	1	6
4	2	0
4	3	8
4	4	0
4	5	8
4	6	0
4	7	2

4	8	7
4	9	8
4	10	0
4	11	7
4	12	2
5	1	6
5	2	0
5	3	8
5	4	0
5	5	8
5	6	0
5	7	2
5	8	7
5	9	8
5	10	0
5	11	7
5	12	2
6	1	6
6	2	0
6	3	8
6	4	0
6	5	8
6	6	0
6	7	2
6	8	7
6	9	8
6	10	0
6	11	7
6	12	2
7	1	6
7	2	0
7	3	16
7	4	0
7	5	0
7	6	0
7	7	2
7	8	8
7	9	14
7	10	0
7	11	0
7	12	2
8	1	6
8	2	0
8	3	16
8	4	0
8	5	0
8	6	0
8	7	2
8	8	8
8	9	14
8	10	0
8	11	0
8	12	2
9	1	6
9	2	0
9	3	16
9	4	0

9	5	0
9	6	0
9	7	2
9	8	8
9	9	14
9	10	0
9	11	0
9	12	2
10	1	6
10	2	0
10	3	6
10	4	4
10	5	6
10	6	0
10	7	2
10	8	7
10	9	6
10	10	4
10	11	5
10	12	2
11	1	6
11	2	0
11	3	6
11	4	4
11	5	6
11	6	0
11	7	2
11	8	7
11	9	6
11	10	4
11	11	5
11	12	2
12	1	6
12	2	0
12	3	6
12	4	4
12	5	6
12	6	0
12	7	2
12	8	7
12	9	6
12	10	4
12	11	5
12	12	2

Fall\_Chinook Data, Name - Proposed Ops High

Draw_Start	Refill_Start	Refill_End	Max_Discharge	Minimum_Max
Maximum_Max	Target_Elevat	Refill_Elevat	Allow_Peak	
252	294	345	13000	0
0	2076	False		0

Flood\_Control Data, Name - RC V2000

IDay	Dalles_Foreca	Brownlee_Fore	Req_Volume
59	75	3	0
59	75	4	200

59	75	5	300
59	75	6	400
59	85	3	150
59	85	4	300
59	85	5	350
59	85	6	400
59	95	3	200
59	95	4	300
59	95	5	350
59	95	6	400
59	105	3	300
59	105	4	400
59	105	5	400
59	105	6	400
59	115	3	300
59	115	4	400
59	115	5	500
59	115	6	500
90	75	3	0
90	75	4	100
90	75	5	200
90	75	6	350
90	85	3	100
90	85	4	300
90	85	5	400
90	85	6	450
90	95	3	150
90	95	4	300
90	95	5	400
90	95	6	500
90	105	3	200
90	105	4	425
90	105	5	475
90	105	6	500
90	115	3	250
90	115	4	450
90	115	5	600
90	115	6	750
105	75	3	0
105	75	4	50
105	75	5	150
105	75	6	250
105	85	3	50
105	85	4	250
105	85	5	400
105	85	6	500
105	95	3	100
105	95	4	300
105	95	5	425
105	95	6	550
105	105	3	150
105	105	4	450
105	105	5	525
105	105	6	600
105	115	3	200
105	115	4	500
105	115	5	650

105	115	6	850
120	75	3	0
120	75	4	0
120	75	5	50
120	75	6	150
120	85	3	0
120	85	4	250
120	85	5	400
120	85	6	500
120	95	3	50
120	95	4	300
120	95	5	450
120	95	6	600
120	105	3	100
120	105	4	450
120	105	5	550
120	105	6	700
120	115	3	150
120	115	4	550
120	115	5	750
120	115	6	980

Max\_Discharge Data, Name - None  
IDay Flow

Scenario Information for Brownlee

Physical Setting Conditions, Name - Current Ops 97b

Res\_Storage Data, Name - CEQUAL97b

Elevation	Storage
1973.2	432247
1979.8	475263
1983.2	498341
1986.5	521420
1989.8	546048
1993.1	570676
1996.5	596713
1999.8	622750
2003.1	650212
2006.5	677675
2009.8	706573
2013.1	735471
2016.5	765566
2019.8	795660
2023.1	827202
2029.8	891862
2033.1	924980
2036.4	959727
2039.8	994474

2043.1	1030689
2046.4	1066905
2049.8	1104803
2053.1	1142701
2056.4	1182254
2059.7	1221807
2063.1	1263344
2066.4	1304880
2069.7	1348494
2073.06	1392108
2076.4	1437212
2079.7	1482317

Tailwater Data, Name - Current Operations  
Flow                      Elevation

500	0.32
1000	0.38
2000	0.51
3000	0.63
4000	0.75
5000	0.87
6000	1
7000	1.11
8000	1.23
9000	1.35
10000	1.47
11000	1.59
12000	1.7
13000	1.82
14000	1.93
15000	2.05
20000	2.61
25000	3.15
30000	3.67
35000	4.18
40000	4.66
45000	5.13
50000	5.58
55000	6
60000	6.42
65000	6.81
70000	7.18
75000	7.54
80000	7.87
85000	8.19
90000	8.49
95000	8.77
100000	9.03

Ramp\_Curve Data, Name - None  
Flow                      Elevation

Outlet1 Data, Name - None  
Elevation              Flow



Outlet2 Data, Name - Current Operations

Elevation	Flow
2027	0
2033	5250
2037	12500
2044	27750
2050	46000
2077	171300

Outlet3 Data, Name - Brownlee Gates

Elevation	Flow
1976	51500
1990	69000
2010	87500
2027	100500
2050	116000
2079	132500

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops High

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - Proposed Ops High

IDay	Data	OrInflow	Dependent
1	12000	False	False
152	12000	False	False
153	6500	True	False
293	6500	True	False
294	13000	False	False
345	13000	False	False
346	12000	False	False
365	12000	False	False

Target\_Elev Data, Name - Proposed Ops High

IDay	Elevation	HardTarget
1	2076	0
7	2076	0
189	2076	0
243	2059	0
252	2059	0
253	2076	0
365	2076	0

Flood\_Elev Data, Name - H2077 all year

IDay	Elevation
------	-----------

1 2077  
365 2077

Min\_Elev Data, Name - H1976 all year  
IDay Elevation

1 1976  
365 1976

Level\_Fluct Data, Name - LF3 all yr  
IDay Weekday Weekend

			Hard	Spill
1	3	3	False	False
244	3	3	False	False
365	3	3	False	False

Level\_Rate Data, Name - None  
IDay Rate

Flashboard Data, Name - None  
Elevation Volume Trip Reset

Bypass Data, Name - None  
IDay Data OrInflow Destination

Ramp\_Rate Data, Name - None  
IDay UpRampDay UpRampHour DownRampDay DownRampHour Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 6, Name = Current Operations  
Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 34, Name = Current Operations  
Head Flow Eff

**IPC Proprietary Data**

Turbine Performance, ID = 47, Name = Unit 5 n  
Head Flow Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 5, Name = Unit 5 Current Ops  
gOutput            Eff                    Cap

**IPC Proprietary Data**

Generator Performance Data, ID = 6, Name = Units 1 - 4 Current Ops  
gOutput            Eff                    Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay                Unit

Min\_Unit Data, Name - None  
Head                Flow                    Eff                    CenterLine            Headloss  
GeneratorEff    OpStyle

Scenario Information for Oxbow

Physical Setting Conditions, Name - Current Operations

Res\_Storage Data, Name - CEQUAL RS Curve  
Elevation            Storage

1786.42	38536.44
1789.7	41746
1792.98	44954.86
1796.3	48465
1799.54	51975.63
1802.8	55731
1806.1	59487

Tailwater Data, Name - Current Operations  
Flow                Elevation

1	1490
---	------

Ramp\_Curve Data, Name - None  
Flow                Elevation

Outlet1 Data, Name - None  
Elevation            Flow

Outlet2 Data, Name - Current Operations  
Elevation            Flow

1755	0
1765	25000
1773	50000
1778	55000
1783	100000
1787	125000
1792	150000
1795	175000
1798	200000
1802	225000
1805	250000
1808	275000
1811	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1803

IDay	Elevation	HardTarget
1	1803	0
365	1803	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1805
365	1805

Min\_Elev Data, Name - H1795 all year

IDay	Elevation
1	1795
365	1795

Level\_Fluct Data, Name - LF5 all year

IDay	Weekday	Weekend	Hard	Spill
1	5	5	True	False
365	5	5	True	False

Level\_Rate Data, Name - None  
IDay            Rate

Flashboard Data, Name - None  
Elevation      Volume            Trip            Reset

Bypass Data, Name - Q100 all year  
IDay            Data            OrInflow        Destination  
1                100            False            3  
365              100            False            3

Ramp\_Rate Data, Name - None  
IDay            UpRampDay        UpRampHour      DownRampDay      DownRampHour      Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal      Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No        Head\_Loss\_ID    Generator\_Per    Turbine\_Perf\_    Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 8, Name = Current Operations  
Unit\_No        Unit\_HL        Common\_HL        Use\_Com2        Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 37, Name = Current Operations  
Head            Flow            Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 7, Name = Current Operations  
gOutput        Eff            Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay            Unit

Min\_Unit Data, Name - None  
Head            Flow            Eff            CenterLine        Headloss  
GeneratorEff    OpStyle

Scenario Information for Hells Canyon

Physical Setting Conditions, Name - PropOps\_HCDamCurve\_grid20ft

Res\_Storage Data, Name - CEQUAL RS Curve 20ft drawdown

Elevation	Storage
1666.7	135049
1668.3	138532
1669.9	142016
1673.2	148983
1674.9	152701
1676.5	156419
1679.8	163855
1683.1	171642
1686.4	179429
1689.6	187475
1692.9	195521

Tailwater Data, Name - Current Operations

Flow	Elevation
6000	1467.98
7000	1468.91
8000	1469.68
9000	1470.34
12000	1471.91
14000	1472.77
18000	1474.1
20000	1474.89
24000	1476.1
28000	1477.21
30000	1477.74
35000	1478.98
40000	1480.14
44000	1481.01
48000	1481.84
54000	1483.01
60000	1484.09
65000	1484.92
72500	1486.06
75000	1486.41
80000	1487.08
85000	1487.68
90000	1488.24
95000	1488.73
100000	1489.18
105000	1489.57

Ramp\_Curve Data, Name - HC Dam rating curve

Flow	Elevation
0	59
3950	62

4710	62.5
5531	63
6412	63.5
7352	64
9407	65
10520	65.5
11690	66
12920	66.5
14200	67
16940	68
19890	69
23050	70
26430	71
30020	72
33820	73
37830	74
42040	75
46450	76
51070	77
55880	78
60890	79
66100	80
71500	81
77100	82
82900	83
88890	84
95070	85
101400	86
108000	87

Outlet1 Data, Name - None  
Elevation      Flow

Outlet2 Data, Name - Current Operations  
Elevation      Flow

1600	0
1668	168000
1673	195000
1678	226000
1683	255000
1688	284000
1691	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant_Options Data, Name - Current Operations				
Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	2	2

Operating Setting Conditions, Name - OP-1\_Scenariolf\_hi

Minimum Data, Name - Proposed Ops High

IDay	Data	OrInflow	Dependent
1	12000	False	False
152	12000	False	False
153	6500	True	False
293	6500	True	False
294	13000	False	False
345	13000	False	False
346	12000	False	False
365	12000	False	False

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1687

IDay	Elevation	HardTarget
1	1687	0
365	1687	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1688
365	1688

Min\_Elev Data, Name - 1668ft all year

IDay	Elevation
1	1668
365	1668

Level\_Fluct Data, Name - LF20 all year

IDay	Weekday	Weekend	Hard	Spill
1	20	20	False	False
365	20	20	False	False

Level\_Rate Data, Name - None

IDay	Rate
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Flashboard Data, Name - None

Elevation	Volume	Trip	Reset
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Bypass Data, Name - None

IDay	Data	OrInflow	Destination
------	------	----------	-------------

Ramp\_Rate Data, Name - OP-1\_Scenariolf

IDay	UpRampDay	UpRampHour	DownRampDay	DownRampHour	Type
1	2	0.5	2	0.5	Stage
False					



60	2	0.167	2	0.167	Stage
False					
151	2	0.167	2	0.167	Stage
False					
152	2	0.5	2	0.5	Stage
False					
273	2	0.5	2	0.5	Stage
False					
274	2	0.5	2	0.5	Stage
False					
365	2	0.5	2	0.5	Stage
False					

Withdrawal Data, Name - None  
 Withdrawal      Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
 Unit\_No          Head\_Loss\_ID    Generator\_Per    Turbine\_Perf\_    Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 11, Name = Current Operations  
 Unit\_No          Unit\_HL            Common\_HL          Use\_Com2            Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 40, Name = Current Operations  
 Head              Flow                Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 9, Name = Current Operations  
 gOutput          Eff                  Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
 IDay              Unit

Min\_Unit Data, Name - None  
 Head              Flow                Eff                  CenterLine          Headloss  
 GeneratorEff    OpStyle



Complete Scenario Data for Scenario—OP-1\_Scenario1f\_lo written out on 11/03/2004 9:56:09 AM

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Complete Scenario Data for Scenario - OP-1\_Scenariolf\_lo  
 Written out on 11/03/2004 9:56:09 AM

System Misc. Name - Proposed Ops Low					
Load_Shape_ID	CarryOver	MaxPeak	ForecastDays	ForecastAcr	
Fall_Chinook_	Flood_Control	Max_Discharge			
8	False	False	3	1	14
4	0				

Load_Shape Data, Name - FP01 SP HL pricing			
IMonth	Period	Duration	Price
1	1	6	
1	2	0	
1	3	6	
1	4	5	
1	5	5	
1	6	0	
1	7	2	
1	8	7	
1	9	6	
1	10	4	
1	11	5	
1	12	2	
2	1	6	
2	2	0	
2	3	6	
2	4	5	
2	5	5	
2	6	0	
2	7	2	
2	8	7	
2	9	6	
2	10	4	
2	11	5	
2	12	2	
3	1	6	
3	2	0	
3	3	6	
3	4	5	
3	5	5	
3	6	0	
3	7	2	
3	8	7	
3	9	6	
3	10	4	
3	11	5	
3	12	2	
4	1	6	
4	2	0	
4	3	8	
4	4	0	
4	5	8	
4	6	0	
4	7	2	

4	8	7
4	9	8
4	10	0
4	11	7
4	12	2
5	1	6
5	2	0
5	3	8
5	4	0
5	5	8
5	6	0
5	7	2
5	8	7
5	9	8
5	10	0
5	11	7
5	12	2
6	1	6
6	2	0
6	3	8
6	4	0
6	5	8
6	6	0
6	7	2
6	8	7
6	9	8
6	10	0
6	11	7
6	12	2
7	1	6
7	2	0
7	3	16
7	4	0
7	5	0
7	6	0
7	7	2
7	8	8
7	9	14
7	10	0
7	11	0
7	12	2
8	1	6
8	2	0
8	3	16
8	4	0
8	5	0
8	6	0
8	7	2
8	8	8
8	9	14
8	10	0
8	11	0
8	12	2
9	1	6
9	2	0
9	3	16
9	4	0

9	5	0
9	6	0
9	7	2
9	8	8
9	9	14
9	10	0
9	11	0
9	12	2
10	1	6
10	2	0
10	3	6
10	4	4
10	5	6
10	6	0
10	7	2
10	8	7
10	9	6
10	10	4
10	11	5
10	12	2
11	1	6
11	2	0
11	3	6
11	4	4
11	5	6
11	6	0
11	7	2
11	8	7
11	9	6
11	10	4
11	11	5
11	12	2
12	1	6
12	2	0
12	3	6
12	4	4
12	5	6
12	6	0
12	7	2
12	8	7
12	9	6
12	10	4
12	11	5
12	12	2

Fall\_Chinook Data, Name - Proposed Ops Low

Draw_Start	Refill_Start	Refill_End	Max_Discharge	Minimum_Max
Maximum_Max	Target_Elevat	Refill_Elevat	Allow_Peak	
252	294	345	9000	0
0	2076	False		0

Flood\_Control Data, Name - RC V2000

IDay	Dalles_Foreca	Brownlee_Fore	Req_Volume
59	75	3	0
59	75	4	200

59	75	5	300
59	75	6	400
59	85	3	150
59	85	4	300
59	85	5	350
59	85	6	400
59	95	3	200
59	95	4	300
59	95	5	350
59	95	6	400
59	105	3	300
59	105	4	400
59	105	5	400
59	105	6	400
59	115	3	300
59	115	4	400
59	115	5	500
59	115	6	500
90	75	3	0
90	75	4	100
90	75	5	200
90	75	6	350
90	85	3	100
90	85	4	300
90	85	5	400
90	85	6	450
90	95	3	150
90	95	4	300
90	95	5	400
90	95	6	500
90	105	3	200
90	105	4	425
90	105	5	475
90	105	6	500
90	115	3	250
90	115	4	450
90	115	5	600
90	115	6	750
105	75	3	0
105	75	4	50
105	75	5	150
105	75	6	250
105	85	3	50
105	85	4	250
105	85	5	400
105	85	6	500
105	95	3	100
105	95	4	300
105	95	5	425
105	95	6	550
105	105	3	150
105	105	4	450
105	105	5	525
105	105	6	600
105	115	3	200
105	115	4	500
105	115	5	650



105	115	6	850
120	75	3	0
120	75	4	0
120	75	5	50
120	75	6	150
120	85	3	0
120	85	4	250
120	85	5	400
120	85	6	500
120	95	3	50
120	95	4	300
120	95	5	450
120	95	6	600
120	105	3	100
120	105	4	450
120	105	5	550
120	105	6	700
120	115	3	150
120	115	4	550
120	115	5	750
120	115	6	980

Max\_Discharge Data, Name - None  
IDay Flow

Scenario Information for Brownlee

Physical Setting Conditions, Name - Current Ops 97b

Res\_Storage Data, Name - CEQUAL97b

Elevation	Storage
1973.2	432247
1979.8	475263
1983.2	498341
1986.5	521420
1989.8	546048
1993.1	570676
1996.5	596713
1999.8	622750
2003.1	650212
2006.5	677675
2009.8	706573
2013.1	735471
2016.5	765566
2019.8	795660
2023.1	827202
2029.8	891862
2033.1	924980
2036.4	959727
2039.8	994474

2043.1	1030689
2046.4	1066905
2049.8	1104803
2053.1	1142701
2056.4	1182254
2059.7	1221807
2063.1	1263344
2066.4	1304880
2069.7	1348494
2073.06	1392108
2076.4	1437212
2079.7	1482317

Tailwater Data, Name - Current Operations  
Flow                      Elevation

500	0.32
1000	0.38
2000	0.51
3000	0.63
4000	0.75
5000	0.87
6000	1
7000	1.11
8000	1.23
9000	1.35
10000	1.47
11000	1.59
12000	1.7
13000	1.82
14000	1.93
15000	2.05
20000	2.61
25000	3.15
30000	3.67
35000	4.18
40000	4.66
45000	5.13
50000	5.58
55000	6
60000	6.42
65000	6.81
70000	7.18
75000	7.54
80000	7.87
85000	8.19
90000	8.49
95000	8.77
100000	9.03

Ramp\_Curve Data, Name - None  
Flow                      Elevation

Outlet1 Data, Name - None  
Elevation              Flow

Outlet2 Data, Name - Current Operations

Elevation	Flow
2027	0
2033	5250
2037	12500
2044	27750
2050	46000
2077	171300

Outlet3 Data, Name - Brownlee Gates

Elevation	Flow
1976	51500
1990	69000
2010	87500
2027	100500
2050	116000
2079	132500

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops Low

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - Proposed Ops Low

IDay	Data	OrInflow	Dependent
1	8500	False	False
152	8500	False	False
153	6500	True	False
293	6500	True	False
294	9000	False	False
345	9000	False	False
346	8500	False	False
365	8500	False	False

Target\_Elev Data, Name - Proposed Ops Low

IDay	Elevation	HardTarget
1	2076	0
7	2076	0
121	2076	0
189	2076	0
243	2072	0
252	2072	0
365	2076	0

Flood\_Elev Data, Name - H2077 all year

IDay	Elevation
------	-----------

1 2077  
365 2077

Min\_Elev Data, Name - H1976 all year  
IDay Elevation

1 1976  
365 1976

Level\_Fluct Data, Name - LF3 all yr  
IDay Weekday Weekend

	Weekday	Weekend	Hard	Spill
1	3	3	False	False
244	3	3	False	False
365	3	3	False	False

Level\_Rate Data, Name - None  
IDay Rate

Flashboard Data, Name - None  
Elevation Volume Trip Reset

Bypass Data, Name - None  
IDay Data OrInflow Destination

Ramp\_Rate Data, Name - None  
IDay UpRampDay UpRampHour DownRampDay DownRampHour Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 6, Name = Current Operations  
Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 34, Name = Current Operations  
Head Flow Eff

**IPC Proprietary Data**

Turbine Performance, ID = 47, Name = Unit 5 n  
Head Flow Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 5, Name = Unit 5 Current Ops  
gOutput            Eff                    Cap

**IPC Proprietary Data**

Generator Performance Data, ID = 6, Name = Units 1 - 4 Current Ops  
gOutput            Eff                    Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay                Unit

Min\_Unit Data, Name - None  
Head                Flow                    Eff                    CenterLine            Headloss  
GeneratorEff    OpStyle

Scenario Information for Oxbow

Physical Setting Conditions, Name - Current Operations

Res\_Storage Data, Name - CEQUAL RS Curve  
Elevation            Storage

1786.42	38536.44
1789.7	41746
1792.98	44954.86
1796.3	48465
1799.54	51975.63
1802.8	55731
1806.1	59487

Tailwater Data, Name - Current Operations  
Flow                Elevation

1	1490
---	------

Ramp\_Curve Data, Name - None  
Flow                Elevation

Outlet1 Data, Name - None  
Elevation            Flow

Outlet2 Data, Name - Current Operations  
Elevation            Flow

1755	0
1765	25000
1773	50000
1778	55000
1783	100000
1787	125000
1792	150000
1795	175000
1798	200000
1802	225000
1805	250000
1808	275000
1811	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1803

IDay	Elevation	HardTarget
1	1803	0
365	1803	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1805
365	1805

Min\_Elev Data, Name - H1795 all year

IDay	Elevation
1	1795
365	1795

Level\_Fluct Data, Name - LF5 all year

IDay	Weekday	Weekend	Hard	Spill
1	5	5	True	False
365	5	5	True	False

Level\_Rate Data, Name - None  
IDay            Rate

Flashboard Data, Name - None  
Elevation      Volume            Trip            Reset

Bypass Data, Name - Q100 all year  
IDay            Data            OrInflow        Destination

1	100	False	3
365	100	False	3

Ramp\_Rate Data, Name - None  
IDay            UpRampDay        UpRampHour      DownRampDay      DownRampHour      Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal      Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No        Head\_Loss\_ID    Generator\_Per    Turbine\_Perf\_    Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 8, Name = Current Operations  
Unit\_No        Unit\_HL        Common\_HL        Use\_Com2        Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 37, Name = Current Operations  
Head            Flow            Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 7, Name = Current Operations  
gOutput        Eff            Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay            Unit

Min\_Unit Data, Name - None  
Head            Flow            Eff            CenterLine        Headloss  
GeneratorEff    OpStyle

Scenario Information for Hells Canyon

Physical Setting Conditions, Name - PropOps\_HCDamCurve\_grid20ft

Res\_Storage Data, Name - CEQUAL RS Curve 20ft drawdown

Elevation	Storage
-----------	---------

1666.7	135049
1668.3	138532
1669.9	142016
1673.2	148983
1674.9	152701
1676.5	156419
1679.8	163855
1683.1	171642
1686.4	179429
1689.6	187475
1692.9	195521

Tailwater Data, Name - Current Operations

Flow	Elevation
------	-----------

6000	1467.98
7000	1468.91
8000	1469.68
9000	1470.34
12000	1471.91
14000	1472.77
18000	1474.1
20000	1474.89
24000	1476.1
28000	1477.21
30000	1477.74
35000	1478.98
40000	1480.14
44000	1481.01
48000	1481.84
54000	1483.01
60000	1484.09
65000	1484.92
72500	1486.06
75000	1486.41
80000	1487.08
85000	1487.68
90000	1488.24
95000	1488.73
100000	1489.18
105000	1489.57

Ramp\_Curve Data, Name - HC Dam rating curve

Flow	Elevation
------	-----------

0	59
3950	62



4710	62.5
5531	63
6412	63.5
7352	64
9407	65
10520	65.5
11690	66
12920	66.5
14200	67
16940	68
19890	69
23050	70
26430	71
30020	72
33820	73
37830	74
42040	75
46450	76
51070	77
55880	78
60890	79
66100	80
71500	81
77100	82
82900	83
88890	84
95070	85
101400	86
108000	87

Outlet1 Data, Name - None  
Elevation      Flow

Outlet2 Data, Name - Current Operations  
Elevation      Flow

1600	0
1668	168000
1673	195000
1678	226000
1683	255000
1688	284000
1691	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant_Options Data, Name - Current Operations				
Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	2	2

Operating Setting Conditions, Name - OP-1\_Scenariolf\_lo

Minimum Data, Name - Proposed Ops low

IDay	Data	OrInflow	Dependent
1	8500	False	False
152	8500	False	False
153	6500	True	False
293	6500	True	False
294	9000	False	False
345	9000	False	False
346	8500	False	False
365	8500	False	False

Base Data, Name - None

IDay	Data	OrInflow	Dependent
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Target\_Elev Data, Name - H1687

IDay	Elevation	HardTarget
1	1687	0
365	1687	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1688
365	1688

Min\_Elev Data, Name - 1668ft all year

IDay	Elevation
1	1668
365	1668

Level\_Fluct Data, Name - LF20 all year

IDay	Weekday	Weekend	Hard	Spill
1	20	20	False	False
365	20	20	False	False

Level\_Rate Data, Name - None

IDay	Rate
------	------

Flashboard Data, Name - None

Elevation	Volume	Trip	Reset
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Bypass Data, Name - None

IDay	Data	OrInflow	Destination
------	------	----------	-------------

Ramp\_Rate Data, Name - OP-1\_Scenariolf

IDay	UpRampDay	UpRampHour	DownRampDay	DownRampHour	Type
1	2	0.5	2	0.5	Stage
False					

60	2	0.167	2	0.167	Stage
False					
151	2	0.167	2	0.167	Stage
False					
152	2	0.5	2	0.5	Stage
False					
273	2	0.5	2	0.5	Stage
False					
274	2	0.5	2	0.5	Stage
False					
365	2	0.5	2	0.5	Stage
False					

Withdrawal Data, Name - None  
 Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
 Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 11, Name = Current Operations  
 Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 40, Name = Current Operations  
 Head Flow Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 9, Name = Current Operations  
 gOutput Eff Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
 IDay Unit

Min\_Unit Data, Name - None  
 Head Flow Eff CenterLine Headloss  
 GeneratorEff OpStyle



Complete Scenario Data for Scenario—OP-1\_Scenario2\_average written out on 11/03/2004 9:56:35 AM

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Complete Scenario Data for Scenario - OP-1\_Scenario2\_average  
 Written out on 11/03/2004 9:56:35 AM

System Misc. Name - Proposed Ops Average					
Load_Shape_ID	CarryOver	MaxPeak	ForecastDays	ForecastAcr	
Fall_Chinook_	Flood_Control	Max_Discharge			
8	False	False	3	1	15
4	0				

Load_Shape Data, Name - FP01 SP HL pricing			
IMonth	Period	Duration	Price
1	1	6	
1	2	0	
1	3	6	
1	4	5	
1	5	5	
1	6	0	
1	7	2	
1	8	7	
1	9	6	
1	10	4	
1	11	5	
1	12	2	
2	1	6	
2	2	0	
2	3	6	
2	4	5	
2	5	5	
2	6	0	
2	7	2	
2	8	7	
2	9	6	
2	10	4	
2	11	5	
2	12	2	
3	1	6	
3	2	0	
3	3	6	
3	4	5	
3	5	5	
3	6	0	
3	7	2	
3	8	7	
3	9	6	
3	10	4	
3	11	5	
3	12	2	
4	1	6	
4	2	0	
4	3	8	
4	4	0	
4	5	8	
4	6	0	
4	7	2	

4	8	7
4	9	8
4	10	0
4	11	7
4	12	2
5	1	6
5	2	0
5	3	8
5	4	0
5	5	8
5	6	0
5	7	2
5	8	7
5	9	8
5	10	0
5	11	7
5	12	2
6	1	6
6	2	0
6	3	8
6	4	0
6	5	8
6	6	0
6	7	2
6	8	7
6	9	8
6	10	0
6	11	7
6	12	2
7	1	6
7	2	0
7	3	16
7	4	0
7	5	0
7	6	0
7	7	2
7	8	8
7	9	14
7	10	0
7	11	0
7	12	2
8	1	6
8	2	0
8	3	16
8	4	0
8	5	0
8	6	0
8	7	2
8	8	8
8	9	14
8	10	0
8	11	0
8	12	2
9	1	6
9	2	0
9	3	16
9	4	0



9	5	0
9	6	0
9	7	2
9	8	8
9	9	14
9	10	0
9	11	0
9	12	2
10	1	6
10	2	0
10	3	6
10	4	4
10	5	6
10	6	0
10	7	2
10	8	7
10	9	6
10	10	4
10	11	5
10	12	2
11	1	6
11	2	0
11	3	6
11	4	4
11	5	6
11	6	0
11	7	2
11	8	7
11	9	6
11	10	4
11	11	5
11	12	2
12	1	6
12	2	0
12	3	6
12	4	4
12	5	6
12	6	0
12	7	2
12	8	7
12	9	6
12	10	4
12	11	5
12	12	2

Fall\_Chinook Data, Name - Proposed Ops Average

Draw_Start	Refill_Start	Refill_End	Max_Discharge	Minimum_Max
Maximum_Max	Target_Elevat	Refill_Elevat	Allow_Peak	
252	294	345	11500	0
0	2076	False		0

Flood\_Control Data, Name - RC V2000

IDay	Dalles_Foreca	Brownlee_Fore	Req_Volume
59	75	3	0
59	75	4	200

59	75	5	300
59	75	6	400
59	85	3	150
59	85	4	300
59	85	5	350
59	85	6	400
59	95	3	200
59	95	4	300
59	95	5	350
59	95	6	400
59	105	3	300
59	105	4	400
59	105	5	400
59	105	6	400
59	115	3	300
59	115	4	400
59	115	5	500
59	115	6	500
90	75	3	0
90	75	4	100
90	75	5	200
90	75	6	350
90	85	3	100
90	85	4	300
90	85	5	400
90	85	6	450
90	95	3	150
90	95	4	300
90	95	5	400
90	95	6	500
90	105	3	200
90	105	4	425
90	105	5	475
90	105	6	500
90	115	3	250
90	115	4	450
90	115	5	600
90	115	6	750
105	75	3	0
105	75	4	50
105	75	5	150
105	75	6	250
105	85	3	50
105	85	4	250
105	85	5	400
105	85	6	500
105	95	3	100
105	95	4	300
105	95	5	425
105	95	6	550
105	105	3	150
105	105	4	450
105	105	5	525
105	105	6	600
105	115	3	200
105	115	4	500
105	115	5	650

105	115	6	850
120	75	3	0
120	75	4	0
120	75	5	50
120	75	6	150
120	85	3	0
120	85	4	250
120	85	5	400
120	85	6	500
120	95	3	50
120	95	4	300
120	95	5	450
120	95	6	600
120	105	3	100
120	105	4	450
120	105	5	550
120	105	6	700
120	115	3	150
120	115	4	550
120	115	5	750
120	115	6	980

Max\_Discharge Data, Name - None  
IDay Flow

Scenario Information for Brownlee

Physical Setting Conditions, Name - Current Ops 97b

Res\_Storage Data, Name - CEQUAL97b

Elevation	Storage
1973.2	432247
1979.8	475263
1983.2	498341
1986.5	521420
1989.8	546048
1993.1	570676
1996.5	596713
1999.8	622750
2003.1	650212
2006.5	677675
2009.8	706573
2013.1	735471
2016.5	765566
2019.8	795660
2023.1	827202
2029.8	891862
2033.1	924980
2036.4	959727
2039.8	994474

2043.1	1030689
2046.4	1066905
2049.8	1104803
2053.1	1142701
2056.4	1182254
2059.7	1221807
2063.1	1263344
2066.4	1304880
2069.7	1348494
2073.06	1392108
2076.4	1437212
2079.7	1482317

Tailwater Data, Name - Current Operations  
Flow                      Elevation

500	0.32
1000	0.38
2000	0.51
3000	0.63
4000	0.75
5000	0.87
6000	1
7000	1.11
8000	1.23
9000	1.35
10000	1.47
11000	1.59
12000	1.7
13000	1.82
14000	1.93
15000	2.05
20000	2.61
25000	3.15
30000	3.67
35000	4.18
40000	4.66
45000	5.13
50000	5.58
55000	6
60000	6.42
65000	6.81
70000	7.18
75000	7.54
80000	7.87
85000	8.19
90000	8.49
95000	8.77
100000	9.03

Ramp\_Curve Data, Name - None  
Flow                      Elevation

Outlet1 Data, Name - None  
Elevation              Flow

Outlet2 Data, Name - Current Operations

Elevation	Flow
2027	0
2033	5250
2037	12500
2044	27750
2050	46000
2077	171300

Outlet3 Data, Name - Brownlee Gates

Elevation	Flow
1976	51500
1990	69000
2010	87500
2027	100500
2050	116000
2079	132500

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - OP-1\_Scenario2\_average

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - Proposed Ops Average

IDay	Data	OrInflow	Dependent
1	10500	False	False
152	10500	False	False
153	6500	True	False
293	6500	True	False
294	11500	False	False
345	11500	False	False
346	10500	False	False
365	10500	False	False

Target\_Elev Data, Name - OP-1\_Scenario2\_average

IDay	Elevation	HardTarget
1	2076	0
7	2076	0
158	2069	0
171	2077	0
186	2069	0
212	2049	0
243	2049	0
252	2049	0
365	2076	0

Flood\_Elev Data, Name - H2077 all year

IDay            Elevation

1                2077  
365              2077

Min\_Elev Data, Name - H1976 all year

IDay            Elevation

1                1976  
365              1976

Level\_Fluct Data, Name - LF3 all yr

IDay            Weekday            Weekend            Hard            Spill

1                3                    3                    False            False  
244              3                    3                    False            False  
365              3                    3                    False            False

Level\_Rate Data, Name - None

IDay            Rate

Flashboard Data, Name - None

Elevation        Volume            Trip                Reset

Bypass Data, Name - None

IDay            Data                OrInflow            Destination

Ramp\_Rate Data, Name - None

IDay            UpRampDay            UpRampHour            DownRampDay            DownRampHour            Type  
Peak\_Inside

Withdrawal Data, Name - None

Withdrawal        Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations

Unit\_No            Head\_Loss\_ID            Generator\_Per            Turbine\_Perf\_            Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 6, Name = Current Operations

Unit\_No            Unit\_HL            Common\_HL            Use\_Com2            Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 34, Name = Current Operations

Head                Flow                Eff

**IPC Proprietary Data**

Turbine Performance, ID = 47, Name = Unit 5 n  
Head                      Flow                      Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 5, Name = Unit 5 Current Ops  
gOutput                      Eff                      Cap

**IPC Proprietary Data**

Generator Performance Data, ID = 6, Name = Units 1 - 4 Current Ops  
gOutput                      Eff                      Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay                      Unit

Min\_Unit Data, Name - None  
Head                      Flow                      Eff                      CenterLine                      Headloss  
GeneratorEff                      OpStyle

Scenario Information for Oxbow

Physical Setting Conditions, Name - Current Operations

Res\_Storage Data, Name - CEQUAL RS Curve

Elevation	Storage
1786.42	38536.44
1789.7	41746
1792.98	44954.86
1796.3	48465
1799.54	51975.63
1802.8	55731
1806.1	59487

Tailwater Data, Name - Current Operations

Flow	Elevation
1	1490

Ramp\_Curve Data, Name - None

Flow	Elevation
------	-----------

Outlet1 Data, Name - None

Elevation	Flow
-----------	------

Outlet2 Data, Name - Current Operations

Elevation	Flow
1755	0
1765	25000
1773	50000
1778	55000
1783	100000
1787	125000
1792	150000
1795	175000
1798	200000
1802	225000
1805	250000
1808	275000
1811	300000

Outlet3 Data, Name - None

Elevation	Flow
-----------	------

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1803

IDay	Elevation	HardTarget
1	1803	0
365	1803	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1805
365	1805

Min\_Elev Data, Name - H1795 all year

IDay	Elevation
1	1795
365	1795

Level\_Fluct Data, Name - LF5 all year

IDay	Weekday	Weekend	Hard	Spill
------	---------	---------	------	-------



1	5	5	True	False
365	5	5	True	False

Level\_Rate Data, Name - None  
 IDay Rate

Flashboard Data, Name - None  
 Elevation Volume Trip Reset

Bypass Data, Name - Q100 all year  
 IDay Data OrInflow Destination

1	100	False	3
365	100	False	3

Ramp\_Rate Data, Name - None  
 IDay UpRampDay UpRampHour DownRampDay DownRampHour Type  
 Peak\_Inside

Withdrawal Data, Name - None  
 Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
 Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 8, Name = Current Operations  
 Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 37, Name = Current Operations  
 Head Flow Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 7, Name = Current Operations  
 gOutput Eff Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
 IDay Unit

Min\_Unit Data, Name - None  
 Head Flow Eff CenterLine Headloss  
 GeneratorEff OpStyle

Scenario Information for Hells Canyon

Physical Setting Conditions, Name - PropOps\_HCDamCurve\_grid20ft

Res\_Storage Data, Name - CEQUAL RS Curve 20ft drawdown

Elevation	Storage
1666.7	135049
1668.3	138532
1669.9	142016
1673.2	148983
1674.9	152701
1676.5	156419
1679.8	163855
1683.1	171642
1686.4	179429
1689.6	187475
1692.9	195521

Tailwater Data, Name - Current Operations

Flow	Elevation
6000	1467.98
7000	1468.91
8000	1469.68
9000	1470.34
12000	1471.91
14000	1472.77
18000	1474.1
20000	1474.89
24000	1476.1
28000	1477.21
30000	1477.74
35000	1478.98
40000	1480.14
44000	1481.01
48000	1481.84
54000	1483.01
60000	1484.09
65000	1484.92
72500	1486.06
75000	1486.41
80000	1487.08
85000	1487.68
90000	1488.24
95000	1488.73
100000	1489.18
105000	1489.57

Ramp\_Curve Data, Name - HC Dam rating curve

Flow	Elevation
------	-----------

0	59
3950	62
4710	62.5
5531	63
6412	63.5
7352	64
9407	65
10520	65.5
11690	66
12920	66.5
14200	67
16940	68
19890	69
23050	70
26430	71
30020	72
33820	73
37830	74
42040	75
46450	76
51070	77
55880	78
60890	79
66100	80
71500	81
77100	82
82900	83
88890	84
95070	85
101400	86
108000	87

Outlet1 Data, Name - None  
Elevation      Flow

Outlet2 Data, Name - Current Operations  
Elevation      Flow

1600	0
1668	168000
1673	195000
1678	226000
1683	255000
1688	284000
1691	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant\_Options Data, Name - Current Operations  
Time\_Delay      Min\_Op\_Flow      Min\_RC\_Flow      Op\_Type      PeakorMax

0	0	0	2	2
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Operating Setting Conditions, Name - PropOps\_ave\_RR2inMarMay

Minimum Data, Name - Proposed Ops Average

IDay	Data	OrInflow	Dependent
1	10500	False	False
152	10500	False	False
153	6500	True	False
293	6500	True	False
294	11500	False	False
345	11500	False	False
346	10500	False	False
365	10500	False	False

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1687

IDay	Elevation	HardTarget
1	1687	0
365	1687	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1688
365	1688

Min\_Elev Data, Name - OP-1\_Scenariold\_2

IDay	Elevation
1	1683
59	1683
60	1668
151	1668
152	1683
365	1683

Level\_Fluct Data, Name - OP-1\_Scenariold\_1e\_2

IDay	Weekday	Weekend	Hard	Spill
1	5	5	False	False
59	5	5	False	False
60	20	20	False	False
150	20	20	False	False
152	5	5	False	False
365	5	5	False	False

Level\_Rate Data, Name - None

IDay	Rate
------	------

Flashboard Data, Name - None

Elevation	Volume	Trip	Reset
-----------	--------	------	-------

Bypass Data, Name - None

IDay                      Data                      OrInflow                      Destination

Ramp\_Rate Data, Name - RR0.167MarchMay

IDay	UpRampDay	UpRampHour	DownRampDay	DownRampHour	Type
1	10	1	10	1	Stage
False					
60	10	0.167	10	0.167	Stage
False					
151	10	0.167	10	0.167	Stage
False					
152	4	1	4	1	Stage
False					
273	4	1	4	1	Stage
False					
274	10	1	10	1	Stage
False					
365	10	1	10	1	Stage
False					

Withdrawal Data, Name - None

Withdrawal                      Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations

Unit\_No                      Head\_Loss\_ID                      Generator\_Per                      Turbine\_Perf\_                      Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 11, Name = Current Operations

Unit\_No                      Unit\_HL                      Common\_HL                      Use\_Com2                      Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 40, Name = Current Operations

Head                      Flow                      Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 9, Name = Current Operations

gOutput                      Eff                      Cap

**IPC Proprietary Data**

Maintenance Data, Name - None

IDay                      Unit

Min\_Unit Data, Name - None

Head                      Flow                      Eff                      CenterLine                      Headloss  
GeneratorEff                      OpStyle



Complete Scenario Data for Scenario—OP-1\_Scenario2\_high written out on 11/03/2004 9:59:37 AM

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Complete Scenario Data for Scenario - OP-1\_Scenario2\_high  
 Written out on 11/03/2004 9:59:37 AM

System Misc. Name - Proposed Ops High					
Load_Shape_ID	CarryOver	MaxPeak	ForecastDays	ForecastAcr	
Fall_Chinook_	Flood_Control	Max_Discharge			
8	False	False	3	1	16
4	0				

Load_Shape Data, Name - FP01 SP HL pricing			
IMonth	Period	Duration	Price
1	1	6	
1	2	0	
1	3	6	
1	4	5	
1	5	5	
1	6	0	
1	7	2	
1	8	7	
1	9	6	
1	10	4	
1	11	5	
1	12	2	
2	1	6	
2	2	0	
2	3	6	
2	4	5	
2	5	5	
2	6	0	
2	7	2	
2	8	7	
2	9	6	
2	10	4	
2	11	5	
2	12	2	
3	1	6	
3	2	0	
3	3	6	
3	4	5	
3	5	5	
3	6	0	
3	7	2	
3	8	7	
3	9	6	
3	10	4	
3	11	5	
3	12	2	
4	1	6	
4	2	0	
4	3	8	
4	4	0	
4	5	8	
4	6	0	
4	7	2	

4	8	7
4	9	8
4	10	0
4	11	7
4	12	2
5	1	6
5	2	0
5	3	8
5	4	0
5	5	8
5	6	0
5	7	2
5	8	7
5	9	8
5	10	0
5	11	7
5	12	2
6	1	6
6	2	0
6	3	8
6	4	0
6	5	8
6	6	0
6	7	2
6	8	7
6	9	8
6	10	0
6	11	7
6	12	2
7	1	6
7	2	0
7	3	16
7	4	0
7	5	0
7	6	0
7	7	2
7	8	8
7	9	14
7	10	0
7	11	0
7	12	2
8	1	6
8	2	0
8	3	16
8	4	0
8	5	0
8	6	0
8	7	2
8	8	8
8	9	14
8	10	0
8	11	0
8	12	2
9	1	6
9	2	0
9	3	16
9	4	0

9	5	0
9	6	0
9	7	2
9	8	8
9	9	14
9	10	0
9	11	0
9	12	2
10	1	6
10	2	0
10	3	6
10	4	4
10	5	6
10	6	0
10	7	2
10	8	7
10	9	6
10	10	4
10	11	5
10	12	2
11	1	6
11	2	0
11	3	6
11	4	4
11	5	6
11	6	0
11	7	2
11	8	7
11	9	6
11	10	4
11	11	5
11	12	2
12	1	6
12	2	0
12	3	6
12	4	4
12	5	6
12	6	0
12	7	2
12	8	7
12	9	6
12	10	4
12	11	5
12	12	2

Fall\_Chinook Data, Name - Proposed Ops High

Draw_Start	Refill_Start	Refill_End	Max_Discharge	Minimum_Max
Maximum_Max	Target_Elevat	Refill_Elevat	Allow_Peak	
252	294	345	13000	0
0	2076	False		0

Flood\_Control Data, Name - RC V2000

IDay	Dalles_Foreca	Brownlee_Fore	Req_Volume
59	75	3	0
59	75	4	200

59	75	5	300
59	75	6	400
59	85	3	150
59	85	4	300
59	85	5	350
59	85	6	400
59	95	3	200
59	95	4	300
59	95	5	350
59	95	6	400
59	105	3	300
59	105	4	400
59	105	5	400
59	105	6	400
59	115	3	300
59	115	4	400
59	115	5	500
59	115	6	500
90	75	3	0
90	75	4	100
90	75	5	200
90	75	6	350
90	85	3	100
90	85	4	300
90	85	5	400
90	85	6	450
90	95	3	150
90	95	4	300
90	95	5	400
90	95	6	500
90	105	3	200
90	105	4	425
90	105	5	475
90	105	6	500
90	115	3	250
90	115	4	450
90	115	5	600
90	115	6	750
105	75	3	0
105	75	4	50
105	75	5	150
105	75	6	250
105	85	3	50
105	85	4	250
105	85	5	400
105	85	6	500
105	95	3	100
105	95	4	300
105	95	5	425
105	95	6	550
105	105	3	150
105	105	4	450
105	105	5	525
105	105	6	600
105	115	3	200
105	115	4	500
105	115	5	650

105	115	6	850
120	75	3	0
120	75	4	0
120	75	5	50
120	75	6	150
120	85	3	0
120	85	4	250
120	85	5	400
120	85	6	500
120	95	3	50
120	95	4	300
120	95	5	450
120	95	6	600
120	105	3	100
120	105	4	450
120	105	5	550
120	105	6	700
120	115	3	150
120	115	4	550
120	115	5	750
120	115	6	980

Max\_Discharge Data, Name - None  
IDay Flow

Scenario Information for Brownlee

Physical Setting Conditions, Name - Current Ops 97b

Res\_Storage Data, Name - CEQUAL97b

Elevation	Storage
1973.2	432247
1979.8	475263
1983.2	498341
1986.5	521420
1989.8	546048
1993.1	570676
1996.5	596713
1999.8	622750
2003.1	650212
2006.5	677675
2009.8	706573
2013.1	735471
2016.5	765566
2019.8	795660
2023.1	827202
2029.8	891862
2033.1	924980
2036.4	959727
2039.8	994474

2043.1	1030689
2046.4	1066905
2049.8	1104803
2053.1	1142701
2056.4	1182254
2059.7	1221807
2063.1	1263344
2066.4	1304880
2069.7	1348494
2073.06	1392108
2076.4	1437212
2079.7	1482317

Tailwater Data, Name - Current Operations  
Flow                      Elevation

500	0.32
1000	0.38
2000	0.51
3000	0.63
4000	0.75
5000	0.87
6000	1
7000	1.11
8000	1.23
9000	1.35
10000	1.47
11000	1.59
12000	1.7
13000	1.82
14000	1.93
15000	2.05
20000	2.61
25000	3.15
30000	3.67
35000	4.18
40000	4.66
45000	5.13
50000	5.58
55000	6
60000	6.42
65000	6.81
70000	7.18
75000	7.54
80000	7.87
85000	8.19
90000	8.49
95000	8.77
100000	9.03

Ramp\_Curve Data, Name - None  
Flow                      Elevation

Outlet1 Data, Name - None  
Elevation                  Flow

Outlet2 Data, Name - Current Operations

Elevation	Flow
2027	0
2033	5250
2037	12500
2044	27750
2050	46000
2077	171300

Outlet3 Data, Name - Brownlee Gates

Elevation	Flow
1976	51500
1990	69000
2010	87500
2027	100500
2050	116000
2079	132500

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - OP-1\_Scenario2\_high

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - Proposed Ops High

IDay	Data	OrInflow	Dependent
1	12000	False	False
152	12000	False	False
153	6500	True	False
293	6500	True	False
294	13000	False	False
345	13000	False	False
346	12000	False	False
365	12000	False	False

Target\_Elev Data, Name - OP-1\_Scenario2\_high

IDay	Elevation	HardTarget
1	2076	0
7	2076	0
160	2069	0
171	2076	0
186	2069	0
212	2049	0
243	2049	0
252	2049	0
253	2076	0
365	2076	0

Flood\_Elev Data, Name - H2077 all year

IDay            Elevation

1                2077  
365              2077

Min\_Elev Data, Name - H1976 all year

IDay            Elevation

1                1976  
365              1976

Level\_Fluct Data, Name - LF3 all yr

IDay            Weekday            Weekend            Hard            Spill

1                3                    3                    False            False  
244              3                    3                    False            False  
365              3                    3                    False            False

Level\_Rate Data, Name - None

IDay            Rate

Flashboard Data, Name - None

Elevation        Volume            Trip                Reset

Bypass Data, Name - None

IDay            Data                OrInflow            Destination

Ramp\_Rate Data, Name - None

IDay            UpRampDay            UpRampHour            DownRampDay            DownRampHour            Type  
Peak\_Inside

Withdrawal Data, Name - None

Withdrawal        Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations

Unit\_No            Head\_Loss\_ID            Generator\_Per            Turbine\_Perf\_            Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 6, Name = Current Operations

Unit\_No            Unit\_HL                Common\_HL            Use\_Com2            Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 34, Name = Current Operations

Head                Flow                    Eff

**IPC Proprietary Data**



Turbine Performance, ID = 47, Name = Unit 5 n  
Head                    Flow                    Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 5, Name = Unit 5 Current Ops  
gOutput                Eff                    Cap

**IPC Proprietary Data**

Generator Performance Data, ID = 6, Name = Units 1 - 4 Current Ops  
gOutput                Eff                    Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay                    Unit

Min\_Unit Data, Name - None  
Head                    Flow                    Eff                    CenterLine            Headloss  
GeneratorEff    OpStyle

Scenario Information for Oxbow

Physical Setting Conditions, Name - Current Operations

Res\_Storage Data, Name - CEQUAL RS Curve

Elevation	Storage
1786.42	38536.44
1789.7	41746
1792.98	44954.86
1796.3	48465
1799.54	51975.63
1802.8	55731
1806.1	59487

Tailwater Data, Name - Current Operations

Flow	Elevation
1	1490

Ramp\_Curve Data, Name - None

Flow	Elevation
------	-----------

Outlet1 Data, Name - None

Elevation	Flow
-----------	------

Outlet2 Data, Name - Current Operations

Elevation	Flow
1755	0
1765	25000
1773	50000
1778	55000
1783	100000
1787	125000
1792	150000
1795	175000
1798	200000
1802	225000
1805	250000
1808	275000
1811	300000

Outlet3 Data, Name - None

Elevation	Flow
-----------	------

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1803

IDay	Elevation	HardTarget
1	1803	0
365	1803	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1805
365	1805

Min\_Elev Data, Name - H1795 all year

IDay	Elevation
1	1795
365	1795

Level\_Fluct Data, Name - LF5 all year

IDay	Weekday	Weekend	Hard	Spill
------	---------	---------	------	-------

1	5	5	True	False
365	5	5	True	False

Level\_Rate Data, Name - None  
 IDay Rate

Flashboard Data, Name - None  
 Elevation Volume Trip Reset

Bypass Data, Name - Q100 all year  
 IDay Data OrInflow Destination

1	100	False	3
365	100	False	3

Ramp\_Rate Data, Name - None  
 IDay UpRampDay UpRampHour DownRampDay DownRampHour Type  
 Peak\_Inside

Withdrawal Data, Name - None  
 Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
 Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 8, Name = Current Operations  
 Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 37, Name = Current Operations  
 Head Flow Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 7, Name = Current Operations  
 gOutput Eff Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
 IDay Unit

Min\_Unit Data, Name - None  
 Head Flow Eff CenterLine Headloss  
 GeneratorEff OpStyle

Scenario Information for Hells Canyon

Physical Setting Conditions, Name - PropOps\_HCDamCurve\_grid20ft

Res\_Storage Data, Name - CEQUAL RS Curve 20ft drawdown

Elevation	Storage
1666.7	135049
1668.3	138532
1669.9	142016
1673.2	148983
1674.9	152701
1676.5	156419
1679.8	163855
1683.1	171642
1686.4	179429
1689.6	187475
1692.9	195521

Tailwater Data, Name - Current Operations

Flow	Elevation
6000	1467.98
7000	1468.91
8000	1469.68
9000	1470.34
12000	1471.91
14000	1472.77
18000	1474.1
20000	1474.89
24000	1476.1
28000	1477.21
30000	1477.74
35000	1478.98
40000	1480.14
44000	1481.01
48000	1481.84
54000	1483.01
60000	1484.09
65000	1484.92
72500	1486.06
75000	1486.41
80000	1487.08
85000	1487.68
90000	1488.24
95000	1488.73
100000	1489.18
105000	1489.57

Ramp\_Curve Data, Name - HC Dam rating curve

Flow	Elevation
------	-----------

0	59
3950	62
4710	62.5
5531	63
6412	63.5
7352	64
9407	65
10520	65.5
11690	66
12920	66.5
14200	67
16940	68
19890	69
23050	70
26430	71
30020	72
33820	73
37830	74
42040	75
46450	76
51070	77
55880	78
60890	79
66100	80
71500	81
77100	82
82900	83
88890	84
95070	85
101400	86
108000	87

Outlet1 Data, Name - None  
Elevation      Flow

Outlet2 Data, Name - Current Operations  
Elevation      Flow

1600	0
1668	168000
1673	195000
1678	226000
1683	255000
1688	284000
1691	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	2	2

Operating Setting Conditions, Name - PropOps\_hi\_RR2inMarMay

Minimum Data, Name - Proposed Ops High

IDay	Data	OrInflow	Dependent
1	12000	False	False
152	12000	False	False
153	6500	True	False
293	6500	True	False
294	13000	False	False
345	13000	False	False
346	12000	False	False
365	12000	False	False

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1687

IDay	Elevation	HardTarget
1	1687	0
365	1687	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1688
365	1688

Min\_Elev Data, Name - OP-1\_Scenariold\_1d\_2

IDay	Elevation
1	1683
59	1683
60	1668
151	1668
152	1683
365	1683

Level\_Fluct Data, Name - OP-1\_Scenariold\_1e\_2

IDay	Weekday	Weekend	Hard	Spill
1	5	5	False	False
59	5	5	False	False
60	20	20	False	False
150	20	20	False	False
152	5	5	False	False
365	5	5	False	False

Level\_Rate Data, Name - None

IDay	Rate
------	------

Flashboard Data, Name - None

Elevation	Volume	Trip	Reset
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Bypass Data, Name - None

IDay                      Data                      OrInflow                      Destination

Ramp\_Rate Data, Name - RR0.167MarchMay

IDay	UpRampDay	UpRampHour	DownRampDay	DownRampHour	Type
1	10	1	10	1	Stage
False					
60	10	0.167	10	0.167	Stage
False					
151	10	0.167	10	0.167	Stage
False					
152	4	1	4	1	Stage
False					
273	4	1	4	1	Stage
False					
274	10	1	10	1	Stage
False					
365	10	1	10	1	Stage
False					

Withdrawal Data, Name - None

Withdrawal                      Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations

Unit\_No                      Head\_Loss\_ID                      Generator\_Per                      Turbine\_Perf\_                      Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 11, Name = Current Operations

Unit\_No                      Unit\_HL                      Common\_HL                      Use\_Com2                      Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 40, Name = Current Operations

Head                      Flow                      Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 9, Name = Current Operations

gOutput                      Eff                      Cap

**IPC Proprietary Data**

Maintenance Data, Name - None

IDay                      Unit

Min\_Unit Data, Name - None

Head                      Flow                      Eff                      CenterLine                      Headloss  
GeneratorEff                      OpStyle





Complete Scenario Data for Scenario—OP-1\_Scenario2\_low written out on 11/03/2004 9:59:48 AM

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Complete Scenario Data for Scenario - OP-1\_Scenario2\_low  
 Written out on 11/03/2004 9:59:48 AM

System Misc. Name - Proposed Ops Low					
Load_Shape_ID	CarryOver	MaxPeak	ForecastDays	ForecastAcr	
Fall_Chinook_	Flood_Control	Max_Discharge			
8	False	False	3	1	14
4	0				

Load_Shape Data, Name - FP01 SP HL pricing			
IMonth	Period	Duration	Price
1	1	6	
1	2	0	
1	3	6	
1	4	5	
1	5	5	
1	6	0	
1	7	2	
1	8	7	
1	9	6	
1	10	4	
1	11	5	
1	12	2	
2	1	6	
2	2	0	
2	3	6	
2	4	5	
2	5	5	
2	6	0	
2	7	2	
2	8	7	
2	9	6	
2	10	4	
2	11	5	
2	12	2	
3	1	6	
3	2	0	
3	3	6	
3	4	5	
3	5	5	
3	6	0	
3	7	2	
3	8	7	
3	9	6	
3	10	4	
3	11	5	
3	12	2	
4	1	6	
4	2	0	
4	3	8	
4	4	0	
4	5	8	
4	6	0	
4	7	2	

4	8	7
4	9	8
4	10	0
4	11	7
4	12	2
5	1	6
5	2	0
5	3	8
5	4	0
5	5	8
5	6	0
5	7	2
5	8	7
5	9	8
5	10	0
5	11	7
5	12	2
6	1	6
6	2	0
6	3	8
6	4	0
6	5	8
6	6	0
6	7	2
6	8	7
6	9	8
6	10	0
6	11	7
6	12	2
7	1	6
7	2	0
7	3	16
7	4	0
7	5	0
7	6	0
7	7	2
7	8	8
7	9	14
7	10	0
7	11	0
7	12	2
8	1	6
8	2	0
8	3	16
8	4	0
8	5	0
8	6	0
8	7	2
8	8	8
8	9	14
8	10	0
8	11	0
8	12	2
9	1	6
9	2	0
9	3	16
9	4	0

9	5	0
9	6	0
9	7	2
9	8	8
9	9	14
9	10	0
9	11	0
9	12	2
10	1	6
10	2	0
10	3	6
10	4	4
10	5	6
10	6	0
10	7	2
10	8	7
10	9	6
10	10	4
10	11	5
10	12	2
11	1	6
11	2	0
11	3	6
11	4	4
11	5	6
11	6	0
11	7	2
11	8	7
11	9	6
11	10	4
11	11	5
11	12	2
12	1	6
12	2	0
12	3	6
12	4	4
12	5	6
12	6	0
12	7	2
12	8	7
12	9	6
12	10	4
12	11	5
12	12	2

Fall\_Chinook Data, Name - Proposed Ops Low

Draw_Start	Refill_Start	Refill_End	Max_Discharge	Minimum_Max
Maximum_Max	Target_Elevat	Refill_Elevat	Allow_Peak	
252	294	345	9000	0
0	2076	False		0

Flood\_Control Data, Name - RC V2000

IDay	Dalles_Foreca	Brownlee_Fore	Req_Volume
59	75	3	0
59	75	4	200

59	75	5	300
59	75	6	400
59	85	3	150
59	85	4	300
59	85	5	350
59	85	6	400
59	95	3	200
59	95	4	300
59	95	5	350
59	95	6	400
59	105	3	300
59	105	4	400
59	105	5	400
59	105	6	400
59	115	3	300
59	115	4	400
59	115	5	500
59	115	6	500
90	75	3	0
90	75	4	100
90	75	5	200
90	75	6	350
90	85	3	100
90	85	4	300
90	85	5	400
90	85	6	450
90	95	3	150
90	95	4	300
90	95	5	400
90	95	6	500
90	105	3	200
90	105	4	425
90	105	5	475
90	105	6	500
90	115	3	250
90	115	4	450
90	115	5	600
90	115	6	750
105	75	3	0
105	75	4	50
105	75	5	150
105	75	6	250
105	85	3	50
105	85	4	250
105	85	5	400
105	85	6	500
105	95	3	100
105	95	4	300
105	95	5	425
105	95	6	550
105	105	3	150
105	105	4	450
105	105	5	525
105	105	6	600
105	115	3	200
105	115	4	500
105	115	5	650

105	115	6	850
120	75	3	0
120	75	4	0
120	75	5	50
120	75	6	150
120	85	3	0
120	85	4	250
120	85	5	400
120	85	6	500
120	95	3	50
120	95	4	300
120	95	5	450
120	95	6	600
120	105	3	100
120	105	4	450
120	105	5	550
120	105	6	700
120	115	3	150
120	115	4	550
120	115	5	750
120	115	6	980

Max\_Discharge Data, Name - None  
IDay Flow

Scenario Information for Brownlee

Physical Setting Conditions, Name - Current Ops 97b

Res\_Storage Data, Name - CEQUAL97b

Elevation	Storage
1973.2	432247
1979.8	475263
1983.2	498341
1986.5	521420
1989.8	546048
1993.1	570676
1996.5	596713
1999.8	622750
2003.1	650212
2006.5	677675
2009.8	706573
2013.1	735471
2016.5	765566
2019.8	795660
2023.1	827202
2029.8	891862
2033.1	924980
2036.4	959727
2039.8	994474

2043.1	1030689
2046.4	1066905
2049.8	1104803
2053.1	1142701
2056.4	1182254
2059.7	1221807
2063.1	1263344
2066.4	1304880
2069.7	1348494
2073.06	1392108
2076.4	1437212
2079.7	1482317

Tailwater Data, Name - Current Operations  
Flow                      Elevation

500	0.32
1000	0.38
2000	0.51
3000	0.63
4000	0.75
5000	0.87
6000	1
7000	1.11
8000	1.23
9000	1.35
10000	1.47
11000	1.59
12000	1.7
13000	1.82
14000	1.93
15000	2.05
20000	2.61
25000	3.15
30000	3.67
35000	4.18
40000	4.66
45000	5.13
50000	5.58
55000	6
60000	6.42
65000	6.81
70000	7.18
75000	7.54
80000	7.87
85000	8.19
90000	8.49
95000	8.77
100000	9.03

Ramp\_Curve Data, Name - None  
Flow                      Elevation

Outlet1 Data, Name - None  
Elevation                  Flow



Outlet2 Data, Name - Current Operations

Elevation	Flow
2027	0
2033	5250
2037	12500
2044	27750
2050	46000
2077	171300

Outlet3 Data, Name - Brownlee Gates

Elevation	Flow
1976	51500
1990	69000
2010	87500
2027	100500
2050	116000
2079	132500

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - OP-1\_Scenario2\_low

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - Proposed Ops Low

IDay	Data	OrInflow	Dependent
1	8500	False	False
152	8500	False	False
153	6500	True	False
293	6500	True	False
294	9000	False	False
345	9000	False	False
346	8500	False	False
365	8500	False	False

Target\_Elev Data, Name - OP-1\_Scenario2\_low

IDay	Elevation	HardTarget
1	2076	0
7	2076	0
121	2076	0
171	2076	0
186	2069	0
212	2049	0
243	2049	0
252	2049	0
365	2076	0

Flood\_Elev Data, Name - H2077 all year

IDay            Elevation

1                2077  
365              2077

Min\_Elev Data, Name - H1976 all year

IDay            Elevation

1                1976  
365              1976

Level\_Fluct Data, Name - LF3 LF1 0521 to 0621

IDay            Weekday            Weekend            Hard                Spill

1                3                    3                    False                False  
140              3                    3                    False                False  
141              1                    1                    False                True  
172              1                    1                    False                True  
173              3                    3                    False                False  
365              3                    3                    False                False

Level\_Rate Data, Name - None

IDay            Rate

Flashboard Data, Name - None

Elevation        Volume              Trip                Reset

Bypass Data, Name - None

IDay            Data                OrInflow            Destination

Ramp\_Rate Data, Name - None

IDay            UpRampDay            UpRampHour            DownRampDay            DownRampHour            Type  
Peak\_Inside

Withdrawal Data, Name - None

Withdrawal        Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations

Unit\_No            Head\_Loss\_ID            Generator\_Per            Turbine\_Perf\_            Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 6, Name = Current Operations

Unit\_No            Unit\_HL                Common\_HL            Use\_Com2                Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 34, Name = Current Operations

Head                Flow                    Eff

**IPC Proprietary Data**

Turbine Performance, ID = 47, Name = Unit 5 n  
Head                    Flow                    Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 5, Name = Unit 5 Current Ops  
gOutput                Eff                    Cap

**IPC Proprietary Data**

Generator Performance Data, ID = 6, Name = Units 1 - 4 Current Ops  
gOutput                Eff                    Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay                    Unit

Min\_Unit Data, Name - None  
Head                    Flow                    Eff                    CenterLine                Headloss  
GeneratorEff    OpStyle

Scenario Information for Oxbow

Physical Setting Conditions, Name - Current Operations

Res\_Storage Data, Name - CEQUAL RS Curve  
Elevation                Storage

1786.42	38536.44
1789.7	41746
1792.98	44954.86
1796.3	48465
1799.54	51975.63
1802.8	55731
1806.1	59487

Tailwater Data, Name - Current Operations  
Flow                    Elevation

1	1490
---	------

Ramp\_Curve Data, Name - None  
Flow                    Elevation

Outlet1 Data, Name - None

Elevation Flow

Outlet2 Data, Name - Current Operations

Elevation	Flow
1755	0
1765	25000
1773	50000
1778	55000
1783	100000
1787	125000
1792	150000
1795	175000
1798	200000
1802	225000
1805	250000
1808	275000
1811	300000

Outlet3 Data, Name - None

Elevation Flow

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1803

IDay	Elevation	HardTarget
1	1803	0
365	1803	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1805
365	1805

Min\_Elev Data, Name - H1795 all year

IDay	Elevation
1	1795
365	1795

Level\_Fluct Data, Name - LF5 all year

IDay	Weekday	Weekend	Hard	Spill
1	5	5	True	False
365	5	5	True	False

Level\_Rate Data, Name - None

IDay	Rate
------	------

Flashboard Data, Name - None

Elevation	Volume	Trip	Reset
-----------	--------	------	-------

Bypass Data, Name - Q100 all year

IDay	Data	OrInflow	Destination
1	100	False	3
365	100	False	3

Ramp\_Rate Data, Name - None

IDay	UpRampDay	UpRampHour	DownRampDay	DownRampHour	Type
Peak_Inside					

Withdrawal Data, Name - None

Withdrawal	Return
------------	--------

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations

Unit_No	Head_Loss_ID	Generator_Per	Turbine_Perf_	Gate_Leakage
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**IPC Proprietary Data**

Head Loss Data, ID = 8, Name = Current Operations

Unit_No	Unit_HL	Common_HL	Use_Com2	Max_Unit
---------	---------	-----------	----------	----------

**IPC Proprietary Data**

Turbine Performance, ID = 37, Name = Current Operations

Head	Flow	Eff
------	------	-----

**IPC Proprietary Data**

Generator Performance Data, ID = 7, Name = Current Operations

gOutput	Eff	Cap
---------	-----	-----

**IPC Proprietary Data**

Maintenance Data, Name - None

IDay	Unit
------	------

Min\_Unit Data, Name - None

Head	Flow	Eff	CenterLine	Headloss
GeneratorEff	OpStyle			

Scenario Information for Hells Canyon

Physical Setting Conditions, Name - PropOps\_HCDamCurve\_grid20ft

Res\_Storage Data, Name - CEQUAL RS Curve 20ft drawdown

Elevation	Storage
-----------	---------

1666.7	135049
1668.3	138532
1669.9	142016
1673.2	148983
1674.9	152701
1676.5	156419
1679.8	163855
1683.1	171642
1686.4	179429
1689.6	187475
1692.9	195521

Tailwater Data, Name - Current Operations

Flow	Elevation
------	-----------

6000	1467.98
7000	1468.91
8000	1469.68
9000	1470.34
12000	1471.91
14000	1472.77
18000	1474.1
20000	1474.89
24000	1476.1
28000	1477.21
30000	1477.74
35000	1478.98
40000	1480.14
44000	1481.01
48000	1481.84
54000	1483.01
60000	1484.09
65000	1484.92
72500	1486.06
75000	1486.41
80000	1487.08
85000	1487.68
90000	1488.24
95000	1488.73
100000	1489.18
105000	1489.57

Ramp\_Curve Data, Name - HC Dam rating curve

Flow                    Elevation

0	59
3950	62
4710	62.5
5531	63
6412	63.5
7352	64
9407	65
10520	65.5
11690	66
12920	66.5
14200	67
16940	68
19890	69
23050	70
26430	71
30020	72
33820	73
37830	74
42040	75
46450	76
51070	77
55880	78
60890	79
66100	80
71500	81
77100	82
82900	83
88890	84
95070	85
101400	86
108000	87

Outlet1 Data, Name - None

Elevation            Flow

Outlet2 Data, Name - Current Operations

Elevation            Flow

1600	0
1668	168000
1673	195000
1678	226000
1683	255000
1688	284000
1691	300000

Outlet3 Data, Name - None

Elevation            Flow

Plant\_Options Data, Name - Current Operations

Time\_Delay    Min\_Op\_Flow    Min\_RC\_Flow    Op\_Type            PeakorMax

0 0 0 2 2

Operating Setting Conditions, Name - PropOps\_lo\_2inMarMay

Minimum Data, Name - Proposed Ops low

IDay	Data	OrInflow	Dependent
1	8500	False	False
152	8500	False	False
153	6500	True	False
293	6500	True	False
294	9000	False	False
345	9000	False	False
346	8500	False	False
365	8500	False	False

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1687

IDay	Elevation	HardTarget
1	1687	0
365	1687	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1688
365	1688

Min\_Elev Data, Name - OP-1\_Scenariold\_1d\_2

IDay	Elevation
1	1683
59	1683
60	1668
151	1668
152	1683
365	1683

Level\_Fluct Data, Name - OP-1\_Scenariold\_1e\_2

IDay	Weekday	Weekend	Hard	Spill
1	5	5	False	False
59	5	5	False	False
60	20	20	False	False
150	20	20	False	False
152	5	5	False	False
365	5	5	False	False

Level\_Rate Data, Name - None

IDay	Rate
------	------



Flashboard Data, Name - None

Elevation      Volume              Trip              Reset

Bypass Data, Name - None

IDay              Data              OrInflow              Destination

Ramp\_Rate Data, Name - RR0.167MarchMay

IDay	UpRampDay	UpRampHour	DownRampDay	DownRampHour	Type
1	10	1	10	1	Stage
False					
60	10	0.167	10	0.167	Stage
False					
151	10	0.167	10	0.167	Stage
False					
152	4	1	4	1	Stage
False					
273	4	1	4	1	Stage
False					
274	10	1	10	1	Stage
False					
365	10	1	10	1	Stage
False					

Withdrawal Data, Name - None

Withdrawal      Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations

Unit\_No      Head\_Loss\_ID      Generator\_Per      Turbine\_Perf\_      Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 11, Name = Current Operations

Unit\_No      Unit\_HL      Common\_HL      Use\_Com2      Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 40, Name = Current Operations

Head      Flow      Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 9, Name = Current Operations

gOutput      Eff      Cap

**IPC Proprietary Data**

Maintenance Data, Name - None

IDay      Unit

Min\_Unit Data, Name - None  
Head Flow Eff CenterLine Headloss  
GeneratorEff OpStyle

Complete Scenario Data for Scenario—OP-1\_Scenario3\_average written out on 11/03/2004 10:15:18 AM

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Complete Scenario Data for Scenario - OP-1\_Scenario3\_average  
 Written out on 11/03/2004 10:15:18 AM

System Misc. Name - Proposed Ops Average					
Load_Shape_ID	CarryOver	MaxPeak	ForecastDays	ForecastAcr	
Fall_Chinook_	Flood_Control	Max_Discharge			
8	False	False	3	1	15
4	0				

Load_Shape Data, Name - FP01 SP HL pricing			
IMonth	Period	Duration	Price
1	1	6	
1	2	0	
1	3	6	
1	4	5	
1	5	5	
1	6	0	
1	7	2	
1	8	7	
1	9	6	
1	10	4	
1	11	5	
1	12	2	
2	1	6	
2	2	0	
2	3	6	
2	4	5	
2	5	5	
2	6	0	
2	7	2	
2	8	7	
2	9	6	
2	10	4	
2	11	5	
2	12	2	
3	1	6	
3	2	0	
3	3	6	
3	4	5	
3	5	5	
3	6	0	
3	7	2	
3	8	7	
3	9	6	
3	10	4	
3	11	5	
3	12	2	
4	1	6	
4	2	0	
4	3	8	
4	4	0	
4	5	8	
4	6	0	
4	7	2	

4	8	7
4	9	8
4	10	0
4	11	7
4	12	2
5	1	6
5	2	0
5	3	8
5	4	0
5	5	8
5	6	0
5	7	2
5	8	7
5	9	8
5	10	0
5	11	7
5	12	2
6	1	6
6	2	0
6	3	8
6	4	0
6	5	8
6	6	0
6	7	2
6	8	7
6	9	8
6	10	0
6	11	7
6	12	2
7	1	6
7	2	0
7	3	16
7	4	0
7	5	0
7	6	0
7	7	2
7	8	8
7	9	14
7	10	0
7	11	0
7	12	2
8	1	6
8	2	0
8	3	16
8	4	0
8	5	0
8	6	0
8	7	2
8	8	8
8	9	14
8	10	0
8	11	0
8	12	2
9	1	6
9	2	0
9	3	16
9	4	0

9	5	0
9	6	0
9	7	2
9	8	8
9	9	14
9	10	0
9	11	0
9	12	2
10	1	6
10	2	0
10	3	6
10	4	4
10	5	6
10	6	0
10	7	2
10	8	7
10	9	6
10	10	4
10	11	5
10	12	2
11	1	6
11	2	0
11	3	6
11	4	4
11	5	6
11	6	0
11	7	2
11	8	7
11	9	6
11	10	4
11	11	5
11	12	2
12	1	6
12	2	0
12	3	6
12	4	4
12	5	6
12	6	0
12	7	2
12	8	7
12	9	6
12	10	4
12	11	5
12	12	2

Fall\_Chinook Data, Name - Proposed Ops Average

Draw_Start	Refill_Start	Refill_End	Max_Discharge	Minimum_Max
Maximum_Max	Target_Elevat	Refill_Elevat	Allow_Peak	
252	294	345	11500	0
0	2076	False		0

Flood\_Control Data, Name - RC V2000

IDay	Dalles_Foreca	Brownlee_Fore	Req_Volume
59	75	3	0
59	75	4	200

59	75	5	300
59	75	6	400
59	85	3	150
59	85	4	300
59	85	5	350
59	85	6	400
59	95	3	200
59	95	4	300
59	95	5	350
59	95	6	400
59	105	3	300
59	105	4	400
59	105	5	400
59	105	6	400
59	115	3	300
59	115	4	400
59	115	5	500
59	115	6	500
90	75	3	0
90	75	4	100
90	75	5	200
90	75	6	350
90	85	3	100
90	85	4	300
90	85	5	400
90	85	6	450
90	95	3	150
90	95	4	300
90	95	5	400
90	95	6	500
90	105	3	200
90	105	4	425
90	105	5	475
90	105	6	500
90	115	3	250
90	115	4	450
90	115	5	600
90	115	6	750
105	75	3	0
105	75	4	50
105	75	5	150
105	75	6	250
105	85	3	50
105	85	4	250
105	85	5	400
105	85	6	500
105	95	3	100
105	95	4	300
105	95	5	425
105	95	6	550
105	105	3	150
105	105	4	450
105	105	5	525
105	105	6	600
105	115	3	200
105	115	4	500
105	115	5	650



105	115	6	850
120	75	3	0
120	75	4	0
120	75	5	50
120	75	6	150
120	85	3	0
120	85	4	250
120	85	5	400
120	85	6	500
120	95	3	50
120	95	4	300
120	95	5	450
120	95	6	600
120	105	3	100
120	105	4	450
120	105	5	550
120	105	6	700
120	115	3	150
120	115	4	550
120	115	5	750
120	115	6	980

Max\_Discharge Data, Name - None  
IDay Flow

Scenario Information for Brownlee

Physical Setting Conditions, Name - Current Ops 97b

Res\_Storage Data, Name - CEQUAL97b

Elevation	Storage
1973.2	432247
1979.8	475263
1983.2	498341
1986.5	521420
1989.8	546048
1993.1	570676
1996.5	596713
1999.8	622750
2003.1	650212
2006.5	677675
2009.8	706573
2013.1	735471
2016.5	765566
2019.8	795660
2023.1	827202
2029.8	891862
2033.1	924980
2036.4	959727
2039.8	994474

2043.1	1030689
2046.4	1066905
2049.8	1104803
2053.1	1142701
2056.4	1182254
2059.7	1221807
2063.1	1263344
2066.4	1304880
2069.7	1348494
2073.06	1392108
2076.4	1437212
2079.7	1482317

Tailwater Data, Name - Current Operations  
Flow                      Elevation

500	0.32
1000	0.38
2000	0.51
3000	0.63
4000	0.75
5000	0.87
6000	1
7000	1.11
8000	1.23
9000	1.35
10000	1.47
11000	1.59
12000	1.7
13000	1.82
14000	1.93
15000	2.05
20000	2.61
25000	3.15
30000	3.67
35000	4.18
40000	4.66
45000	5.13
50000	5.58
55000	6
60000	6.42
65000	6.81
70000	7.18
75000	7.54
80000	7.87
85000	8.19
90000	8.49
95000	8.77
100000	9.03

Ramp\_Curve Data, Name - None  
Flow                      Elevation

Outlet1 Data, Name - None  
Elevation              Flow

Outlet2 Data, Name - Current Operations

Elevation	Flow
2027	0
2033	5250
2037	12500
2044	27750
2050	46000
2077	171300

Outlet3 Data, Name - Brownlee Gates

Elevation	Flow
1976	51500
1990	69000
2010	87500
2027	100500
2050	116000
2079	132500

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - OP-1\_Scenario3&4\_average

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - OP-1\_Scenario3&4\_average

IDay	Data	OrInflow	Dependent
1	10500	False	False
152	10500	False	False
153	8500	False	False
293	8500	False	False
294	11500	False	False
345	11500	False	False
346	10500	False	False
365	10500	False	False

Target\_Elev Data, Name - Proposed Ops Average

IDay	Elevation	HardTarget
1	2076	0
7	2076	0
158	2069	0
189	2076	0
243	2069	0
252	2069	0
365	2076	0

Flood\_Elev Data, Name - H2077 all year

IDay	Elevation
------	-----------

1 2077  
365 2077

Min\_Elev Data, Name - H1976 all year  
IDay Elevation

1 1976  
365 1976

Level\_Fluct Data, Name - LF3 all yr  
IDay Weekday Weekend

	Weekday	Weekend	Hard	Spill
1	3	3	False	False
244	3	3	False	False
365	3	3	False	False

Level\_Rate Data, Name - None  
IDay Rate

Flashboard Data, Name - None  
Elevation Volume Trip Reset

Bypass Data, Name - None  
IDay Data OrInflow Destination

Ramp\_Rate Data, Name - None  
IDay UpRampDay UpRampHour DownRampDay DownRampHour Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 6, Name = Current Operations  
Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 34, Name = Current Operations  
Head Flow Eff

**IPC Proprietary Data**

Turbine Performance, ID = 47, Name = Unit 5 n  
Head Flow Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 5, Name = Unit 5 Current Ops  
gOutput            Eff                    Cap

**IPC Proprietary Data**

Generator Performance Data, ID = 6, Name = Units 1 - 4 Current Ops  
gOutput            Eff                    Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay                Unit

Min\_Unit Data, Name - None  
Head                Flow                    Eff                    CenterLine            Headloss  
GeneratorEff    OpStyle

Scenario Information for Oxbow

Physical Setting Conditions, Name - Current Operations

Res\_Storage Data, Name - CEQUAL RS Curve  
Elevation            Storage

1786.42	38536.44
1789.7	41746
1792.98	44954.86
1796.3	48465
1799.54	51975.63
1802.8	55731
1806.1	59487

Tailwater Data, Name - Current Operations  
Flow                Elevation

1	1490
---	------

Ramp\_Curve Data, Name - None  
Flow                Elevation

Outlet1 Data, Name - None  
Elevation            Flow

Outlet2 Data, Name - Current Operations  
Elevation            Flow

1755	0
1765	25000
1773	50000
1778	55000
1783	100000
1787	125000
1792	150000
1795	175000
1798	200000
1802	225000
1805	250000
1808	275000
1811	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1803

IDay	Elevation	HardTarget
1	1803	0
365	1803	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1805
365	1805

Min\_Elev Data, Name - H1795 all year

IDay	Elevation
1	1795
365	1795

Level\_Fluct Data, Name - LF5 all year

IDay	Weekday	Weekend	Hard	Spill
1	5	5	True	False
365	5	5	True	False

Level\_Rate Data, Name - None  
IDay            Rate

Flashboard Data, Name - None  
Elevation      Volume            Trip            Reset

Bypass Data, Name - Q100 all year  
IDay            Data            OrInflow        Destination

1	100	False	3
365	100	False	3

Ramp\_Rate Data, Name - None  
IDay            UpRampDay        UpRampHour      DownRampDay      DownRampHour      Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal      Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No          Head\_Loss\_ID      Generator\_Per      Turbine\_Perf\_      Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 8, Name = Current Operations  
Unit\_No          Unit\_HL            Common\_HL        Use\_Com2            Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 37, Name = Current Operations  
Head            Flow            Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 7, Name = Current Operations  
gOutput          Eff            Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay            Unit

Min\_Unit Data, Name - None  
Head            Flow            Eff            CenterLine        Headloss  
GeneratorEff    OpStyle

Scenario Information for Hells Canyon

Physical Setting Conditions, Name - Current Operation

Res\_Storage Data, Name - CEQUAL RS Curve

Elevation	Storage
1674.9	152701
1676.5	156419
1679.8	163855
1683.1	171642
1686.4	179429
1689.6	187475
1692.9	195521

Tailwater Data, Name - Current Operations

Flow	Elevation
6000	1467.98
7000	1468.91
8000	1469.68
9000	1470.34
12000	1471.91
14000	1472.77
18000	1474.1
20000	1474.89
24000	1476.1
28000	1477.21
30000	1477.74
35000	1478.98
40000	1480.14
44000	1481.01
48000	1481.84
54000	1483.01
60000	1484.09
65000	1484.92
72500	1486.06
75000	1486.41
80000	1487.08
85000	1487.68
90000	1488.24
95000	1488.73
100000	1489.18
105000	1489.57

Ramp\_Curve Data, Name - Johnson Bar rating curve

Flow	Elevation
0	2.2
3600	3
4570	3.5
5650	4
6899	4.5
8300	5



9797	5.5
11427	6
13173	6.5
14975	7
16876	7.5
18822	8
20810	8.5
22837	9
24901	9.5
27000	10
29066	10.5
31159	11
33277	11.5
35420	12
39770	13
41982	13.5
44213	14
48734	15
51023	15.5
53331	16
58000	17
60500	17.5

Outlet1 Data, Name - None  
Elevation      Flow

Outlet2 Data, Name - Current Operations  
Elevation      Flow

1600	0
1668	168000
1673	195000
1678	226000
1683	255000
1688	284000
1691	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	2	2

Operating Setting Conditions, Name - OP-1\_Scenario3\_average

Minimum Data, Name - OP-1\_Scenario3&4\_average

IDay	Data	OrInflow	Dependent
1	10500	False	False
152	10500	False	False
153	8500	False	False
293	8500	False	False
294	11500	False	False

345	11500	False	False
346	10500	False	False
365	10500	False	False

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1687

IDay	Elevation	HardTarget
1	1687	0
365	1687	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1688
365	1688

Min\_Elev Data, Name - 1683 all year

IDay	Elevation
1	1683
365	1683

Level\_Fluct Data, Name - LF5 all year

IDay	Weekday	Weekend	Hard	Spill
1	5	5	False	False
365	5	5	False	False

Level\_Rate Data, Name - None

IDay	Rate
------	------

Flashboard Data, Name - None

Elevation	Volume	Trip	Reset
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Bypass Data, Name - None

IDay	Data	OrInflow	Destination
------	------	----------	-------------

Ramp\_Rate Data, Name - Proposed Ops

IDay	UpRampDay	UpRampHour	DownRampDay	DownRampHour	Type
Peak_Inside					
1	10	1	10	1	Stage
False					
90	10	1	10	1	Stage
False					
91	2.9	1	2.9	1	Stage
False					
273	2.9	1	2.9	1	Stage
False					

274	10	1	10	1	Stage
False					
293	10	1	10	1	Stage
False					
294	1	1	1	1	Stage
False					
345	1	1	1	1	Stage
False					
346	10	1	10	1	Stage
False					
365	10	1	10	1	Stage
False					

Withdrawal Data, Name - None  
 Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
 Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 11, Name = Current Operations  
 Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 40, Name = Current Operations  
 Head Flow Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 9, Name = Current Operations  
 gOutput Eff Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
 IDay Unit

Min\_Unit Data, Name - None  
 Head Flow Eff CenterLine Headloss  
 GeneratorEff OpStyle



Complete Scenario Data for Scenario—OP-1\_Scenario3\_hi written out on 11/03/2004 10:15:32 AM

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Complete Scenario Data for Scenario - OP-1\_Scenario3\_hi  
 Written out on 11/03/2004 10:15:32 AM

System Misc. Name - Proposed	Ops High	ForecastDays	ForecastAcr
Load_Shape_ID CarryOver	MaxPeak		
Fall_Chinook_ Flood_Control	Max_Discharge		
8	False	3	1
4	0		16

Load_Shape Data, Name - FP01	SP HL pricing
IMonth	Period Duration Price
1	1 6
1	2 0
1	3 6
1	4 5
1	5 5
1	6 0
1	7 2
1	8 7
1	9 6
1	10 4
1	11 5
1	12 2
2	1 6
2	2 0
2	3 6
2	4 5
2	5 5
2	6 0
2	7 2
2	8 7
2	9 6
2	10 4
2	11 5
2	12 2
3	1 6
3	2 0
3	3 6
3	4 5
3	5 5
3	6 0
3	7 2
3	8 7
3	9 6
3	10 4
3	11 5
3	12 2
4	1 6
4	2 0
4	3 8
4	4 0
4	5 8
4	6 0
4	7 2

4	8	7
4	9	8
4	10	0
4	11	7
4	12	2
5	1	6
5	2	0
5	3	8
5	4	0
5	5	8
5	6	0
5	7	2
5	8	7
5	9	8
5	10	0
5	11	7
5	12	2
6	1	6
6	2	0
6	3	8
6	4	0
6	5	8
6	6	0
6	7	2
6	8	7
6	9	8
6	10	0
6	11	7
6	12	2
7	1	6
7	2	0
7	3	16
7	4	0
7	5	0
7	6	0
7	7	2
7	8	8
7	9	14
7	10	0
7	11	0
7	12	2
8	1	6
8	2	0
8	3	16
8	4	0
8	5	0
8	6	0
8	7	2
8	8	8
8	9	14
8	10	0
8	11	0
8	12	2
9	1	6
9	2	0
9	3	16
9	4	0



9	5	0
9	6	0
9	7	2
9	8	8
9	9	14
9	10	0
9	11	0
9	12	2
10	1	6
10	2	0
10	3	6
10	4	4
10	5	6
10	6	0
10	7	2
10	8	7
10	9	6
10	10	4
10	11	5
10	12	2
11	1	6
11	2	0
11	3	6
11	4	4
11	5	6
11	6	0
11	7	2
11	8	7
11	9	6
11	10	4
11	11	5
11	12	2
12	1	6
12	2	0
12	3	6
12	4	4
12	5	6
12	6	0
12	7	2
12	8	7
12	9	6
12	10	4
12	11	5
12	12	2

Fall\_Chinook Data, Name - Proposed Ops High

Draw_Start	Refill_Start	Refill_End	Max_Discharge	Minimum_Max
Maximum_Max	Target_Elevat	Refill_Elevat	Allow_Peak	
252	294	345	13000	0
0	2076	False		0

Flood\_Control Data, Name - RC V2000

IDay	Dalles_Foreca	Brownlee_Fore	Req_Volume
59	75	3	0
59	75	4	200

59	75	5	300
59	75	6	400
59	85	3	150
59	85	4	300
59	85	5	350
59	85	6	400
59	95	3	200
59	95	4	300
59	95	5	350
59	95	6	400
59	105	3	300
59	105	4	400
59	105	5	400
59	105	6	400
59	115	3	300
59	115	4	400
59	115	5	500
59	115	6	500
90	75	3	0
90	75	4	100
90	75	5	200
90	75	6	350
90	85	3	100
90	85	4	300
90	85	5	400
90	85	6	450
90	95	3	150
90	95	4	300
90	95	5	400
90	95	6	500
90	105	3	200
90	105	4	425
90	105	5	475
90	105	6	500
90	115	3	250
90	115	4	450
90	115	5	600
90	115	6	750
105	75	3	0
105	75	4	50
105	75	5	150
105	75	6	250
105	85	3	50
105	85	4	250
105	85	5	400
105	85	6	500
105	95	3	100
105	95	4	300
105	95	5	425
105	95	6	550
105	105	3	150
105	105	4	450
105	105	5	525
105	105	6	600
105	115	3	200
105	115	4	500
105	115	5	650

105	115	6	850
120	75	3	0
120	75	4	0
120	75	5	50
120	75	6	150
120	85	3	0
120	85	4	250
120	85	5	400
120	85	6	500
120	95	3	50
120	95	4	300
120	95	5	450
120	95	6	600
120	105	3	100
120	105	4	450
120	105	5	550
120	105	6	700
120	115	3	150
120	115	4	550
120	115	5	750
120	115	6	980

Max\_Discharge Data, Name - None  
IDay Flow

Scenario Information for Brownlee

Physical Setting Conditions, Name - Current Ops 97b

Res\_Storage Data, Name - CEQUAL97b

Elevation	Storage
1973.2	432247
1979.8	475263
1983.2	498341
1986.5	521420
1989.8	546048
1993.1	570676
1996.5	596713
1999.8	622750
2003.1	650212
2006.5	677675
2009.8	706573
2013.1	735471
2016.5	765566
2019.8	795660
2023.1	827202
2029.8	891862
2033.1	924980
2036.4	959727
2039.8	994474

2043.1	1030689
2046.4	1066905
2049.8	1104803
2053.1	1142701
2056.4	1182254
2059.7	1221807
2063.1	1263344
2066.4	1304880
2069.7	1348494
2073.06	1392108
2076.4	1437212
2079.7	1482317

Tailwater Data, Name - Current Operations  
Flow                      Elevation

500	0.32
1000	0.38
2000	0.51
3000	0.63
4000	0.75
5000	0.87
6000	1
7000	1.11
8000	1.23
9000	1.35
10000	1.47
11000	1.59
12000	1.7
13000	1.82
14000	1.93
15000	2.05
20000	2.61
25000	3.15
30000	3.67
35000	4.18
40000	4.66
45000	5.13
50000	5.58
55000	6
60000	6.42
65000	6.81
70000	7.18
75000	7.54
80000	7.87
85000	8.19
90000	8.49
95000	8.77
100000	9.03

Ramp\_Curve Data, Name - None  
Flow                      Elevation

Outlet1 Data, Name - None  
Elevation                  Flow

Outlet2 Data, Name - Current Operations

Elevation	Flow
2027	0
2033	5250
2037	12500
2044	27750
2050	46000
2077	171300

Outlet3 Data, Name - Brownlee Gates

Elevation	Flow
1976	51500
1990	69000
2010	87500
2027	100500
2050	116000
2079	132500

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - OP-1\_Scenario3&4\_high

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - OP-1\_Scenario3&4\_high

IDay	Data	OrInflow	Dependent
1	12000	False	False
152	12000	False	False
153	8500	False	False
293	8500	False	False
294	13000	False	False
345	13000	False	False
346	12000	False	False
365	12000	False	False

Target\_Elev Data, Name - Proposed Ops High

IDay	Elevation	HardTarget
1	2076	0
7	2076	0
189	2076	0
243	2059	0
252	2059	0
253	2076	0
365	2076	0

Flood\_Elev Data, Name - H2077 all year

IDay	Elevation
------	-----------

1 2077  
365 2077

Min\_Elev Data, Name - H1976 all year  
IDay Elevation

1 1976  
365 1976

Level\_Fluct Data, Name - LF3 all yr  
IDay Weekday Weekend

			Hard	Spill
1	3	3	False	False
244	3	3	False	False
365	3	3	False	False

Level\_Rate Data, Name - None  
IDay Rate

Flashboard Data, Name - None  
Elevation Volume Trip Reset

Bypass Data, Name - None  
IDay Data OrInflow Destination

Ramp\_Rate Data, Name - None  
IDay UpRampDay UpRampHour DownRampDay DownRampHour Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 6, Name = Current Operations  
Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 34, Name = Current Operations  
Head Flow Eff

**IPC Proprietary Data**

Turbine Performance, ID = 47, Name = Unit 5 n  
Head Flow Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 5, Name = Unit 5 Current Ops  
gOutput            Eff                    Cap

**IPC Proprietary Data**

Generator Performance Data, ID = 6, Name = Units 1 - 4 Current Ops  
gOutput            Eff                    Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay                Unit

Min\_Unit Data, Name - None  
Head                Flow                    Eff                    CenterLine            Headloss  
GeneratorEff    OpStyle

Scenario Information for Oxbow

Physical Setting Conditions, Name - Current Operations

Res\_Storage Data, Name - CEQUAL RS Curve  
Elevation            Storage

1786.42	38536.44
1789.7	41746
1792.98	44954.86
1796.3	48465
1799.54	51975.63
1802.8	55731
1806.1	59487

Tailwater Data, Name - Current Operations  
Flow                Elevation

1	1490
---	------

Ramp\_Curve Data, Name - None  
Flow                Elevation

Outlet1 Data, Name - None  
Elevation            Flow

Outlet2 Data, Name - Current Operations  
Elevation            Flow

1755	0
1765	25000
1773	50000
1778	55000
1783	100000
1787	125000
1792	150000
1795	175000
1798	200000
1802	225000
1805	250000
1808	275000
1811	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1803

IDay	Elevation	HardTarget
1	1803	0
365	1803	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1805
365	1805

Min\_Elev Data, Name - H1795 all year

IDay	Elevation
1	1795
365	1795

Level\_Fluct Data, Name - LF5 all year

IDay	Weekday	Weekend	Hard	Spill
1	5	5	True	False
365	5	5	True	False



Level\_Rate Data, Name - None  
IDay Rate

Flashboard Data, Name - None  
Elevation Volume Trip Reset

Bypass Data, Name - Q100 all year  
IDay Data OrInflow Destination  
1 100 False 3  
365 100 False 3

Ramp\_Rate Data, Name - None  
IDay UpRampDay UpRampHour DownRampDay DownRampHour Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 8, Name = Current Operations  
Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 37, Name = Current Operations  
Head Flow Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 7, Name = Current Operations  
gOutput Eff Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay Unit

Min\_Unit Data, Name - None  
Head Flow Eff CenterLine Headloss  
GeneratorEff OpStyle

Scenario Information for Hells Canyon

Physical Setting Conditions, Name - Current Operation

Res\_Storage Data, Name - CEQUAL RS Curve

Elevation	Storage
1674.9	152701
1676.5	156419
1679.8	163855
1683.1	171642
1686.4	179429
1689.6	187475
1692.9	195521

Tailwater Data, Name - Current Operations

Flow	Elevation
6000	1467.98
7000	1468.91
8000	1469.68
9000	1470.34
12000	1471.91
14000	1472.77
18000	1474.1
20000	1474.89
24000	1476.1
28000	1477.21
30000	1477.74
35000	1478.98
40000	1480.14
44000	1481.01
48000	1481.84
54000	1483.01
60000	1484.09
65000	1484.92
72500	1486.06
75000	1486.41
80000	1487.08
85000	1487.68
90000	1488.24
95000	1488.73
100000	1489.18
105000	1489.57

Ramp\_Curve Data, Name - Johnson Bar rating curve

Flow	Elevation
0	2.2
3600	3
4570	3.5
5650	4
6899	4.5
8300	5

9797	5.5
11427	6
13173	6.5
14975	7
16876	7.5
18822	8
20810	8.5
22837	9
24901	9.5
27000	10
29066	10.5
31159	11
33277	11.5
35420	12
39770	13
41982	13.5
44213	14
48734	15
51023	15.5
53331	16
58000	17
60500	17.5

Outlet1 Data, Name - None  
Elevation      Flow

Outlet2 Data, Name - Current Operations  
Elevation      Flow

1600	0
1668	168000
1673	195000
1678	226000
1683	255000
1688	284000
1691	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	2	2

Operating Setting Conditions, Name - OP-1\_Scenario3\_high

Minimum Data, Name - OP-1\_Scenario3&4\_High

IDay	Data	OrInflow	Dependent
1	12000	False	False
152	12000	False	False
153	8500	False	False
293	8500	False	False
294	13000	False	False

345	13000	False	False
346	12000	False	False
365	12000	False	False

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1687

IDay	Elevation	HardTarget
------	-----------	------------

1	1687	0
365	1687	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
------	-----------

1	1688
365	1688

Min\_Elev Data, Name - 1683 all year

IDay	Elevation
------	-----------

1	1683
365	1683

Level\_Fluct Data, Name - LF5 all year

IDay	Weekday	Weekend	Hard	Spill
------	---------	---------	------	-------

1	5	5	False	False
365	5	5	False	False

Level\_Rate Data, Name - None

IDay	Rate
------	------

Flashboard Data, Name - None

Elevation	Volume	Trip	Reset
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Bypass Data, Name - None

IDay	Data	OrInflow	Destination
------	------	----------	-------------

Ramp\_Rate Data, Name - Proposed Ops

IDay	UpRampDay	UpRampHour	DownRampDay	DownRampHour	Type
Peak_Inside					

1	10	1	10	1	Stage
False					
90	10	1	10	1	Stage
False					
91	2.9	1	2.9	1	Stage
False					
273	2.9	1	2.9	1	Stage
False					

274	10	1	10	1	Stage
False					
293	10	1	10	1	Stage
False					
294	1	1	1	1	Stage
False					
345	1	1	1	1	Stage
False					
346	10	1	10	1	Stage
False					
365	10	1	10	1	Stage
False					

Withdrawal Data, Name - None  
 Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
 Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 11, Name = Current Operations  
 Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 40, Name = Current Operations  
 Head Flow Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 9, Name = Current Operations  
 gOutput Eff Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
 IDay Unit

Min\_Unit Data, Name - None  
 Head Flow Eff CenterLine Headloss  
 GeneratorEff OpStyle



Complete Scenario Data for Scenario—OP-1\_Scenario3\_low\_92 written out on 11/03/2004 10:15:47 AM

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Complete Scenario Data for Scenario - OP-1\_Scenario3\_low\_92  
 Written out on 11/03/2004 10:15:47 AM

System Misc. Name - Proposed	Ops Low	ForecastDays	ForecastAcr
Load_Shape_ID CarryOver	MaxPeak		
Fall_Chinook_ Flood_Control	Max_Discharge		
8	False	3	1
4	0		14

Load_Shape Data, Name - FP01	SP HL pricing
IMonth	Period Duration Price
1	1 6
1	2 0
1	3 6
1	4 5
1	5 5
1	6 0
1	7 2
1	8 7
1	9 6
1	10 4
1	11 5
1	12 2
2	1 6
2	2 0
2	3 6
2	4 5
2	5 5
2	6 0
2	7 2
2	8 7
2	9 6
2	10 4
2	11 5
2	12 2
3	1 6
3	2 0
3	3 6
3	4 5
3	5 5
3	6 0
3	7 2
3	8 7
3	9 6
3	10 4
3	11 5
3	12 2
4	1 6
4	2 0
4	3 8
4	4 0
4	5 8
4	6 0
4	7 2

4	8	7
4	9	8
4	10	0
4	11	7
4	12	2
5	1	6
5	2	0
5	3	8
5	4	0
5	5	8
5	6	0
5	7	2
5	8	7
5	9	8
5	10	0
5	11	7
5	12	2
6	1	6
6	2	0
6	3	8
6	4	0
6	5	8
6	6	0
6	7	2
6	8	7
6	9	8
6	10	0
6	11	7
6	12	2
7	1	6
7	2	0
7	3	16
7	4	0
7	5	0
7	6	0
7	7	2
7	8	8
7	9	14
7	10	0
7	11	0
7	12	2
8	1	6
8	2	0
8	3	16
8	4	0
8	5	0
8	6	0
8	7	2
8	8	8
8	9	14
8	10	0
8	11	0
8	12	2
9	1	6
9	2	0
9	3	16
9	4	0

9	5	0
9	6	0
9	7	2
9	8	8
9	9	14
9	10	0
9	11	0
9	12	2
10	1	6
10	2	0
10	3	6
10	4	4
10	5	6
10	6	0
10	7	2
10	8	7
10	9	6
10	10	4
10	11	5
10	12	2
11	1	6
11	2	0
11	3	6
11	4	4
11	5	6
11	6	0
11	7	2
11	8	7
11	9	6
11	10	4
11	11	5
11	12	2
12	1	6
12	2	0
12	3	6
12	4	4
12	5	6
12	6	0
12	7	2
12	8	7
12	9	6
12	10	4
12	11	5
12	12	2

Fall\_Chinook Data, Name - Proposed Ops Low

Draw_Start	Refill_Start	Refill_End	Max_Discharge	Minimum_Max
Maximum_Max	Target_Elevat	Refill_Elevat	Allow_Peak	
252	294	345	9000	0
0	2076	False		0

Flood\_Control Data, Name - RC V2000

IDay	Dalles_Foreca	Brownlee_Fore	Req_Volume
59	75	3	0
59	75	4	200

59	75	5	300
59	75	6	400
59	85	3	150
59	85	4	300
59	85	5	350
59	85	6	400
59	95	3	200
59	95	4	300
59	95	5	350
59	95	6	400
59	105	3	300
59	105	4	400
59	105	5	400
59	105	6	400
59	115	3	300
59	115	4	400
59	115	5	500
59	115	6	500
90	75	3	0
90	75	4	100
90	75	5	200
90	75	6	350
90	85	3	100
90	85	4	300
90	85	5	400
90	85	6	450
90	95	3	150
90	95	4	300
90	95	5	400
90	95	6	500
90	105	3	200
90	105	4	425
90	105	5	475
90	105	6	500
90	115	3	250
90	115	4	450
90	115	5	600
90	115	6	750
105	75	3	0
105	75	4	50
105	75	5	150
105	75	6	250
105	85	3	50
105	85	4	250
105	85	5	400
105	85	6	500
105	95	3	100
105	95	4	300
105	95	5	425
105	95	6	550
105	105	3	150
105	105	4	450
105	105	5	525
105	105	6	600
105	115	3	200
105	115	4	500
105	115	5	650

105	115	6	850
120	75	3	0
120	75	4	0
120	75	5	50
120	75	6	150
120	85	3	0
120	85	4	250
120	85	5	400
120	85	6	500
120	95	3	50
120	95	4	300
120	95	5	450
120	95	6	600
120	105	3	100
120	105	4	450
120	105	5	550
120	105	6	700
120	115	3	150
120	115	4	550
120	115	5	750
120	115	6	980

Max\_Discharge Data, Name - None  
IDay Flow

Scenario Information for Brownlee

Physical Setting Conditions, Name - Current Ops 97b

Res\_Storage Data, Name - CEQUAL97b

Elevation	Storage
1973.2	432247
1979.8	475263
1983.2	498341
1986.5	521420
1989.8	546048
1993.1	570676
1996.5	596713
1999.8	622750
2003.1	650212
2006.5	677675
2009.8	706573
2013.1	735471
2016.5	765566
2019.8	795660
2023.1	827202
2029.8	891862
2033.1	924980
2036.4	959727
2039.8	994474

2043.1	1030689
2046.4	1066905
2049.8	1104803
2053.1	1142701
2056.4	1182254
2059.7	1221807
2063.1	1263344
2066.4	1304880
2069.7	1348494
2073.06	1392108
2076.4	1437212
2079.7	1482317

Tailwater Data, Name - Current Operations  
Flow                      Elevation

500	0.32
1000	0.38
2000	0.51
3000	0.63
4000	0.75
5000	0.87
6000	1
7000	1.11
8000	1.23
9000	1.35
10000	1.47
11000	1.59
12000	1.7
13000	1.82
14000	1.93
15000	2.05
20000	2.61
25000	3.15
30000	3.67
35000	4.18
40000	4.66
45000	5.13
50000	5.58
55000	6
60000	6.42
65000	6.81
70000	7.18
75000	7.54
80000	7.87
85000	8.19
90000	8.49
95000	8.77
100000	9.03

Ramp\_Curve Data, Name - None  
Flow                      Elevation

Outlet1 Data, Name - None  
Elevation              Flow

Outlet2 Data, Name - Current Operations

Elevation	Flow
2027	0
2033	5250
2037	12500
2044	27750
2050	46000
2077	171300

Outlet3 Data, Name - Brownlee Gates

Elevation	Flow
1976	51500
1990	69000
2010	87500
2027	100500
2050	116000
2079	132500

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - OP-1\_Scenario3&4\_92

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
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Base Data, Name - OP-1\_SCENARIO3\_1992

IDay	Data	OrInflow	Dependent
1	8500	False	False
20	8500	False	False
21	8613	False	False
22	8712	False	False
23	8539	False	False
24	8500	False	False
37	8500	False	False
38	8284	False	False
39	8500	False	False
151	8500	False	False
152	5562	False	False
153	5156.333	False	False
154	5233.333	False	False
155	5119.667	False	False
156	5193.667	False	False
157	4977	False	False
158	4866	False	False
159	4728.667	False	False
160	4789.333	False	False
161	4821.667	False	False
162	5016	False	False
163	4981	False	False

164	5214.667	False	False
165	5660.667	False	False
166	6080.333	False	False
167	6887	False	False
168	7546.667	False	False
169	8311	False	False
170	8325	False	False
171	8337	False	False
172	8281	False	False
173	7673	False	False
174	7195.667	False	False
175	6818.333	False	False
176	6184.667	False	False
177	5722.333	False	False
178	5461	False	False
179	5397.333	False	False
180	5840.667	False	False
181	6210	False	False
182	6666.333	False	False
183	7293	False	False
184	8005.667	False	False
185	8355	False	False
186	8366	False	False
187	8365	False	False
188	8374	False	False
189	8387	False	False
190	7742	False	False
191	7339	False	False
192	6760.333	False	False
193	6391	False	False
194	6163.667	False	False
195	6114	False	False
196	6212	False	False
197	6177.667	False	False
198	5962	False	False
199	5836.333	False	False
200	5628.667	False	False
201	5662.667	False	False
202	5700.667	False	False
203	5738	False	False
204	5813.667	False	False
205	5721.667	False	False
206	5885.667	False	False
207	5983.333	False	False
208	6089.333	False	False
209	6056.667	False	False
210	5931	False	False
211	5813	False	False
212	5561.333	False	False
213	5328.9	False	False
214	5233.533	False	False
215	5215.9	False	False
216	5314.467	False	False
217	5246.5	False	False
218	5250.267	False	False
219	5133.5	False	False
220	5032.8	False	False



221	5001.833	False	False
222	4955.467	False	False
223	4969.333	False	False
224	5029.967	False	False
225	5075.933	False	False
226	5242.767	False	False
227	5259.667	False	False
228	5472.433	False	False
229	5392.033	False	False
230	5511.233	False	False
231	5490.1	False	False
232	5536.033	False	False
233	5550.7	False	False
234	5626.833	False	False
235	5626.133	False	False
236	5429.5	False	False
237	5413.5	False	False
238	5671.933	False	False
239	6141.7	False	False
240	6108.333	False	False
241	6076.467	False	False
242	6044.8	False	False
243	6112.9	False	False
244	6116.467	False	False
245	5998.1	False	False
246	6035.967	False	False
247	5993.967	False	False
248	6019.833	False	False
249	5936	False	False
250	6005.667	False	False
251	6237.667	False	False
252	6494.667	False	False
253	6668.667	False	False
254	6805.2	False	False
255	6733	False	False
256	6781	False	False
257	6598.667	False	False
258	6807.333	False	False
259	7017.333	False	False
260	7290.667	False	False
261	7394.667	False	False
262	7334	False	False
263	7099	False	False
264	7158.167	False	False
265	7366.633	False	False
266	7240.533	False	False
267	7131	False	False
268	6857.667	False	False
269	7111.333	False	False
270	7195.667	False	False
271	7374.667	False	False
272	7760	False	False
273	7762.333	False	False
274	7891.667	False	False
275	7759.667	False	False
276	8023.667	False	False
277	7669	False	False

278	7468.667	False	False
279	7191.667	False	False
280	7309.333	False	False
281	7554.333	False	False
282	7712.667	False	False
283	8204.333	False	False
284	8301	False	False
285	8461	False	False
286	8500	False	False
293	8500	False	False
294	9000	False	False
345	9000	False	False
346	8500	False	False
347	8412	False	False
348	8404	False	False
349	8406	False	False
350	8411	False	False
351	8405	False	False
352	8405	False	False
353	8551	False	False
354	8573	False	False
355	8540	False	False
356	8400	False	False
357	8400	False	False
358	8401	False	False
359	8408	False	False
360	8391	False	False
361	8392	False	False
362	8453	False	False
363	8500	False	False
365	8500	False	False

Target\_Elev Data, Name - Proposed Ops Low  
IDay                    Elevation                    HardTarget

1	2076	0
7	2076	0
121	2076	0
189	2076	0
243	2072	0
252	2072	0
365	2076	0

Flood\_Elev Data, Name - H2077 all year  
IDay                    Elevation

1	2077
365	2077

Min\_Elev Data, Name - H1976 all year  
IDay                    Elevation

1	1976
365	1976

Level\_Fluct Data, Name - LF3 all yr  
IDay                    Weekday                    Weekend                    Hard                    Spill

1	3	3	False	False
244	3	3	False	False
365	3	3	False	False

Level\_Rate Data, Name - None  
 IDay Rate

Flashboard Data, Name - None  
 Elevation Volume Trip Reset

Bypass Data, Name - None  
 IDay Data OrInflow Destination

Ramp\_Rate Data, Name - None  
 IDay UpRampDay UpRampHour DownRampDay DownRampHour Type  
 Peak\_Inside

Withdrawal Data, Name - None  
 Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
 Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 6, Name = Current Operations  
 Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 34, Name = Current Operations  
 Head Flow Eff

**IPC Proprietary Data**

Turbine Performance, ID = 47, Name = Unit 5 n  
 Head Flow Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 5, Name = Unit 5 Current Ops  
 gOutput Eff Cap

**IPC Proprietary Data**

Generator Performance Data, ID = 6, Name = Units 1 - 4 Current Ops  
 gOutput Eff Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay Unit

Min\_Unit Data, Name - None  
Head Flow Eff CenterLine Headloss  
GeneratorEff OpStyle

Scenario Information for Oxbow

Physical Setting Conditions, Name - Current Operations

Res\_Storage Data, Name - CEQUAL RS Curve

Elevation	Storage
1786.42	38536.44
1789.7	41746
1792.98	44954.86
1796.3	48465
1799.54	51975.63
1802.8	55731
1806.1	59487

Tailwater Data, Name - Current Operations

Flow	Elevation
1	1490

Ramp\_Curve Data, Name - None

Flow	Elevation
------	-----------

Outlet1 Data, Name - None

Elevation	Flow
-----------	------

Outlet2 Data, Name - Current Operations

Elevation	Flow
1755	0
1765	25000
1773	50000
1778	55000
1783	100000
1787	125000
1792	150000
1795	175000
1798	200000
1802	225000
1805	250000

1808 275000  
1811 300000

Outlet3 Data, Name - None  
Elevation Flow

Plant\_Options Data, Name - Current Operations  
Time\_Delay Min\_Op\_Flow Min\_RC\_Flow Op\_Type PeakorMax  
0 0 0 1 2

Operating Setting Conditions, Name - Proposed Ops

Minimum Data, Name - None  
IDay Data OrInflow Dependent

Base Data, Name - None  
IDay Data OrInflow Dependent

Target\_Elev Data, Name - H1803  
IDay Elevation HardTarget  
1 1803 0  
365 1803 0

Flood\_Elev Data, Name - Current Operations  
IDay Elevation  
1 1805  
365 1805

Min\_Elev Data, Name - H1795 all year  
IDay Elevation  
1 1795  
365 1795

Level\_Fluct Data, Name - LF5 all year  
IDay Weekday Weekend Hard Spill  
1 5 5 True False  
365 5 5 True False

Level\_Rate Data, Name - None  
IDay Rate

Flashboard Data, Name - None  
Elevation Volume Trip Reset

Bypass Data, Name - Q100 all year  
IDay Data OrInflow Destination

1	100	False	3
365	100	False	3

Ramp\_Rate Data, Name - None

IDay	UpRampDay	UpRampHour	DownRampDay	DownRampHour	Type
Peak_Inside					

Withdrawal Data, Name - None

Withdrawal	Return
------------	--------

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations

Unit_No	Head_Loss_ID	Generator_Per	Turbine_Perf_	Gate_Leakage
---------	--------------	---------------	---------------	--------------

**IPC Proprietary Data**

Head Loss Data, ID = 8, Name = Current Operations

Unit_No	Unit_HL	Common_HL	Use_Com2	Max_Unit
---------	---------	-----------	----------	----------

**IPC Proprietary Data**

Turbine Performance, ID = 37, Name = Current Operations

Head	Flow	Eff
------	------	-----

**IPC Proprietary Data**

Generator Performance Data, ID = 7, Name = Current Operations

gOutput	Eff	Cap
---------	-----	-----

**IPC Proprietary Data**

Maintenance Data, Name - None

IDay	Unit
------	------

Min\_Unit Data, Name - None

Head	Flow	Eff	CenterLine	Headloss
GeneratorEff	OpStyle			

Scenario Information for Hells Canyon

Physical Setting Conditions, Name - Current Operation

Res\_Storage Data, Name - CEQUAL RS Curve

Elevation	Storage
-----------	---------

1674.9	152701
--------	--------

1676.5	156419
--------	--------

1679.8	163855
1683.1	171642
1686.4	179429
1689.6	187475
1692.9	195521

Tailwater Data, Name - Current Operations

Flow	Elevation
------	-----------

6000	1467.98
7000	1468.91
8000	1469.68
9000	1470.34
12000	1471.91
14000	1472.77
18000	1474.1
20000	1474.89
24000	1476.1
28000	1477.21
30000	1477.74
35000	1478.98
40000	1480.14
44000	1481.01
48000	1481.84
54000	1483.01
60000	1484.09
65000	1484.92
72500	1486.06
75000	1486.41
80000	1487.08
85000	1487.68
90000	1488.24
95000	1488.73
100000	1489.18
105000	1489.57

Ramp\_Curve Data, Name - Johnson Bar rating curve

Flow	Elevation
------	-----------

0	2.2
3600	3
4570	3.5
5650	4
6899	4.5
8300	5
9797	5.5
11427	6
13173	6.5
14975	7
16876	7.5
18822	8
20810	8.5
22837	9
24901	9.5
27000	10
29066	10.5
31159	11

33277	11.5
35420	12
39770	13
41982	13.5
44213	14
48734	15
51023	15.5
53331	16
58000	17
60500	17.5

Outlet1 Data, Name - None  
Elevation      Flow

Outlet2 Data, Name - Current Operations  
Elevation      Flow

1600	0
1668	168000
1673	195000
1678	226000
1683	255000
1688	284000
1691	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	2	2

Operating Setting Conditions, Name - OP-1\_Scenario3\_low\_92

Minimum Data, Name - OP-1\_Scenario3\_92

IDay	Data	OrInflow	Dependent
1	8500	False	False
20	8500	False	False
21	8710	False	False
22	8810	False	False
23	8640	False	False
24	8500	False	False
37	8500	False	False
38	8520	False	False
39	8500	False	False
151	8500	False	False
152	5801	False	False
153	5376.333	False	False
154	5433.333	False	False
155	5299.667	False	False
156	5356.667	False	False
157	5125	False	False
158	5002	False	False



159	4855.667	False	False
160	4907.333	False	False
161	4923.667	False	False
162	5118	False	False
163	5082	False	False
164	5445.667	False	False
165	5874.667	False	False
166	6301.333	False	False
167	7143	False	False
168	7766.667	False	False
169	8500	False	False
170	8500	False	False
171	8500	False	False
172	8426	False	False
173	7804	False	False
174	7303.667	False	False
175	6913.333	False	False
176	6266.667	False	False
177	5817.333	False	False
178	5562	False	False
179	5503.333	False	False
180	6009.667	False	False
181	6368	False	False
182	6837.333	False	False
183	7463	False	False
184	8164.667	False	False
185	8500	False	False
186	8500	False	False
187	8500	False	False
188	8500	False	False
189	8500	False	False
190	7843	False	False
191	7428	False	False
192	6839.333	False	False
193	6468	False	False
194	6235.667	False	False
195	6176	False	False
196	6271	False	False
197	6231.667	False	False
198	6012	False	False
199	5884.333	False	False
200	5676.667	False	False
201	5711.667	False	False
202	5751.667	False	False
203	5788	False	False
204	5869.667	False	False
205	5778.667	False	False
206	5938.667	False	False
207	6031.333	False	False
208	6136.333	False	False
209	6098.667	False	False
210	5971	False	False
211	5851	False	False
212	5598.333	False	False
213	5364	False	False
214	5267.333	False	False
215	5250	False	False

216	5348.667	False	False
217	5279	False	False
218	5283.667	False	False
219	5167	False	False
220	5066	False	False
221	5035.333	False	False
222	4988.667	False	False
223	5002.333	False	False
224	5062.667	False	False
225	5108.333	False	False
226	5273.667	False	False
227	5290.667	False	False
228	5505.333	False	False
229	5426.333	False	False
230	5543.333	False	False
231	5522	False	False
232	5566.333	False	False
233	5581	False	False
234	5657.333	False	False
235	5659.333	False	False
236	5464	False	False
237	5447	False	False
238	5704.333	False	False
239	6174	False	False
240	6140.333	False	False
241	6107.667	False	False
242	6075	False	False
243	6144	False	False
244	6147.667	False	False
245	6029	False	False
246	6066.667	False	False
247	6026.667	False	False
248	6054.333	False	False
249	5972	False	False
250	6041.667	False	False
251	6273.667	False	False
252	6530.667	False	False
253	6703.667	False	False
254	6840	False	False
255	6769	False	False
256	6817	False	False
257	6635.667	False	False
258	6844.333	False	False
259	7054.333	False	False
260	7326.667	False	False
261	7431.667	False	False
262	7370	False	False
263	7134	False	False
264	7192.667	False	False
265	7400.333	False	False
266	7274.333	False	False
267	7166	False	False
268	6896.667	False	False
269	7150.333	False	False
270	7236.667	False	False
271	7417.667	False	False
272	7801	False	False

273	7801.333	False	False
274	7929.667	False	False
275	7796.667	False	False
276	8064.667	False	False
277	7713	False	False
278	7511.667	False	False
279	7234.667	False	False
280	7352.333	False	False
281	7596.333	False	False
282	7755.667	False	False
283	8246.333	False	False
284	8341	False	False
285	8500	False	False
286	8500	False	False
293	8500	False	False
294	9000	False	False
345	9000	False	False
346	8500	False	False
347	8500	False	False
348	8500	False	False
349	8500	False	False
350	8500	False	False
351	8500	False	False
352	8500	False	False
353	8630	False	False
354	8680	False	False
355	8650	False	False
356	8500	False	False
357	8500	False	False
358	8500	False	False
359	8500	False	False
360	8500	False	False
361	8500	False	False
362	8560	False	False
363	8500	False	False
365	8500	False	False

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1687

IDay	Elevation	HardTarget
1	1687	0
365	1687	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1688
365	1688

Min\_Elev Data, Name - 1683 all year

IDay	Elevation
1	1683

365 1683

Level\_Fluct Data, Name - LF5 all year

IDay	Weekday	Weekend	Hard	Spill
1	5	5	False	False
365	5	5	False	False

Level\_Rate Data, Name - None

IDay Rate

Flashboard Data, Name - None

Elevation Volume Trip Reset

Bypass Data, Name - None

IDay Data OrInflow Destination

Ramp\_Rate Data, Name - Proposed Ops

IDay	UpRampDay	UpRampHour	DownRampDay	DownRampHour	Type
1	10	1	10	1	Stage
False					
90	10	1	10	1	Stage
False					
91	2.9	1	2.9	1	Stage
False					
273	2.9	1	2.9	1	Stage
False					
274	10	1	10	1	Stage
False					
293	10	1	10	1	Stage
False					
294	1	1	1	1	Stage
False					
345	1	1	1	1	Stage
False					
346	10	1	10	1	Stage
False					
365	10	1	10	1	Stage
False					

Withdrawal Data, Name - None

Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations

Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 11, Name = Current Operations

Unit\_No            Unit\_HL            Common\_HL            Use\_Com2            Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 40, Name = Current Operations  
Head            Flow            Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 9, Name = Current Operations  
gOutput            Eff            Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay            Unit

Min\_Unit Data, Name - None  
Head            Flow            Eff            CenterLine            Headloss  
GeneratorEff    OpStyle



Complete Scenario Data for Scenario—OP-1\_Scenario3\_low\_94 written out on 11/03/2004 10:16:36 AM

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Complete Scenario Data for Scenario - OP-1\_Scenario3\_low\_94  
 Written out on 11/03/2004 10:16:36 AM

System Misc. Name - Proposed	Ops Low	ForecastDays	ForecastAcr
Load_Shape_ID CarryOver	MaxPeak		
Fall_Chinook_ Flood_Control	Max_Discharge		
8	False	3	1
4	0		14

Load_Shape Data, Name - FP01	SP HL pricing
IMonth	Period Duration Price
1	1 6
1	2 0
1	3 6
1	4 5
1	5 5
1	6 0
1	7 2
1	8 7
1	9 6
1	10 4
1	11 5
1	12 2
2	1 6
2	2 0
2	3 6
2	4 5
2	5 5
2	6 0
2	7 2
2	8 7
2	9 6
2	10 4
2	11 5
2	12 2
3	1 6
3	2 0
3	3 6
3	4 5
3	5 5
3	6 0
3	7 2
3	8 7
3	9 6
3	10 4
3	11 5
3	12 2
4	1 6
4	2 0
4	3 8
4	4 0
4	5 8
4	6 0
4	7 2

4	8	7
4	9	8
4	10	0
4	11	7
4	12	2
5	1	6
5	2	0
5	3	8
5	4	0
5	5	8
5	6	0
5	7	2
5	8	7
5	9	8
5	10	0
5	11	7
5	12	2
6	1	6
6	2	0
6	3	8
6	4	0
6	5	8
6	6	0
6	7	2
6	8	7
6	9	8
6	10	0
6	11	7
6	12	2
7	1	6
7	2	0
7	3	16
7	4	0
7	5	0
7	6	0
7	7	2
7	8	8
7	9	14
7	10	0
7	11	0
7	12	2
8	1	6
8	2	0
8	3	16
8	4	0
8	5	0
8	6	0
8	7	2
8	8	8
8	9	14
8	10	0
8	11	0
8	12	2
9	1	6
9	2	0
9	3	16
9	4	0

9	5	0
9	6	0
9	7	2
9	8	8
9	9	14
9	10	0
9	11	0
9	12	2
10	1	6
10	2	0
10	3	6
10	4	4
10	5	6
10	6	0
10	7	2
10	8	7
10	9	6
10	10	4
10	11	5
10	12	2
11	1	6
11	2	0
11	3	6
11	4	4
11	5	6
11	6	0
11	7	2
11	8	7
11	9	6
11	10	4
11	11	5
11	12	2
12	1	6
12	2	0
12	3	6
12	4	4
12	5	6
12	6	0
12	7	2
12	8	7
12	9	6
12	10	4
12	11	5
12	12	2

Fall\_Chinook Data, Name - Proposed Ops Low

Draw_Start	Refill_Start	Refill_End	Max_Discharge	Minimum_Max
Maximum_Max	Target_Elevat	Refill_Elevat	Allow_Peak	
252	294	345	9000	0
0	2076	False		0

Flood\_Control Data, Name - RC V2000

IDay	Dalles_Foreca	Brownlee_Fore	Req_Volume
59	75	3	0
59	75	4	200

59	75	5	300
59	75	6	400
59	85	3	150
59	85	4	300
59	85	5	350
59	85	6	400
59	95	3	200
59	95	4	300
59	95	5	350
59	95	6	400
59	105	3	300
59	105	4	400
59	105	5	400
59	105	6	400
59	115	3	300
59	115	4	400
59	115	5	500
59	115	6	500
90	75	3	0
90	75	4	100
90	75	5	200
90	75	6	350
90	85	3	100
90	85	4	300
90	85	5	400
90	85	6	450
90	95	3	150
90	95	4	300
90	95	5	400
90	95	6	500
90	105	3	200
90	105	4	425
90	105	5	475
90	105	6	500
90	115	3	250
90	115	4	450
90	115	5	600
90	115	6	750
105	75	3	0
105	75	4	50
105	75	5	150
105	75	6	250
105	85	3	50
105	85	4	250
105	85	5	400
105	85	6	500
105	95	3	100
105	95	4	300
105	95	5	425
105	95	6	550
105	105	3	150
105	105	4	450
105	105	5	525
105	105	6	600
105	115	3	200
105	115	4	500
105	115	5	650

105	115	6	850
120	75	3	0
120	75	4	0
120	75	5	50
120	75	6	150
120	85	3	0
120	85	4	250
120	85	5	400
120	85	6	500
120	95	3	50
120	95	4	300
120	95	5	450
120	95	6	600
120	105	3	100
120	105	4	450
120	105	5	550
120	105	6	700
120	115	3	150
120	115	4	550
120	115	5	750
120	115	6	980

Max\_Discharge Data, Name - None  
IDay Flow

Scenario Information for Brownlee

Physical Setting Conditions, Name - Current Ops 97b

Res\_Storage Data, Name - CEQUAL97b

Elevation	Storage
1973.2	432247
1979.8	475263
1983.2	498341
1986.5	521420
1989.8	546048
1993.1	570676
1996.5	596713
1999.8	622750
2003.1	650212
2006.5	677675
2009.8	706573
2013.1	735471
2016.5	765566
2019.8	795660
2023.1	827202
2029.8	891862
2033.1	924980
2036.4	959727
2039.8	994474

2043.1	1030689
2046.4	1066905
2049.8	1104803
2053.1	1142701
2056.4	1182254
2059.7	1221807
2063.1	1263344
2066.4	1304880
2069.7	1348494
2073.06	1392108
2076.4	1437212
2079.7	1482317

Tailwater Data, Name - Current Operations  
Flow                      Elevation

500	0.32
1000	0.38
2000	0.51
3000	0.63
4000	0.75
5000	0.87
6000	1
7000	1.11
8000	1.23
9000	1.35
10000	1.47
11000	1.59
12000	1.7
13000	1.82
14000	1.93
15000	2.05
20000	2.61
25000	3.15
30000	3.67
35000	4.18
40000	4.66
45000	5.13
50000	5.58
55000	6
60000	6.42
65000	6.81
70000	7.18
75000	7.54
80000	7.87
85000	8.19
90000	8.49
95000	8.77
100000	9.03

Ramp\_Curve Data, Name - None  
Flow                      Elevation

Outlet1 Data, Name - None  
Elevation              Flow

Outlet2 Data, Name - Current Operations

Elevation	Flow
2027	0
2033	5250
2037	12500
2044	27750
2050	46000
2077	171300

Outlet3 Data, Name - Brownlee Gates

Elevation	Flow
1976	51500
1990	69000
2010	87500
2027	100500
2050	116000
2079	132500

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - OP-1\_Scenario3&4\_92

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
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Base Data, Name - OP-1\_SCENARIO3\_1992

IDay	Data	OrInflow	Dependent
1	8500	False	False
20	8500	False	False
21	8613	False	False
22	8712	False	False
23	8539	False	False
24	8500	False	False
37	8500	False	False
38	8284	False	False
39	8500	False	False
151	8500	False	False
152	5562	False	False
153	5156.333	False	False
154	5233.333	False	False
155	5119.667	False	False
156	5193.667	False	False
157	4977	False	False
158	4866	False	False
159	4728.667	False	False
160	4789.333	False	False
161	4821.667	False	False
162	5016	False	False
163	4981	False	False

164	5214.667	False	False
165	5660.667	False	False
166	6080.333	False	False
167	6887	False	False
168	7546.667	False	False
169	8311	False	False
170	8325	False	False
171	8337	False	False
172	8281	False	False
173	7673	False	False
174	7195.667	False	False
175	6818.333	False	False
176	6184.667	False	False
177	5722.333	False	False
178	5461	False	False
179	5397.333	False	False
180	5840.667	False	False
181	6210	False	False
182	6666.333	False	False
183	7293	False	False
184	8005.667	False	False
185	8355	False	False
186	8366	False	False
187	8365	False	False
188	8374	False	False
189	8387	False	False
190	7742	False	False
191	7339	False	False
192	6760.333	False	False
193	6391	False	False
194	6163.667	False	False
195	6114	False	False
196	6212	False	False
197	6177.667	False	False
198	5962	False	False
199	5836.333	False	False
200	5628.667	False	False
201	5662.667	False	False
202	5700.667	False	False
203	5738	False	False
204	5813.667	False	False
205	5721.667	False	False
206	5885.667	False	False
207	5983.333	False	False
208	6089.333	False	False
209	6056.667	False	False
210	5931	False	False
211	5813	False	False
212	5561.333	False	False
213	5328.9	False	False
214	5233.533	False	False
215	5215.9	False	False
216	5314.467	False	False
217	5246.5	False	False
218	5250.267	False	False
219	5133.5	False	False
220	5032.8	False	False



221	5001.833	False	False
222	4955.467	False	False
223	4969.333	False	False
224	5029.967	False	False
225	5075.933	False	False
226	5242.767	False	False
227	5259.667	False	False
228	5472.433	False	False
229	5392.033	False	False
230	5511.233	False	False
231	5490.1	False	False
232	5536.033	False	False
233	5550.7	False	False
234	5626.833	False	False
235	5626.133	False	False
236	5429.5	False	False
237	5413.5	False	False
238	5671.933	False	False
239	6141.7	False	False
240	6108.333	False	False
241	6076.467	False	False
242	6044.8	False	False
243	6112.9	False	False
244	6116.467	False	False
245	5998.1	False	False
246	6035.967	False	False
247	5993.967	False	False
248	6019.833	False	False
249	5936	False	False
250	6005.667	False	False
251	6237.667	False	False
252	6494.667	False	False
253	6668.667	False	False
254	6805.2	False	False
255	6733	False	False
256	6781	False	False
257	6598.667	False	False
258	6807.333	False	False
259	7017.333	False	False
260	7290.667	False	False
261	7394.667	False	False
262	7334	False	False
263	7099	False	False
264	7158.167	False	False
265	7366.633	False	False
266	7240.533	False	False
267	7131	False	False
268	6857.667	False	False
269	7111.333	False	False
270	7195.667	False	False
271	7374.667	False	False
272	7760	False	False
273	7762.333	False	False
274	7891.667	False	False
275	7759.667	False	False
276	8023.667	False	False
277	7669	False	False

278	7468.667	False	False
279	7191.667	False	False
280	7309.333	False	False
281	7554.333	False	False
282	7712.667	False	False
283	8204.333	False	False
284	8301	False	False
285	8461	False	False
286	8500	False	False
293	8500	False	False
294	9000	False	False
345	9000	False	False
346	8500	False	False
347	8412	False	False
348	8404	False	False
349	8406	False	False
350	8411	False	False
351	8405	False	False
352	8405	False	False
353	8551	False	False
354	8573	False	False
355	8540	False	False
356	8400	False	False
357	8400	False	False
358	8401	False	False
359	8408	False	False
360	8391	False	False
361	8392	False	False
362	8453	False	False
363	8500	False	False
365	8500	False	False

Target\_Elev Data, Name - Proposed Ops Low  
IDay                    Elevation                    HardTarget

1	2076	0
7	2076	0
121	2076	0
189	2076	0
243	2072	0
252	2072	0
365	2076	0

Flood\_Elev Data, Name - H2077 all year  
IDay                    Elevation

1	2077
365	2077

Min\_Elev Data, Name - H1976 all year  
IDay                    Elevation

1	1976
365	1976

Level\_Fluct Data, Name - LF3 all yr  
IDay                    Weekday                    Weekend                    Hard                    Spill

1	3	3	False	False
244	3	3	False	False
365	3	3	False	False

Level\_Rate Data, Name - None  
 IDay Rate

Flashboard Data, Name - None  
 Elevation Volume Trip Reset

Bypass Data, Name - None  
 IDay Data OrInflow Destination

Ramp\_Rate Data, Name - None  
 IDay UpRampDay UpRampHour DownRampDay DownRampHour Type  
 Peak\_Inside

Withdrawal Data, Name - None  
 Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
 Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 6, Name = Current Operations  
 Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 34, Name = Current Operations  
 Head Flow Eff

**IPC Proprietary Data**

Turbine Performance, ID = 47, Name = Unit 5 n  
 Head Flow Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 5, Name = Unit 5 Current Ops  
 gOutput Eff Cap

**IPC Proprietary Data**

Generator Performance Data, ID = 6, Name = Units 1 - 4 Current Ops  
 gOutput Eff Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay Unit

Min\_Unit Data, Name - None  
Head Flow Eff CenterLine Headloss  
GeneratorEff OpStyle

Scenario Information for Oxbow

Physical Setting Conditions, Name - Current Operations

Res\_Storage Data, Name - CEQUAL RS Curve

Elevation	Storage
1786.42	38536.44
1789.7	41746
1792.98	44954.86
1796.3	48465
1799.54	51975.63
1802.8	55731
1806.1	59487

Tailwater Data, Name - Current Operations

Flow	Elevation
1	1490

Ramp\_Curve Data, Name - None

Flow	Elevation
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Outlet1 Data, Name - None

Elevation	Flow
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Outlet2 Data, Name - Current Operations

Elevation	Flow
1755	0
1765	25000
1773	50000
1778	55000
1783	100000
1787	125000
1792	150000
1795	175000
1798	200000
1802	225000
1805	250000

1808 275000  
1811 300000

Outlet3 Data, Name - None  
Elevation Flow

Plant\_Options Data, Name - Current Operations  
Time\_Delay Min\_Op\_Flow Min\_RC\_Flow Op\_Type PeakorMax  
0 0 0 1 2

Operating Setting Conditions, Name - Proposed Ops

Minimum Data, Name - None  
IDay Data OrInflow Dependent

Base Data, Name - None  
IDay Data OrInflow Dependent

Target\_Elev Data, Name - H1803  
IDay Elevation HardTarget  
1 1803 0  
365 1803 0

Flood\_Elev Data, Name - Current Operations  
IDay Elevation  
1 1805  
365 1805

Min\_Elev Data, Name - H1795 all year  
IDay Elevation  
1 1795  
365 1795

Level\_Fluct Data, Name - LF5 all year  
IDay Weekday Weekend Hard Spill  
1 5 5 True False  
365 5 5 True False

Level\_Rate Data, Name - None  
IDay Rate

Flashboard Data, Name - None  
Elevation Volume Trip Reset

Bypass Data, Name - Q100 all year  
IDay Data OrInflow Destination

1	100	False	3
365	100	False	3

Ramp\_Rate Data, Name - None

IDay	UpRampDay	UpRampHour	DownRampDay	DownRampHour	Type
Peak_Inside					

Withdrawal Data, Name - None

Withdrawal	Return
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Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations

Unit_No	Head_Loss_ID	Generator_Per	Turbine_Perf_	Gate_Leakage
---------	--------------	---------------	---------------	--------------

**IPC Proprietary Data**

Head Loss Data, ID = 8, Name = Current Operations

Unit_No	Unit_HL	Common_HL	Use_Com2	Max_Unit
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**IPC Proprietary Data**

Turbine Performance, ID = 37, Name = Current Operations

Head	Flow	Eff
------	------	-----

**IPC Proprietary Data**

Generator Performance Data, ID = 7, Name = Current Operations

gOutput	Eff	Cap
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**IPC Proprietary Data**

Maintenance Data, Name - None

IDay	Unit
------	------

Min\_Unit Data, Name - None

Head	Flow	Eff	CenterLine	Headloss
GeneratorEff	OpStyle			

Scenario Information for Hells Canyon

Physical Setting Conditions, Name - Current Operation

Res\_Storage Data, Name - CEQUAL RS Curve

Elevation	Storage
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1674.9	152701
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1676.5	156419
--------	--------

1679.8	163855
1683.1	171642
1686.4	179429
1689.6	187475
1692.9	195521

Tailwater Data, Name - Current Operations

Flow	Elevation
------	-----------

6000	1467.98
7000	1468.91
8000	1469.68
9000	1470.34
12000	1471.91
14000	1472.77
18000	1474.1
20000	1474.89
24000	1476.1
28000	1477.21
30000	1477.74
35000	1478.98
40000	1480.14
44000	1481.01
48000	1481.84
54000	1483.01
60000	1484.09
65000	1484.92
72500	1486.06
75000	1486.41
80000	1487.08
85000	1487.68
90000	1488.24
95000	1488.73
100000	1489.18
105000	1489.57

Ramp\_Curve Data, Name - Johnson Bar rating curve

Flow	Elevation
------	-----------

0	2.2
3600	3
4570	3.5
5650	4
6899	4.5
8300	5
9797	5.5
11427	6
13173	6.5
14975	7
16876	7.5
18822	8
20810	8.5
22837	9
24901	9.5
27000	10
29066	10.5
31159	11

33277	11.5
35420	12
39770	13
41982	13.5
44213	14
48734	15
51023	15.5
53331	16
58000	17
60500	17.5

Outlet1 Data, Name - None  
Elevation      Flow

Outlet2 Data, Name - Current Operations  
Elevation      Flow

1600	0
1668	168000
1673	195000
1678	226000
1683	255000
1688	284000
1691	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	2	2

Operating Setting Conditions, Name - OP-1\_Scenario3\_low\_94

Minimum Data, Name - OP-1\_Scenario3\_94

IDay	Data	OrInflow	Dependent
1	8500	False	False
31	8500	False	False
32	8600	False	False
33	9140	False	False
34	9240	False	False
35	9060	False	False
36	8810	False	False
37	8730	False	False
38	8500	False	False
39	8500	False	False
152	8500	False	False
153	8500	False	False
154	8500	False	False
155	8500	False	False
156	8500	False	False
157	8500	False	False
158	8500	False	False



159	8500	False	False
160	8500	False	False
161	8500	False	False
162	8500	False	False
163	8500	False	False
164	8500	False	False
165	8500	False	False
166	8500	False	False
167	8500	False	False
168	8500	False	False
169	8500	False	False
170	8421	False	False
171	8465	False	False
172	8280.333	False	False
173	8288.667	False	False
174	7929	False	False
175	7663	False	False
176	7531	False	False
177	7382	False	False
178	7421	False	False
179	7267	False	False
180	7154.333	False	False
181	7186.667	False	False
182	7089.667	False	False
183	7384.333	False	False
184	7626	False	False
185	7883	False	False
186	8082	False	False
187	8376.333	False	False
188	8500	False	False
220	8500	False	False
221	8520	False	False
222	8434	False	False
223	8352	False	False
224	8238.333	False	False
225	8078	False	False
226	7649.667	False	False
227	7621	False	False
228	7744.333	False	False
229	7814.667	False	False
230	7665	False	False
231	7517	False	False
232	7432.667	False	False
233	7426.333	False	False
234	7245	False	False
235	7383.667	False	False
236	7347.333	False	False
237	7535	False	False
238	7579.667	False	False
239	7638.333	False	False
240	7814.667	False	False
241	7883.333	False	False
242	8150.667	False	False
243	8007.333	False	False
244	7942.667	False	False
245	7887.333	False	False
246	8004.333	False	False

247	8172.667	False	False
248	8242.333	False	False
249	8286.667	False	False
250	8343.333	False	False
251	8392.667	False	False
252	8344.333	False	False
253	8127.333	False	False
254	8283.333	False	False
255	8290.667	False	False
256	8243.667	False	False
257	8175	False	False
258	8172.333	False	False
259	8462	False	False
260	8519	False	False
261	8801	False	False
262	8776.667	False	False
263	8737.333	False	False
264	8543.333	False	False
265	8470	False	False
266	8400.667	False	False
267	8405.333	False	False
268	8538.667	False	False
269	8436.333	False	False
270	8446.333	False	False
271	8485	False	False
272	8720	False	False
273	8973	False	False
274	8960.667	False	False
275	9090	False	False
276	9080	False	False
277	9040	False	False
278	9020	False	False
279	8930	False	False
280	8830	False	False
281	8760	False	False
282	8770	False	False
283	8770	False	False
284	8750	False	False
285	8720	False	False
286	8670	False	False
287	8620	False	False
288	8520	False	False
289	8500	False	False
290	8500	False	False
291	8500	False	False
292	8500	False	False
293	8500	False	False
294	9000	False	False
345	9000	False	False
346	9060	False	False
347	8830	False	False
348	8540	False	False
349	8500	False	False
350	8550	False	False
351	8520	False	False
352	8500	False	False
353	8500	False	False

354	8500	False	False
355	8500	False	False
356	8500	False	False
357	8770	False	False
358	9000	False	False
359	8840	False	False
360	8570	False	False
361	8500	False	False
362	8500	False	False
363	8500	False	False
364	8500	False	False
365	8510	False	False

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1687

IDay	Elevation	HardTarget
1	1687	0
365	1687	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1688
365	1688

Min\_Elev Data, Name - 1683 all year

IDay	Elevation
1	1683
365	1683

Level\_Fluct Data, Name - LF5 all year

IDay	Weekday	Weekend	Hard	Spill
1	5	5	False	False
365	5	5	False	False

Level\_Rate Data, Name - None

IDay	Rate
------	------

Flashboard Data, Name - None

Elevation	Volume	Trip	Reset
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Bypass Data, Name - None

IDay	Data	OrInflow	Destination
------	------	----------	-------------

Ramp\_Rate Data, Name - Proposed Ops

IDay	UpRampDay	UpRampHour	DownRampDay	DownRampHour	Type
Peak_Inside					

1	10	1	10	1	Stage
False					
90	10	1	10	1	Stage
False					
91	2.9	1	2.9	1	Stage
False					
273	2.9	1	2.9	1	Stage
False					
274	10	1	10	1	Stage
False					
293	10	1	10	1	Stage
False					
294	1	1	1	1	Stage
False					
345	1	1	1	1	Stage
False					
346	10	1	10	1	Stage
False					
365	10	1	10	1	Stage
False					

Withdrawal Data, Name - None  
Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations

Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 11, Name = Current Operations

Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 40, Name = Current Operations

Head Flow Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 9, Name = Current Operations

gOutput Eff Cap

**IPC Proprietary Data**

Maintenance Data, Name - None

IDay Unit

Min\_Unit Data, Name - None

Head Flow Eff CenterLine Headloss  
GeneratorEff OpStyle

Complete Scenario Data for Scenario—OP-1\_Scenario4\_average written out on 11/03/2004 10:56:55 AM

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Complete Scenario Data for Scenario - OP-1\_Scenario4\_average  
 Written out on 11/03/2004 10:56:55 AM

System Misc. Name - Proposed Ops Average					
Load_Shape_ID	CarryOver	MaxPeak	ForecastDays	ForecastAcr	
Fall_Chinook_	Flood_Control	Max_Discharge			
8	False	False	3	1	15
4	0				

Load_Shape Data, Name - FP01 SP HL pricing			
IMonth	Period	Duration	Price
1	1	6	
1	2	0	
1	3	6	
1	4	5	
1	5	5	
1	6	0	
1	7	2	
1	8	7	
1	9	6	
1	10	4	
1	11	5	
1	12	2	
2	1	6	
2	2	0	
2	3	6	
2	4	5	
2	5	5	
2	6	0	
2	7	2	
2	8	7	
2	9	6	
2	10	4	
2	11	5	
2	12	2	
3	1	6	
3	2	0	
3	3	6	
3	4	5	
3	5	5	
3	6	0	
3	7	2	
3	8	7	
3	9	6	
3	10	4	
3	11	5	
3	12	2	
4	1	6	
4	2	0	
4	3	8	
4	4	0	
4	5	8	
4	6	0	
4	7	2	

4	8	7
4	9	8
4	10	0
4	11	7
4	12	2
5	1	6
5	2	0
5	3	8
5	4	0
5	5	8
5	6	0
5	7	2
5	8	7
5	9	8
5	10	0
5	11	7
5	12	2
6	1	6
6	2	0
6	3	8
6	4	0
6	5	8
6	6	0
6	7	2
6	8	7
6	9	8
6	10	0
6	11	7
6	12	2
7	1	6
7	2	0
7	3	16
7	4	0
7	5	0
7	6	0
7	7	2
7	8	8
7	9	14
7	10	0
7	11	0
7	12	2
8	1	6
8	2	0
8	3	16
8	4	0
8	5	0
8	6	0
8	7	2
8	8	8
8	9	14
8	10	0
8	11	0
8	12	2
9	1	6
9	2	0
9	3	16
9	4	0



9	5	0
9	6	0
9	7	2
9	8	8
9	9	14
9	10	0
9	11	0
9	12	2
10	1	6
10	2	0
10	3	6
10	4	4
10	5	6
10	6	0
10	7	2
10	8	7
10	9	6
10	10	4
10	11	5
10	12	2
11	1	6
11	2	0
11	3	6
11	4	4
11	5	6
11	6	0
11	7	2
11	8	7
11	9	6
11	10	4
11	11	5
11	12	2
12	1	6
12	2	0
12	3	6
12	4	4
12	5	6
12	6	0
12	7	2
12	8	7
12	9	6
12	10	4
12	11	5
12	12	2

Fall\_Chinook Data, Name - Proposed Ops Average

Draw_Start	Refill_Start	Refill_End	Max_Discharge	Minimum_Max
Maximum_Max	Target_Elevat	Refill_Elevat	Allow_Peak	
252	294	345	11500	0
0	2076	False		0

Flood\_Control Data, Name - RC V2000

IDay	Dalles_Foreca	Brownlee_Fore	Req_Volume
59	75	3	0
59	75	4	200

59	75	5	300
59	75	6	400
59	85	3	150
59	85	4	300
59	85	5	350
59	85	6	400
59	95	3	200
59	95	4	300
59	95	5	350
59	95	6	400
59	105	3	300
59	105	4	400
59	105	5	400
59	105	6	400
59	115	3	300
59	115	4	400
59	115	5	500
59	115	6	500
90	75	3	0
90	75	4	100
90	75	5	200
90	75	6	350
90	85	3	100
90	85	4	300
90	85	5	400
90	85	6	450
90	95	3	150
90	95	4	300
90	95	5	400
90	95	6	500
90	105	3	200
90	105	4	425
90	105	5	475
90	105	6	500
90	115	3	250
90	115	4	450
90	115	5	600
90	115	6	750
105	75	3	0
105	75	4	50
105	75	5	150
105	75	6	250
105	85	3	50
105	85	4	250
105	85	5	400
105	85	6	500
105	95	3	100
105	95	4	300
105	95	5	425
105	95	6	550
105	105	3	150
105	105	4	450
105	105	5	525
105	105	6	600
105	115	3	200
105	115	4	500
105	115	5	650

105	115	6	850
120	75	3	0
120	75	4	0
120	75	5	50
120	75	6	150
120	85	3	0
120	85	4	250
120	85	5	400
120	85	6	500
120	95	3	50
120	95	4	300
120	95	5	450
120	95	6	600
120	105	3	100
120	105	4	450
120	105	5	550
120	105	6	700
120	115	3	150
120	115	4	550
120	115	5	750
120	115	6	980

Max\_Discharge Data, Name - None  
IDay Flow

Scenario Information for Brownlee

Physical Setting Conditions, Name - Current Ops 97b

Res\_Storage Data, Name - CEQUAL97b

Elevation	Storage
1973.2	432247
1979.8	475263
1983.2	498341
1986.5	521420
1989.8	546048
1993.1	570676
1996.5	596713
1999.8	622750
2003.1	650212
2006.5	677675
2009.8	706573
2013.1	735471
2016.5	765566
2019.8	795660
2023.1	827202
2029.8	891862
2033.1	924980
2036.4	959727
2039.8	994474

2043.1	1030689
2046.4	1066905
2049.8	1104803
2053.1	1142701
2056.4	1182254
2059.7	1221807
2063.1	1263344
2066.4	1304880
2069.7	1348494
2073.06	1392108
2076.4	1437212
2079.7	1482317

Tailwater Data, Name - Current Operations  
Flow                      Elevation

500	0.32
1000	0.38
2000	0.51
3000	0.63
4000	0.75
5000	0.87
6000	1
7000	1.11
8000	1.23
9000	1.35
10000	1.47
11000	1.59
12000	1.7
13000	1.82
14000	1.93
15000	2.05
20000	2.61
25000	3.15
30000	3.67
35000	4.18
40000	4.66
45000	5.13
50000	5.58
55000	6
60000	6.42
65000	6.81
70000	7.18
75000	7.54
80000	7.87
85000	8.19
90000	8.49
95000	8.77
100000	9.03

Ramp\_Curve Data, Name - None  
Flow                      Elevation

Outlet1 Data, Name - None  
Elevation                  Flow

Outlet2 Data, Name - Current Operations

Elevation	Flow
2027	0
2033	5250
2037	12500
2044	27750
2050	46000
2077	171300

Outlet3 Data, Name - Brownlee Gates

Elevation	Flow
1976	51500
1990	69000
2010	87500
2027	100500
2050	116000
2079	132500

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - OP-1\_Scenario3&4\_average

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - OP-1\_Scenario3&4\_average

IDay	Data	OrInflow	Dependent
1	10500	False	False
152	10500	False	False
153	8500	False	False
293	8500	False	False
294	11500	False	False
345	11500	False	False
346	10500	False	False
365	10500	False	False

Target\_Elev Data, Name - Proposed Ops Average

IDay	Elevation	HardTarget
1	2076	0
7	2076	0
158	2069	0
189	2076	0
243	2069	0
252	2069	0
365	2076	0

Flood\_Elev Data, Name - H2077 all year

IDay	Elevation
------	-----------

1 2077  
365 2077

Min\_Elev Data, Name - H1976 all year  
IDay Elevation

1 1976  
365 1976

Level\_Fluct Data, Name - LF3 all yr  
IDay Weekday Weekend

			Hard	Spill
1	3	3	False	False
244	3	3	False	False
365	3	3	False	False

Level\_Rate Data, Name - None  
IDay Rate

Flashboard Data, Name - None  
Elevation Volume Trip Reset

Bypass Data, Name - None  
IDay Data OrInflow Destination

Ramp\_Rate Data, Name - None  
IDay UpRampDay UpRampHour DownRampDay DownRampHour Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 6, Name = Current Operations  
Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 34, Name = Current Operations  
Head Flow Eff

**IPC Proprietary Data**

Turbine Performance, ID = 47, Name = Unit 5 n  
Head Flow Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 5, Name = Unit 5 Current Ops  
gOutput            Eff                    Cap

**IPC Proprietary Data**

Generator Performance Data, ID = 6, Name = Units 1 - 4 Current Ops  
gOutput            Eff                    Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay                Unit

Min\_Unit Data, Name - None  
Head                Flow                    Eff                    CenterLine            Headloss  
GeneratorEff    OpStyle

Scenario Information for Oxbow

Physical Setting Conditions, Name - Current Operations

Res\_Storage Data, Name - CEQUAL RS Curve

Elevation	Storage
1786.42	38536.44
1789.7	41746
1792.98	44954.86
1796.3	48465
1799.54	51975.63
1802.8	55731
1806.1	59487

Tailwater Data, Name - Current Operations

Flow	Elevation
1	1490

Ramp\_Curve Data, Name - None

Flow	Elevation
------	-----------

Outlet1 Data, Name - None

Elevation	Flow
-----------	------

Outlet2 Data, Name - Current Operations

Elevation	Flow
-----------	------

1755	0
1765	25000
1773	50000
1778	55000
1783	100000
1787	125000
1792	150000
1795	175000
1798	200000
1802	225000
1805	250000
1808	275000
1811	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1803

IDay	Elevation	HardTarget
1	1803	0
365	1803	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1805
365	1805

Min\_Elev Data, Name - H1795 all year

IDay	Elevation
1	1795
365	1795

Level\_Fluct Data, Name - LF5 all year

IDay	Weekday	Weekend	Hard	Spill
1	5	5	True	False
365	5	5	True	False



Level\_Rate Data, Name - None  
IDay Rate

Flashboard Data, Name - None  
Elevation Volume Trip Reset

Bypass Data, Name - Q100 all year  
IDay Data OrInflow Destination

1	100	False	3
365	100	False	3

Ramp\_Rate Data, Name - None  
IDay UpRampDay UpRampHour DownRampDay DownRampHour Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 8, Name = Current Operations  
Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 37, Name = Current Operations  
Head Flow Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 7, Name = Current Operations  
gOutput Eff Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay Unit

Min\_Unit Data, Name - None  
Head Flow Eff CenterLine Headloss  
GeneratorEff OpStyle

Scenario Information for Hells Canyon

Physical Setting Conditions, Name - PropOps\_HCDamCurve\_grid20ft

Res\_Storage Data, Name - CEQUAL RS Curve 20ft drawdown

Elevation	Storage
-----------	---------

1666.7	135049
1668.3	138532
1669.9	142016
1673.2	148983
1674.9	152701
1676.5	156419
1679.8	163855
1683.1	171642
1686.4	179429
1689.6	187475
1692.9	195521

Tailwater Data, Name - Current Operations

Flow	Elevation
------	-----------

6000	1467.98
7000	1468.91
8000	1469.68
9000	1470.34
12000	1471.91
14000	1472.77
18000	1474.1
20000	1474.89
24000	1476.1
28000	1477.21
30000	1477.74
35000	1478.98
40000	1480.14
44000	1481.01
48000	1481.84
54000	1483.01
60000	1484.09
65000	1484.92
72500	1486.06
75000	1486.41
80000	1487.08
85000	1487.68
90000	1488.24
95000	1488.73
100000	1489.18
105000	1489.57

Ramp\_Curve Data, Name - HC Dam rating curve

Flow	Elevation
------	-----------

0	59
3950	62

4710	62.5
5531	63
6412	63.5
7352	64
9407	65
10520	65.5
11690	66
12920	66.5
14200	67
16940	68
19890	69
23050	70
26430	71
30020	72
33820	73
37830	74
42040	75
46450	76
51070	77
55880	78
60890	79
66100	80
71500	81
77100	82
82900	83
88890	84
95070	85
101400	86
108000	87

Outlet1 Data, Name - None  
Elevation      Flow

Outlet2 Data, Name - Current Operations  
Elevation      Flow

1600	0
1668	168000
1673	195000
1678	226000
1683	255000
1688	284000
1691	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant_Options Data, Name - Current Operations				
Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	2	2

Operating Setting Conditions, Name - OP-1\_Scenario4\_average

Minimum Data, Name - OP-1\_Scenario3&4\_average

IDay	Data	OrInflow	Dependent
1	10500	False	False
152	10500	False	False
153	8500	False	False
293	8500	False	False
294	11500	False	False
345	11500	False	False
346	10500	False	False
365	10500	False	False

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1687

IDay	Elevation	HardTarget
1	1687	0
365	1687	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1688
365	1688

Min\_Elev Data, Name - 1668ft all year

IDay	Elevation
1	1668
365	1668

Level\_Fluct Data, Name - LF20 all year

IDay	Weekday	Weekend	Hard	Spill
1	20	20	False	False
365	20	20	False	False

Level\_Rate Data, Name - None

IDay	Rate
------	------

Flashboard Data, Name - None

Elevation	Volume	Trip	Reset
-----------	--------	------	-------

Bypass Data, Name - None

IDay	Data	OrInflow	Destination
------	------	----------	-------------

Ramp\_Rate Data, Name - OP-1\_Scenariolf

IDay	UpRampDay	UpRampHour	DownRampDay	DownRampHour	Type
1	2	0.5	2	0.5	Stage
False					

60	2	0.167	2	0.167	Stage
False					
151	2	0.167	2	0.167	Stage
False					
152	2	0.5	2	0.5	Stage
False					
273	2	0.5	2	0.5	Stage
False					
274	2	0.5	2	0.5	Stage
False					
365	2	0.5	2	0.5	Stage
False					

Withdrawal Data, Name - None  
 Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
 Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 11, Name = Current Operations  
 Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 40, Name = Current Operations  
 Head Flow Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 9, Name = Current Operations  
 gOutput Eff Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
 IDay Unit

Min\_Unit Data, Name - None  
 Head Flow Eff CenterLine Headloss  
 GeneratorEff OpStyle



Complete Scenario Data for Scenario—OP-1\_Scenario4\_high written out on 11/03/2004 10:57:07 AM

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Complete Scenario Data for Scenario - OP-1\_Scenario4\_high  
 Written out on 11/03/2004 10:57:07 AM

System Misc. Name - Proposed Ops High					
Load_Shape_ID	CarryOver	MaxPeak	ForecastDays	ForecastAcr	
Fall_Chinook_	Flood_Control	Max_Discharge			
8	False	False	3	1	16
4	0				

Load_Shape Data, Name - FP01 SP HL pricing			
IMonth	Period	Duration	Price
1	1	6	
1	2	0	
1	3	6	
1	4	5	
1	5	5	
1	6	0	
1	7	2	
1	8	7	
1	9	6	
1	10	4	
1	11	5	
1	12	2	
2	1	6	
2	2	0	
2	3	6	
2	4	5	
2	5	5	
2	6	0	
2	7	2	
2	8	7	
2	9	6	
2	10	4	
2	11	5	
2	12	2	
3	1	6	
3	2	0	
3	3	6	
3	4	5	
3	5	5	
3	6	0	
3	7	2	
3	8	7	
3	9	6	
3	10	4	
3	11	5	
3	12	2	
4	1	6	
4	2	0	
4	3	8	
4	4	0	
4	5	8	
4	6	0	
4	7	2	

4	8	7
4	9	8
4	10	0
4	11	7
4	12	2
5	1	6
5	2	0
5	3	8
5	4	0
5	5	8
5	6	0
5	7	2
5	8	7
5	9	8
5	10	0
5	11	7
5	12	2
6	1	6
6	2	0
6	3	8
6	4	0
6	5	8
6	6	0
6	7	2
6	8	7
6	9	8
6	10	0
6	11	7
6	12	2
7	1	6
7	2	0
7	3	16
7	4	0
7	5	0
7	6	0
7	7	2
7	8	8
7	9	14
7	10	0
7	11	0
7	12	2
8	1	6
8	2	0
8	3	16
8	4	0
8	5	0
8	6	0
8	7	2
8	8	8
8	9	14
8	10	0
8	11	0
8	12	2
9	1	6
9	2	0
9	3	16
9	4	0

9	5	0
9	6	0
9	7	2
9	8	8
9	9	14
9	10	0
9	11	0
9	12	2
10	1	6
10	2	0
10	3	6
10	4	4
10	5	6
10	6	0
10	7	2
10	8	7
10	9	6
10	10	4
10	11	5
10	12	2
11	1	6
11	2	0
11	3	6
11	4	4
11	5	6
11	6	0
11	7	2
11	8	7
11	9	6
11	10	4
11	11	5
11	12	2
12	1	6
12	2	0
12	3	6
12	4	4
12	5	6
12	6	0
12	7	2
12	8	7
12	9	6
12	10	4
12	11	5
12	12	2

Fall\_Chinook Data, Name - Proposed Ops High

Draw_Start	Refill_Start	Refill_End	Max_Discharge	Minimum_Max
Maximum_Max	Target_Elevat	Refill_Elevat	Allow_Peak	
252	294	345	13000	0
0	2076	False		0

Flood\_Control Data, Name - RC V2000

IDay	Dalles_Foreca	Brownlee_Fore	Req_Volume
59	75	3	0
59	75	4	200

59	75	5	300
59	75	6	400
59	85	3	150
59	85	4	300
59	85	5	350
59	85	6	400
59	95	3	200
59	95	4	300
59	95	5	350
59	95	6	400
59	105	3	300
59	105	4	400
59	105	5	400
59	105	6	400
59	115	3	300
59	115	4	400
59	115	5	500
59	115	6	500
90	75	3	0
90	75	4	100
90	75	5	200
90	75	6	350
90	85	3	100
90	85	4	300
90	85	5	400
90	85	6	450
90	95	3	150
90	95	4	300
90	95	5	400
90	95	6	500
90	105	3	200
90	105	4	425
90	105	5	475
90	105	6	500
90	115	3	250
90	115	4	450
90	115	5	600
90	115	6	750
105	75	3	0
105	75	4	50
105	75	5	150
105	75	6	250
105	85	3	50
105	85	4	250
105	85	5	400
105	85	6	500
105	95	3	100
105	95	4	300
105	95	5	425
105	95	6	550
105	105	3	150
105	105	4	450
105	105	5	525
105	105	6	600
105	115	3	200
105	115	4	500
105	115	5	650

105	115	6	850
120	75	3	0
120	75	4	0
120	75	5	50
120	75	6	150
120	85	3	0
120	85	4	250
120	85	5	400
120	85	6	500
120	95	3	50
120	95	4	300
120	95	5	450
120	95	6	600
120	105	3	100
120	105	4	450
120	105	5	550
120	105	6	700
120	115	3	150
120	115	4	550
120	115	5	750
120	115	6	980

Max\_Discharge Data, Name - None  
IDay Flow

Scenario Information for Brownlee

Physical Setting Conditions, Name - Current Ops 97b

Res\_Storage Data, Name - CEQUAL97b

Elevation	Storage
1973.2	432247
1979.8	475263
1983.2	498341
1986.5	521420
1989.8	546048
1993.1	570676
1996.5	596713
1999.8	622750
2003.1	650212
2006.5	677675
2009.8	706573
2013.1	735471
2016.5	765566
2019.8	795660
2023.1	827202
2029.8	891862
2033.1	924980
2036.4	959727
2039.8	994474

2043.1	1030689
2046.4	1066905
2049.8	1104803
2053.1	1142701
2056.4	1182254
2059.7	1221807
2063.1	1263344
2066.4	1304880
2069.7	1348494
2073.06	1392108
2076.4	1437212
2079.7	1482317

Tailwater Data, Name - Current Operations  
Flow                      Elevation

500	0.32
1000	0.38
2000	0.51
3000	0.63
4000	0.75
5000	0.87
6000	1
7000	1.11
8000	1.23
9000	1.35
10000	1.47
11000	1.59
12000	1.7
13000	1.82
14000	1.93
15000	2.05
20000	2.61
25000	3.15
30000	3.67
35000	4.18
40000	4.66
45000	5.13
50000	5.58
55000	6
60000	6.42
65000	6.81
70000	7.18
75000	7.54
80000	7.87
85000	8.19
90000	8.49
95000	8.77
100000	9.03

Ramp\_Curve Data, Name - None  
Flow                      Elevation

Outlet1 Data, Name - None  
Elevation              Flow

Outlet2 Data, Name - Current Operations

Elevation	Flow
2027	0
2033	5250
2037	12500
2044	27750
2050	46000
2077	171300

Outlet3 Data, Name - Brownlee Gates

Elevation	Flow
1976	51500
1990	69000
2010	87500
2027	100500
2050	116000
2079	132500

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - OP-1\_Scenario3&4\_high

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - OP-1\_Scenario3&4\_high

IDay	Data	OrInflow	Dependent
1	12000	False	False
152	12000	False	False
153	8500	False	False
293	8500	False	False
294	13000	False	False
345	13000	False	False
346	12000	False	False
365	12000	False	False

Target\_Elev Data, Name - Proposed Ops High

IDay	Elevation	HardTarget
1	2076	0
7	2076	0
189	2076	0
243	2059	0
252	2059	0
253	2076	0
365	2076	0

Flood\_Elev Data, Name - H2077 all year

IDay	Elevation
------	-----------

1 2077  
365 2077

Min\_Elev Data, Name - H1976 all year  
IDay Elevation

1 1976  
365 1976

Level\_Fluct Data, Name - LF3 all yr  
IDay Weekday Weekend

			Hard	Spill
1	3	3	False	False
244	3	3	False	False
365	3	3	False	False

Level\_Rate Data, Name - None  
IDay Rate

Flashboard Data, Name - None  
Elevation Volume Trip Reset

Bypass Data, Name - None  
IDay Data OrInflow Destination

Ramp\_Rate Data, Name - None  
IDay UpRampDay UpRampHour DownRampDay DownRampHour Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 6, Name = Current Operations  
Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 34, Name = Current Operations  
Head Flow Eff

**IPC Proprietary Data**

Turbine Performance, ID = 47, Name = Unit 5 n  
Head Flow Eff



**IPC Proprietary Data**

Generator Performance Data, ID = 5, Name = Unit 5 Current Ops  
gOutput            Eff                    Cap

**IPC Proprietary Data**

Generator Performance Data, ID = 6, Name = Units 1 - 4 Current Ops  
gOutput            Eff                    Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay                Unit

Min\_Unit Data, Name - None  
Head                Flow                    Eff                    CenterLine            Headloss  
GeneratorEff    OpStyle

Scenario Information for Oxbow

Physical Setting Conditions, Name - Current Operations

Res\_Storage Data, Name - CEQUAL RS Curve  
Elevation            Storage

1786.42	38536.44
1789.7	41746
1792.98	44954.86
1796.3	48465
1799.54	51975.63
1802.8	55731
1806.1	59487

Tailwater Data, Name - Current Operations  
Flow                Elevation

1	1490
---	------

Ramp\_Curve Data, Name - None  
Flow                Elevation

Outlet1 Data, Name - None  
Elevation            Flow

Outlet2 Data, Name - Current Operations  
Elevation            Flow

1755	0
1765	25000
1773	50000
1778	55000
1783	100000
1787	125000
1792	150000
1795	175000
1798	200000
1802	225000
1805	250000
1808	275000
1811	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1803

IDay	Elevation	HardTarget
1	1803	0
365	1803	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1805
365	1805

Min\_Elev Data, Name - H1795 all year

IDay	Elevation
1	1795
365	1795

Level\_Fluct Data, Name - LF5 all year

IDay	Weekday	Weekend	Hard	Spill
1	5	5	True	False
365	5	5	True	False

Level\_Rate Data, Name - None  
IDay Rate

Flashboard Data, Name - None  
Elevation Volume Trip Reset

Bypass Data, Name - Q100 all year  
IDay Data OrInflow Destination

1	100	False	3
365	100	False	3

Ramp\_Rate Data, Name - None  
IDay UpRampDay UpRampHour DownRampDay DownRampHour Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 8, Name = Current Operations  
Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 37, Name = Current Operations  
Head Flow Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 7, Name = Current Operations  
gOutput Eff Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay Unit

Min\_Unit Data, Name - None  
Head Flow Eff CenterLine Headloss  
GeneratorEff OpStyle

Scenario Information for Hells Canyon

Physical Setting Conditions, Name - PropOps\_HCDamCurve\_grid20ft

Res\_Storage Data, Name - CEQUAL RS Curve 20ft drawdown

Elevation	Storage
1666.7	135049
1668.3	138532
1669.9	142016
1673.2	148983
1674.9	152701
1676.5	156419
1679.8	163855
1683.1	171642
1686.4	179429
1689.6	187475
1692.9	195521

Tailwater Data, Name - Current Operations

Flow	Elevation
6000	1467.98
7000	1468.91
8000	1469.68
9000	1470.34
12000	1471.91
14000	1472.77
18000	1474.1
20000	1474.89
24000	1476.1
28000	1477.21
30000	1477.74
35000	1478.98
40000	1480.14
44000	1481.01
48000	1481.84
54000	1483.01
60000	1484.09
65000	1484.92
72500	1486.06
75000	1486.41
80000	1487.08
85000	1487.68
90000	1488.24
95000	1488.73
100000	1489.18
105000	1489.57

Ramp\_Curve Data, Name - HC Dam rating curve

Flow	Elevation
0	59
3950	62

4710	62.5
5531	63
6412	63.5
7352	64
9407	65
10520	65.5
11690	66
12920	66.5
14200	67
16940	68
19890	69
23050	70
26430	71
30020	72
33820	73
37830	74
42040	75
46450	76
51070	77
55880	78
60890	79
66100	80
71500	81
77100	82
82900	83
88890	84
95070	85
101400	86
108000	87

Outlet1 Data, Name - None  
Elevation      Flow

Outlet2 Data, Name - Current Operations  
Elevation      Flow

1600	0
1668	168000
1673	195000
1678	226000
1683	255000
1688	284000
1691	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant_Options Data, Name - Current Operations				
Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	2	2

Operating Setting Conditions, Name - OP-1\_Scenario4\_high

Minimum Data, Name - OP-1\_Scenario3&4\_High

IDay	Data	OrInflow	Dependent
1	12000	False	False
152	12000	False	False
153	8500	False	False
293	8500	False	False
294	13000	False	False
345	13000	False	False
346	12000	False	False
365	12000	False	False

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1687

IDay	Elevation	HardTarget
1	1687	0
365	1687	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1688
365	1688

Min\_Elev Data, Name - 1668ft all year

IDay	Elevation
1	1668
365	1668

Level\_Fluct Data, Name - LF20 all year

IDay	Weekday	Weekend	Hard	Spill
1	20	20	False	False
365	20	20	False	False

Level\_Rate Data, Name - None

IDay	Rate
------	------

Flashboard Data, Name - None

Elevation	Volume	Trip	Reset
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Bypass Data, Name - None

IDay	Data	OrInflow	Destination
------	------	----------	-------------

Ramp\_Rate Data, Name - OP-1\_Scenariolf

IDay	UpRampDay	UpRampHour	DownRampDay	DownRampHour	Type
1	2	0.5	2	0.5	Stage
False					

60	2	0.167	2	0.167	Stage
False					
151	2	0.167	2	0.167	Stage
False					
152	2	0.5	2	0.5	Stage
False					
273	2	0.5	2	0.5	Stage
False					
274	2	0.5	2	0.5	Stage
False					
365	2	0.5	2	0.5	Stage
False					

Withdrawal Data, Name - None  
 Withdrawal      Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
 Unit\_No          Head\_Loss\_ID    Generator\_Per    Turbine\_Perf\_    Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 11, Name = Current Operations  
 Unit\_No          Unit\_HL            Common\_HL        Use\_Com2            Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 40, Name = Current Operations  
 Head              Flow                Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 9, Name = Current Operations  
 gOutput          Eff                Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
 IDay              Unit

Min\_Unit Data, Name - None  
 Head              Flow                Eff                    CenterLine          Headloss  
 GeneratorEff    OpStyle





Complete Scenario Data for Scenario—OP-1\_Scenario4\_low\_92 written out on 11/03/2004 10:57:19 AM

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Complete Scenario Data for Scenario - OP-1\_Scenario4\_low\_92  
 Written out on 11/03/2004 10:57:19 AM

System Misc. Name - Proposed	Ops Low	ForecastDays	ForecastAcr
Load_Shape_ID CarryOver	MaxPeak		
Fall_Chinook_ Flood_Control	Max_Discharge		
8	False	3	1
4	0		14

Load_Shape Data, Name - FP01	SP HL pricing
IMonth	Period Duration Price
1	1 6
1	2 0
1	3 6
1	4 5
1	5 5
1	6 0
1	7 2
1	8 7
1	9 6
1	10 4
1	11 5
1	12 2
2	1 6
2	2 0
2	3 6
2	4 5
2	5 5
2	6 0
2	7 2
2	8 7
2	9 6
2	10 4
2	11 5
2	12 2
3	1 6
3	2 0
3	3 6
3	4 5
3	5 5
3	6 0
3	7 2
3	8 7
3	9 6
3	10 4
3	11 5
3	12 2
4	1 6
4	2 0
4	3 8
4	4 0
4	5 8
4	6 0
4	7 2

4	8	7
4	9	8
4	10	0
4	11	7
4	12	2
5	1	6
5	2	0
5	3	8
5	4	0
5	5	8
5	6	0
5	7	2
5	8	7
5	9	8
5	10	0
5	11	7
5	12	2
6	1	6
6	2	0
6	3	8
6	4	0
6	5	8
6	6	0
6	7	2
6	8	7
6	9	8
6	10	0
6	11	7
6	12	2
7	1	6
7	2	0
7	3	16
7	4	0
7	5	0
7	6	0
7	7	2
7	8	8
7	9	14
7	10	0
7	11	0
7	12	2
8	1	6
8	2	0
8	3	16
8	4	0
8	5	0
8	6	0
8	7	2
8	8	8
8	9	14
8	10	0
8	11	0
8	12	2
9	1	6
9	2	0
9	3	16
9	4	0

9	5	0
9	6	0
9	7	2
9	8	8
9	9	14
9	10	0
9	11	0
9	12	2
10	1	6
10	2	0
10	3	6
10	4	4
10	5	6
10	6	0
10	7	2
10	8	7
10	9	6
10	10	4
10	11	5
10	12	2
11	1	6
11	2	0
11	3	6
11	4	4
11	5	6
11	6	0
11	7	2
11	8	7
11	9	6
11	10	4
11	11	5
11	12	2
12	1	6
12	2	0
12	3	6
12	4	4
12	5	6
12	6	0
12	7	2
12	8	7
12	9	6
12	10	4
12	11	5
12	12	2

Fall\_Chinook Data, Name - Proposed Ops Low

Draw_Start	Refill_Start	Refill_End	Max_Discharge	Minimum_Max
Maximum_Max	Target_Elevat	Refill_Elevat	Allow_Peak	
252	294	345	9000	0
0	2076	False		0

Flood\_Control Data, Name - RC V2000

IDay	Dalles_Foreca	Brownlee_Fore	Req_Volume
59	75	3	0
59	75	4	200

59	75	5	300
59	75	6	400
59	85	3	150
59	85	4	300
59	85	5	350
59	85	6	400
59	95	3	200
59	95	4	300
59	95	5	350
59	95	6	400
59	105	3	300
59	105	4	400
59	105	5	400
59	105	6	400
59	115	3	300
59	115	4	400
59	115	5	500
59	115	6	500
90	75	3	0
90	75	4	100
90	75	5	200
90	75	6	350
90	85	3	100
90	85	4	300
90	85	5	400
90	85	6	450
90	95	3	150
90	95	4	300
90	95	5	400
90	95	6	500
90	105	3	200
90	105	4	425
90	105	5	475
90	105	6	500
90	115	3	250
90	115	4	450
90	115	5	600
90	115	6	750
105	75	3	0
105	75	4	50
105	75	5	150
105	75	6	250
105	85	3	50
105	85	4	250
105	85	5	400
105	85	6	500
105	95	3	100
105	95	4	300
105	95	5	425
105	95	6	550
105	105	3	150
105	105	4	450
105	105	5	525
105	105	6	600
105	115	3	200
105	115	4	500
105	115	5	650

105	115	6	850
120	75	3	0
120	75	4	0
120	75	5	50
120	75	6	150
120	85	3	0
120	85	4	250
120	85	5	400
120	85	6	500
120	95	3	50
120	95	4	300
120	95	5	450
120	95	6	600
120	105	3	100
120	105	4	450
120	105	5	550
120	105	6	700
120	115	3	150
120	115	4	550
120	115	5	750
120	115	6	980

Max\_Discharge Data, Name - None  
IDay Flow

Scenario Information for Brownlee

Physical Setting Conditions, Name - Current Ops 97b

Res\_Storage Data, Name - CEQUAL97b

Elevation	Storage
1973.2	432247
1979.8	475263
1983.2	498341
1986.5	521420
1989.8	546048
1993.1	570676
1996.5	596713
1999.8	622750
2003.1	650212
2006.5	677675
2009.8	706573
2013.1	735471
2016.5	765566
2019.8	795660
2023.1	827202
2029.8	891862
2033.1	924980
2036.4	959727
2039.8	994474

2043.1	1030689
2046.4	1066905
2049.8	1104803
2053.1	1142701
2056.4	1182254
2059.7	1221807
2063.1	1263344
2066.4	1304880
2069.7	1348494
2073.06	1392108
2076.4	1437212
2079.7	1482317

Tailwater Data, Name - Current Operations  
Flow                      Elevation

500	0.32
1000	0.38
2000	0.51
3000	0.63
4000	0.75
5000	0.87
6000	1
7000	1.11
8000	1.23
9000	1.35
10000	1.47
11000	1.59
12000	1.7
13000	1.82
14000	1.93
15000	2.05
20000	2.61
25000	3.15
30000	3.67
35000	4.18
40000	4.66
45000	5.13
50000	5.58
55000	6
60000	6.42
65000	6.81
70000	7.18
75000	7.54
80000	7.87
85000	8.19
90000	8.49
95000	8.77
100000	9.03

Ramp\_Curve Data, Name - None  
Flow                      Elevation

Outlet1 Data, Name - None  
Elevation              Flow



Outlet2 Data, Name - Current Operations

Elevation	Flow
2027	0
2033	5250
2037	12500
2044	27750
2050	46000
2077	171300

Outlet3 Data, Name - Brownlee Gates

Elevation	Flow
1976	51500
1990	69000
2010	87500
2027	100500
2050	116000
2079	132500

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - OP-1\_Scenario3&4\_92

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
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Base Data, Name - OP-1\_SCENARIO3\_1992

IDay	Data	OrInflow	Dependent
1	8500	False	False
20	8500	False	False
21	8613	False	False
22	8712	False	False
23	8539	False	False
24	8500	False	False
37	8500	False	False
38	8284	False	False
39	8500	False	False
151	8500	False	False
152	5562	False	False
153	5156.333	False	False
154	5233.333	False	False
155	5119.667	False	False
156	5193.667	False	False
157	4977	False	False
158	4866	False	False
159	4728.667	False	False
160	4789.333	False	False
161	4821.667	False	False
162	5016	False	False
163	4981	False	False

164	5214.667	False	False
165	5660.667	False	False
166	6080.333	False	False
167	6887	False	False
168	7546.667	False	False
169	8311	False	False
170	8325	False	False
171	8337	False	False
172	8281	False	False
173	7673	False	False
174	7195.667	False	False
175	6818.333	False	False
176	6184.667	False	False
177	5722.333	False	False
178	5461	False	False
179	5397.333	False	False
180	5840.667	False	False
181	6210	False	False
182	6666.333	False	False
183	7293	False	False
184	8005.667	False	False
185	8355	False	False
186	8366	False	False
187	8365	False	False
188	8374	False	False
189	8387	False	False
190	7742	False	False
191	7339	False	False
192	6760.333	False	False
193	6391	False	False
194	6163.667	False	False
195	6114	False	False
196	6212	False	False
197	6177.667	False	False
198	5962	False	False
199	5836.333	False	False
200	5628.667	False	False
201	5662.667	False	False
202	5700.667	False	False
203	5738	False	False
204	5813.667	False	False
205	5721.667	False	False
206	5885.667	False	False
207	5983.333	False	False
208	6089.333	False	False
209	6056.667	False	False
210	5931	False	False
211	5813	False	False
212	5561.333	False	False
213	5328.9	False	False
214	5233.533	False	False
215	5215.9	False	False
216	5314.467	False	False
217	5246.5	False	False
218	5250.267	False	False
219	5133.5	False	False
220	5032.8	False	False

221	5001.833	False	False
222	4955.467	False	False
223	4969.333	False	False
224	5029.967	False	False
225	5075.933	False	False
226	5242.767	False	False
227	5259.667	False	False
228	5472.433	False	False
229	5392.033	False	False
230	5511.233	False	False
231	5490.1	False	False
232	5536.033	False	False
233	5550.7	False	False
234	5626.833	False	False
235	5626.133	False	False
236	5429.5	False	False
237	5413.5	False	False
238	5671.933	False	False
239	6141.7	False	False
240	6108.333	False	False
241	6076.467	False	False
242	6044.8	False	False
243	6112.9	False	False
244	6116.467	False	False
245	5998.1	False	False
246	6035.967	False	False
247	5993.967	False	False
248	6019.833	False	False
249	5936	False	False
250	6005.667	False	False
251	6237.667	False	False
252	6494.667	False	False
253	6668.667	False	False
254	6805.2	False	False
255	6733	False	False
256	6781	False	False
257	6598.667	False	False
258	6807.333	False	False
259	7017.333	False	False
260	7290.667	False	False
261	7394.667	False	False
262	7334	False	False
263	7099	False	False
264	7158.167	False	False
265	7366.633	False	False
266	7240.533	False	False
267	7131	False	False
268	6857.667	False	False
269	7111.333	False	False
270	7195.667	False	False
271	7374.667	False	False
272	7760	False	False
273	7762.333	False	False
274	7891.667	False	False
275	7759.667	False	False
276	8023.667	False	False
277	7669	False	False

278	7468.667	False	False
279	7191.667	False	False
280	7309.333	False	False
281	7554.333	False	False
282	7712.667	False	False
283	8204.333	False	False
284	8301	False	False
285	8461	False	False
286	8500	False	False
293	8500	False	False
294	9000	False	False
345	9000	False	False
346	8500	False	False
347	8412	False	False
348	8404	False	False
349	8406	False	False
350	8411	False	False
351	8405	False	False
352	8405	False	False
353	8551	False	False
354	8573	False	False
355	8540	False	False
356	8400	False	False
357	8400	False	False
358	8401	False	False
359	8408	False	False
360	8391	False	False
361	8392	False	False
362	8453	False	False
363	8500	False	False
365	8500	False	False

Target\_Elev Data, Name - Proposed Ops Low  
IDay                    Elevation                    HardTarget

1	2076	0
7	2076	0
121	2076	0
189	2076	0
243	2072	0
252	2072	0
365	2076	0

Flood\_Elev Data, Name - H2077 all year  
IDay                    Elevation

1	2077
365	2077

Min\_Elev Data, Name - H1976 all year  
IDay                    Elevation

1	1976
365	1976

Level\_Fluct Data, Name - LF3 all yr  
IDay                    Weekday                    Weekend                    Hard                    Spill

1	3	3	False	False
244	3	3	False	False
365	3	3	False	False

Level\_Rate Data, Name - None  
 IDay Rate

Flashboard Data, Name - None  
 Elevation Volume Trip Reset

Bypass Data, Name - None  
 IDay Data OrInflow Destination

Ramp\_Rate Data, Name - None  
 IDay UpRampDay UpRampHour DownRampDay DownRampHour Type  
 Peak\_Inside

Withdrawal Data, Name - None  
 Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
 Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 6, Name = Current Operations  
 Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 34, Name = Current Operations  
 Head Flow Eff

**IPC Proprietary Data**

Turbine Performance, ID = 47, Name = Unit 5 n  
 Head Flow Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 5, Name = Unit 5 Current Ops  
 gOutput Eff Cap

**IPC Proprietary Data**

Generator Performance Data, ID = 6, Name = Units 1 - 4 Current Ops  
 gOutput Eff Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay Unit

Min\_Unit Data, Name - None  
Head Flow Eff CenterLine Headloss  
GeneratorEff OpStyle

Scenario Information for Oxbow

Physical Setting Conditions, Name - Current Operations

Res\_Storage Data, Name - CEQUAL RS Curve

Elevation	Storage
1786.42	38536.44
1789.7	41746
1792.98	44954.86
1796.3	48465
1799.54	51975.63
1802.8	55731
1806.1	59487

Tailwater Data, Name - Current Operations

Flow	Elevation
1	1490

Ramp\_Curve Data, Name - None

Flow	Elevation
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Outlet1 Data, Name - None

Elevation	Flow
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Outlet2 Data, Name - Current Operations

Elevation	Flow
1755	0
1765	25000
1773	50000
1778	55000
1783	100000
1787	125000
1792	150000
1795	175000
1798	200000
1802	225000
1805	250000

1808 275000  
1811 300000

Outlet3 Data, Name - None  
Elevation Flow

Plant\_Options Data, Name - Current Operations  
Time\_Delay Min\_Op\_Flow Min\_RC\_Flow Op\_Type PeakorMax  
0 0 0 1 2

Operating Setting Conditions, Name - Proposed Ops

Minimum Data, Name - None  
IDay Data OrInflow Dependent

Base Data, Name - None  
IDay Data OrInflow Dependent

Target\_Elev Data, Name - H1803  
IDay Elevation HardTarget  
1 1803 0  
365 1803 0

Flood\_Elev Data, Name - Current Operations  
IDay Elevation  
1 1805  
365 1805

Min\_Elev Data, Name - H1795 all year  
IDay Elevation  
1 1795  
365 1795

Level\_Fluct Data, Name - LF5 all year  
IDay Weekday Weekend Hard Spill  
1 5 5 True False  
365 5 5 True False

Level\_Rate Data, Name - None  
IDay Rate

Flashboard Data, Name - None  
Elevation Volume Trip Reset

Bypass Data, Name - Q100 all year  
IDay Data OrInflow Destination

1	100	False	3
365	100	False	3

Ramp\_Rate Data, Name - None

IDay	UpRampDay	UpRampHour	DownRampDay	DownRampHour	Type
Peak_Inside					

Withdrawal Data, Name - None

Withdrawal	Return
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Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations

Unit_No	Head_Loss_ID	Generator_Per	Turbine_Perf_	Gate_Leakage
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**IPC Proprietary Data**

Head Loss Data, ID = 8, Name = Current Operations

Unit_No	Unit_HL	Common_HL	Use_Com2	Max_Unit
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**IPC Proprietary Data**

Turbine Performance, ID = 37, Name = Current Operations

Head	Flow	Eff
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**IPC Proprietary Data**

Generator Performance Data, ID = 7, Name = Current Operations

gOutput	Eff	Cap
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**IPC Proprietary Data**

Maintenance Data, Name - None

IDay	Unit
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Min\_Unit Data, Name - None

Head	Flow	Eff	CenterLine	Headloss
GeneratorEff	OpStyle			

Scenario Information for Hells Canyon

Physical Setting Conditions, Name - PropOps\_HCDamCurve\_grid20ft

Res\_Storage Data, Name - CEQUAL RS Curve 20ft drawdown

Elevation	Storage
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1666.7	135049
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1668.3	138532
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1669.9	142016
1673.2	148983
1674.9	152701
1676.5	156419
1679.8	163855
1683.1	171642
1686.4	179429
1689.6	187475
1692.9	195521

Tailwater Data, Name - Current Operations

Flow	Elevation
------	-----------

6000	1467.98
7000	1468.91
8000	1469.68
9000	1470.34
12000	1471.91
14000	1472.77
18000	1474.1
20000	1474.89
24000	1476.1
28000	1477.21
30000	1477.74
35000	1478.98
40000	1480.14
44000	1481.01
48000	1481.84
54000	1483.01
60000	1484.09
65000	1484.92
72500	1486.06
75000	1486.41
80000	1487.08
85000	1487.68
90000	1488.24
95000	1488.73
100000	1489.18
105000	1489.57

Ramp\_Curve Data, Name - HC Dam rating curve

Flow	Elevation
------	-----------

0	59
3950	62
4710	62.5
5531	63
6412	63.5
7352	64
9407	65
10520	65.5
11690	66
12920	66.5
14200	67
16940	68
19890	69
23050	70

26430	71
30020	72
33820	73
37830	74
42040	75
46450	76
51070	77
55880	78
60890	79
66100	80
71500	81
77100	82
82900	83
88890	84
95070	85
101400	86
108000	87

Outlet1 Data, Name - None  
Elevation      Flow

Outlet2 Data, Name - Current Operations  
Elevation      Flow

1600	0
1668	168000
1673	195000
1678	226000
1683	255000
1688	284000
1691	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	2	2

Operating Setting Conditions, Name - OP-1\_Scenario4\_low\_92

Minimum Data, Name - OP-1\_Scenario3\_92

IDay	Data	OrInflow	Dependent
1	8500	False	False
20	8500	False	False
21	8710	False	False
22	8810	False	False
23	8640	False	False
24	8500	False	False
37	8500	False	False
38	8520	False	False
39	8500	False	False
151	8500	False	False

152	5801	False	False
153	5376.333	False	False
154	5433.333	False	False
155	5299.667	False	False
156	5356.667	False	False
157	5125	False	False
158	5002	False	False
159	4855.667	False	False
160	4907.333	False	False
161	4923.667	False	False
162	5118	False	False
163	5082	False	False
164	5445.667	False	False
165	5874.667	False	False
166	6301.333	False	False
167	7143	False	False
168	7766.667	False	False
169	8500	False	False
170	8500	False	False
171	8500	False	False
172	8426	False	False
173	7804	False	False
174	7303.667	False	False
175	6913.333	False	False
176	6266.667	False	False
177	5817.333	False	False
178	5562	False	False
179	5503.333	False	False
180	6009.667	False	False
181	6368	False	False
182	6837.333	False	False
183	7463	False	False
184	8164.667	False	False
185	8500	False	False
186	8500	False	False
187	8500	False	False
188	8500	False	False
189	8500	False	False
190	7843	False	False
191	7428	False	False
192	6839.333	False	False
193	6468	False	False
194	6235.667	False	False
195	6176	False	False
196	6271	False	False
197	6231.667	False	False
198	6012	False	False
199	5884.333	False	False
200	5676.667	False	False
201	5711.667	False	False
202	5751.667	False	False
203	5788	False	False
204	5869.667	False	False
205	5778.667	False	False
206	5938.667	False	False
207	6031.333	False	False
208	6136.333	False	False

209	6098.667	False	False
210	5971	False	False
211	5851	False	False
212	5598.333	False	False
213	5364	False	False
214	5267.333	False	False
215	5250	False	False
216	5348.667	False	False
217	5279	False	False
218	5283.667	False	False
219	5167	False	False
220	5066	False	False
221	5035.333	False	False
222	4988.667	False	False
223	5002.333	False	False
224	5062.667	False	False
225	5108.333	False	False
226	5273.667	False	False
227	5290.667	False	False
228	5505.333	False	False
229	5426.333	False	False
230	5543.333	False	False
231	5522	False	False
232	5566.333	False	False
233	5581	False	False
234	5657.333	False	False
235	5659.333	False	False
236	5464	False	False
237	5447	False	False
238	5704.333	False	False
239	6174	False	False
240	6140.333	False	False
241	6107.667	False	False
242	6075	False	False
243	6144	False	False
244	6147.667	False	False
245	6029	False	False
246	6066.667	False	False
247	6026.667	False	False
248	6054.333	False	False
249	5972	False	False
250	6041.667	False	False
251	6273.667	False	False
252	6530.667	False	False
253	6703.667	False	False
254	6840	False	False
255	6769	False	False
256	6817	False	False
257	6635.667	False	False
258	6844.333	False	False
259	7054.333	False	False
260	7326.667	False	False
261	7431.667	False	False
262	7370	False	False
263	7134	False	False
264	7192.667	False	False
265	7400.333	False	False

266	7274.333	False	False
267	7166	False	False
268	6896.667	False	False
269	7150.333	False	False
270	7236.667	False	False
271	7417.667	False	False
272	7801	False	False
273	7801.333	False	False
274	7929.667	False	False
275	7796.667	False	False
276	8064.667	False	False
277	7713	False	False
278	7511.667	False	False
279	7234.667	False	False
280	7352.333	False	False
281	7596.333	False	False
282	7755.667	False	False
283	8246.333	False	False
284	8341	False	False
285	8500	False	False
286	8500	False	False
293	8500	False	False
294	9000	False	False
345	9000	False	False
346	8500	False	False
347	8500	False	False
348	8500	False	False
349	8500	False	False
350	8500	False	False
351	8500	False	False
352	8500	False	False
353	8630	False	False
354	8680	False	False
355	8650	False	False
356	8500	False	False
357	8500	False	False
358	8500	False	False
359	8500	False	False
360	8500	False	False
361	8500	False	False
362	8560	False	False
363	8500	False	False
365	8500	False	False

Base Data, Name - None

IDay	Data	OrInflow	Dependent
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Target\_Elev Data, Name - H1687

IDay	Elevation	HardTarget
1	1687	0
365	1687	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
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1 1688  
365 1688

Min\_Elev Data, Name - 1668ft all year  
IDay Elevation

1 1668  
365 1668

Level\_Fluct Data, Name - LF20 all year

IDay	Weekday	Weekend	Hard	Spill
1	20	20	False	False
365	20	20	False	False

Level\_Rate Data, Name - None

IDay Rate

Flashboard Data, Name - None

Elevation Volume Trip Reset

Bypass Data, Name - None

IDay Data OrInflow Destination

Ramp\_Rate Data, Name - OP-1\_Scenariolf

IDay	UpRampDay	UpRampHour	DownRampDay	DownRampHour	Type
1	2	0.5	2	0.5	Stage
False					
60	2	0.167	2	0.167	Stage
False					
151	2	0.167	2	0.167	Stage
False					
152	2	0.5	2	0.5	Stage
False					
273	2	0.5	2	0.5	Stage
False					
274	2	0.5	2	0.5	Stage
False					
365	2	0.5	2	0.5	Stage
False					

Withdrawal Data, Name - None

Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations

Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 11, Name = Current Operations  
Unit\_No            Unit\_HL            Common\_HL            Use\_Com2            Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 40, Name = Current Operations  
Head            Flow            Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 9, Name = Current Operations  
gOutput            Eff            Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay            Unit

Min\_Unit Data, Name - None  
Head            Flow            Eff            CenterLine            Headloss  
GeneratorEff    OpStyle





Complete Scenario Data for Scenario—OP-1\_Scenario4\_low\_94 written out on 11/03/2004 10:57:35 AM

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Complete Scenario Data for Scenario - OP-1\_Scenario4\_low\_94  
 Written out on 11/03/2004 10:57:35 AM

System Misc. Name - Proposed	Ops Low	ForecastDays	ForecastAcr
Load_Shape_ID CarryOver	MaxPeak		
Fall_Chinook_ Flood_Control	Max_Discharge		
8	False	3	1
4	0		14

Load_Shape Data, Name - FP01	SP HL pricing
IMonth	Period Duration Price
1	1 6
1	2 0
1	3 6
1	4 5
1	5 5
1	6 0
1	7 2
1	8 7
1	9 6
1	10 4
1	11 5
1	12 2
2	1 6
2	2 0
2	3 6
2	4 5
2	5 5
2	6 0
2	7 2
2	8 7
2	9 6
2	10 4
2	11 5
2	12 2
3	1 6
3	2 0
3	3 6
3	4 5
3	5 5
3	6 0
3	7 2
3	8 7
3	9 6
3	10 4
3	11 5
3	12 2
4	1 6
4	2 0
4	3 8
4	4 0
4	5 8
4	6 0
4	7 2

4	8	7
4	9	8
4	10	0
4	11	7
4	12	2
5	1	6
5	2	0
5	3	8
5	4	0
5	5	8
5	6	0
5	7	2
5	8	7
5	9	8
5	10	0
5	11	7
5	12	2
6	1	6
6	2	0
6	3	8
6	4	0
6	5	8
6	6	0
6	7	2
6	8	7
6	9	8
6	10	0
6	11	7
6	12	2
7	1	6
7	2	0
7	3	16
7	4	0
7	5	0
7	6	0
7	7	2
7	8	8
7	9	14
7	10	0
7	11	0
7	12	2
8	1	6
8	2	0
8	3	16
8	4	0
8	5	0
8	6	0
8	7	2
8	8	8
8	9	14
8	10	0
8	11	0
8	12	2
9	1	6
9	2	0
9	3	16
9	4	0

9	5	0
9	6	0
9	7	2
9	8	8
9	9	14
9	10	0
9	11	0
9	12	2
10	1	6
10	2	0
10	3	6
10	4	4
10	5	6
10	6	0
10	7	2
10	8	7
10	9	6
10	10	4
10	11	5
10	12	2
11	1	6
11	2	0
11	3	6
11	4	4
11	5	6
11	6	0
11	7	2
11	8	7
11	9	6
11	10	4
11	11	5
11	12	2
12	1	6
12	2	0
12	3	6
12	4	4
12	5	6
12	6	0
12	7	2
12	8	7
12	9	6
12	10	4
12	11	5
12	12	2

Fall\_Chinook Data, Name - Proposed Ops Low

Draw_Start	Refill_Start	Refill_End	Max_Discharge	Minimum_Max	Maximum_Max	Target_Elevat	Refill_Elevat	Allow_Peak
252	294	345	9000	0	0			
0	2076	False						

Flood\_Control Data, Name - RC V2000

IDay	Dalles_Foreca	Brownlee_Fore	Req_Volume
59	75	3	0
59	75	4	200

59	75	5	300
59	75	6	400
59	85	3	150
59	85	4	300
59	85	5	350
59	85	6	400
59	95	3	200
59	95	4	300
59	95	5	350
59	95	6	400
59	105	3	300
59	105	4	400
59	105	5	400
59	105	6	400
59	115	3	300
59	115	4	400
59	115	5	500
59	115	6	500
90	75	3	0
90	75	4	100
90	75	5	200
90	75	6	350
90	85	3	100
90	85	4	300
90	85	5	400
90	85	6	450
90	95	3	150
90	95	4	300
90	95	5	400
90	95	6	500
90	105	3	200
90	105	4	425
90	105	5	475
90	105	6	500
90	115	3	250
90	115	4	450
90	115	5	600
90	115	6	750
105	75	3	0
105	75	4	50
105	75	5	150
105	75	6	250
105	85	3	50
105	85	4	250
105	85	5	400
105	85	6	500
105	95	3	100
105	95	4	300
105	95	5	425
105	95	6	550
105	105	3	150
105	105	4	450
105	105	5	525
105	105	6	600
105	115	3	200
105	115	4	500
105	115	5	650

105	115	6	850
120	75	3	0
120	75	4	0
120	75	5	50
120	75	6	150
120	85	3	0
120	85	4	250
120	85	5	400
120	85	6	500
120	95	3	50
120	95	4	300
120	95	5	450
120	95	6	600
120	105	3	100
120	105	4	450
120	105	5	550
120	105	6	700
120	115	3	150
120	115	4	550
120	115	5	750
120	115	6	980

Max\_Discharge Data, Name - None  
IDay Flow

Scenario Information for Brownlee

Physical Setting Conditions, Name - Current Ops 97b

Res\_Storage Data, Name - CEQUAL97b

Elevation	Storage
1973.2	432247
1979.8	475263
1983.2	498341
1986.5	521420
1989.8	546048
1993.1	570676
1996.5	596713
1999.8	622750
2003.1	650212
2006.5	677675
2009.8	706573
2013.1	735471
2016.5	765566
2019.8	795660
2023.1	827202
2029.8	891862
2033.1	924980
2036.4	959727
2039.8	994474

2043.1	1030689
2046.4	1066905
2049.8	1104803
2053.1	1142701
2056.4	1182254
2059.7	1221807
2063.1	1263344
2066.4	1304880
2069.7	1348494
2073.06	1392108
2076.4	1437212
2079.7	1482317

Tailwater Data, Name - Current Operations  
Flow                      Elevation

500	0.32
1000	0.38
2000	0.51
3000	0.63
4000	0.75
5000	0.87
6000	1
7000	1.11
8000	1.23
9000	1.35
10000	1.47
11000	1.59
12000	1.7
13000	1.82
14000	1.93
15000	2.05
20000	2.61
25000	3.15
30000	3.67
35000	4.18
40000	4.66
45000	5.13
50000	5.58
55000	6
60000	6.42
65000	6.81
70000	7.18
75000	7.54
80000	7.87
85000	8.19
90000	8.49
95000	8.77
100000	9.03

Ramp\_Curve Data, Name - None  
Flow                      Elevation

Outlet1 Data, Name - None  
Elevation              Flow



Outlet2 Data, Name - Current Operations

Elevation	Flow
2027	0
2033	5250
2037	12500
2044	27750
2050	46000
2077	171300

Outlet3 Data, Name - Brownlee Gates

Elevation	Flow
1976	51500
1990	69000
2010	87500
2027	100500
2050	116000
2079	132500

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - OP-1\_Scenario3&4\_92

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - OP-1\_SCENARIO3\_1992

IDay	Data	OrInflow	Dependent
1	8500	False	False
20	8500	False	False
21	8613	False	False
22	8712	False	False
23	8539	False	False
24	8500	False	False
37	8500	False	False
38	8284	False	False
39	8500	False	False
151	8500	False	False
152	5562	False	False
153	5156.333	False	False
154	5233.333	False	False
155	5119.667	False	False
156	5193.667	False	False
157	4977	False	False
158	4866	False	False
159	4728.667	False	False
160	4789.333	False	False
161	4821.667	False	False
162	5016	False	False
163	4981	False	False

164	5214.667	False	False
165	5660.667	False	False
166	6080.333	False	False
167	6887	False	False
168	7546.667	False	False
169	8311	False	False
170	8325	False	False
171	8337	False	False
172	8281	False	False
173	7673	False	False
174	7195.667	False	False
175	6818.333	False	False
176	6184.667	False	False
177	5722.333	False	False
178	5461	False	False
179	5397.333	False	False
180	5840.667	False	False
181	6210	False	False
182	6666.333	False	False
183	7293	False	False
184	8005.667	False	False
185	8355	False	False
186	8366	False	False
187	8365	False	False
188	8374	False	False
189	8387	False	False
190	7742	False	False
191	7339	False	False
192	6760.333	False	False
193	6391	False	False
194	6163.667	False	False
195	6114	False	False
196	6212	False	False
197	6177.667	False	False
198	5962	False	False
199	5836.333	False	False
200	5628.667	False	False
201	5662.667	False	False
202	5700.667	False	False
203	5738	False	False
204	5813.667	False	False
205	5721.667	False	False
206	5885.667	False	False
207	5983.333	False	False
208	6089.333	False	False
209	6056.667	False	False
210	5931	False	False
211	5813	False	False
212	5561.333	False	False
213	5328.9	False	False
214	5233.533	False	False
215	5215.9	False	False
216	5314.467	False	False
217	5246.5	False	False
218	5250.267	False	False
219	5133.5	False	False
220	5032.8	False	False

221	5001.833	False	False
222	4955.467	False	False
223	4969.333	False	False
224	5029.967	False	False
225	5075.933	False	False
226	5242.767	False	False
227	5259.667	False	False
228	5472.433	False	False
229	5392.033	False	False
230	5511.233	False	False
231	5490.1	False	False
232	5536.033	False	False
233	5550.7	False	False
234	5626.833	False	False
235	5626.133	False	False
236	5429.5	False	False
237	5413.5	False	False
238	5671.933	False	False
239	6141.7	False	False
240	6108.333	False	False
241	6076.467	False	False
242	6044.8	False	False
243	6112.9	False	False
244	6116.467	False	False
245	5998.1	False	False
246	6035.967	False	False
247	5993.967	False	False
248	6019.833	False	False
249	5936	False	False
250	6005.667	False	False
251	6237.667	False	False
252	6494.667	False	False
253	6668.667	False	False
254	6805.2	False	False
255	6733	False	False
256	6781	False	False
257	6598.667	False	False
258	6807.333	False	False
259	7017.333	False	False
260	7290.667	False	False
261	7394.667	False	False
262	7334	False	False
263	7099	False	False
264	7158.167	False	False
265	7366.633	False	False
266	7240.533	False	False
267	7131	False	False
268	6857.667	False	False
269	7111.333	False	False
270	7195.667	False	False
271	7374.667	False	False
272	7760	False	False
273	7762.333	False	False
274	7891.667	False	False
275	7759.667	False	False
276	8023.667	False	False
277	7669	False	False

278	7468.667	False	False
279	7191.667	False	False
280	7309.333	False	False
281	7554.333	False	False
282	7712.667	False	False
283	8204.333	False	False
284	8301	False	False
285	8461	False	False
286	8500	False	False
293	8500	False	False
294	9000	False	False
345	9000	False	False
346	8500	False	False
347	8412	False	False
348	8404	False	False
349	8406	False	False
350	8411	False	False
351	8405	False	False
352	8405	False	False
353	8551	False	False
354	8573	False	False
355	8540	False	False
356	8400	False	False
357	8400	False	False
358	8401	False	False
359	8408	False	False
360	8391	False	False
361	8392	False	False
362	8453	False	False
363	8500	False	False
365	8500	False	False

Target\_Elev Data, Name - Proposed Ops Low  
IDay                    Elevation                    HardTarget

1	2076	0
7	2076	0
121	2076	0
189	2076	0
243	2072	0
252	2072	0
365	2076	0

Flood\_Elev Data, Name - H2077 all year  
IDay                    Elevation

1	2077
365	2077

Min\_Elev Data, Name - H1976 all year  
IDay                    Elevation

1	1976
365	1976

Level\_Fluct Data, Name - LF3 all yr  
IDay                    Weekday                    Weekend                    Hard                    Spill

1	3	3	False	False
244	3	3	False	False
365	3	3	False	False

Level\_Rate Data, Name - None  
 IDay Rate

Flashboard Data, Name - None  
 Elevation Volume Trip Reset

Bypass Data, Name - None  
 IDay Data OrInflow Destination

Ramp\_Rate Data, Name - None  
 IDay UpRampDay UpRampHour DownRampDay DownRampHour Type  
 Peak\_Inside

Withdrawal Data, Name - None  
 Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
 Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 6, Name = Current Operations  
 Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 34, Name = Current Operations  
 Head Flow Eff

**IPC Proprietary Data**

Turbine Performance, ID = 47, Name = Unit 5 n  
 Head Flow Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 5, Name = Unit 5 Current Ops  
 gOutput Eff Cap

**IPC Proprietary Data**

Generator Performance Data, ID = 6, Name = Units 1 - 4 Current Ops  
 gOutput Eff Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay Unit

Min\_Unit Data, Name - None  
Head Flow Eff CenterLine Headloss  
GeneratorEff OpStyle

Scenario Information for Oxbow

Physical Setting Conditions, Name - Current Operations

Res\_Storage Data, Name - CEQUAL RS Curve

Elevation	Storage
1786.42	38536.44
1789.7	41746
1792.98	44954.86
1796.3	48465
1799.54	51975.63
1802.8	55731
1806.1	59487

Tailwater Data, Name - Current Operations

Flow	Elevation
1	1490

Ramp\_Curve Data, Name - None

Flow	Elevation
------	-----------

Outlet1 Data, Name - None

Elevation	Flow
-----------	------

Outlet2 Data, Name - Current Operations

Elevation	Flow
1755	0
1765	25000
1773	50000
1778	55000
1783	100000
1787	125000
1792	150000
1795	175000
1798	200000
1802	225000
1805	250000

1808 275000  
1811 300000

Outlet3 Data, Name - None  
Elevation Flow

Plant\_Options Data, Name - Current Operations  
Time\_Delay Min\_Op\_Flow Min\_RC\_Flow Op\_Type PeakorMax  
0 0 0 1 2

Operating Setting Conditions, Name - Proposed Ops

Minimum Data, Name - None  
IDay Data OrInflow Dependent

Base Data, Name - None  
IDay Data OrInflow Dependent

Target\_Elev Data, Name - H1803  
IDay Elevation HardTarget  
1 1803 0  
365 1803 0

Flood\_Elev Data, Name - Current Operations  
IDay Elevation  
1 1805  
365 1805

Min\_Elev Data, Name - H1795 all year  
IDay Elevation  
1 1795  
365 1795

Level\_Fluct Data, Name - LF5 all year  
IDay Weekday Weekend Hard Spill  
1 5 5 True False  
365 5 5 True False

Level\_Rate Data, Name - None  
IDay Rate

Flashboard Data, Name - None  
Elevation Volume Trip Reset

Bypass Data, Name - Q100 all year  
IDay Data OrInflow Destination

1	100	False	3
365	100	False	3

Ramp\_Rate Data, Name - None

IDay	UpRampDay	UpRampHour	DownRampDay	DownRampHour	Type
Peak_Inside					

Withdrawal Data, Name - None

Withdrawal	Return
------------	--------

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations

Unit_No	Head_Loss_ID	Generator_Per	Turbine_Perf_	Gate_Leakage
---------	--------------	---------------	---------------	--------------

**IPC Proprietary Data**

Head Loss Data, ID = 8, Name = Current Operations

Unit_No	Unit_HL	Common_HL	Use_Com2	Max_Unit
---------	---------	-----------	----------	----------

**IPC Proprietary Data**

Turbine Performance, ID = 37, Name = Current Operations

Head	Flow	Eff
------	------	-----

**IPC Proprietary Data**

Generator Performance Data, ID = 7, Name = Current Operations

gOutput	Eff	Cap
---------	-----	-----

**IPC Proprietary Data**

Maintenance Data, Name - None

IDay	Unit
------	------

Min\_Unit Data, Name - None

Head	Flow	Eff	CenterLine	Headloss
GeneratorEff	OpStyle			

Scenario Information for Hells Canyon

Physical Setting Conditions, Name - PropOps\_HCDamCurve\_grid20ft

Res\_Storage Data, Name - CEQUAL RS Curve 20ft drawdown

Elevation	Storage
-----------	---------

1666.7	135049
--------	--------

1668.3	138532
--------	--------



1669.9	142016
1673.2	148983
1674.9	152701
1676.5	156419
1679.8	163855
1683.1	171642
1686.4	179429
1689.6	187475
1692.9	195521

Tailwater Data, Name - Current Operations

Flow	Elevation
------	-----------

6000	1467.98
7000	1468.91
8000	1469.68
9000	1470.34
12000	1471.91
14000	1472.77
18000	1474.1
20000	1474.89
24000	1476.1
28000	1477.21
30000	1477.74
35000	1478.98
40000	1480.14
44000	1481.01
48000	1481.84
54000	1483.01
60000	1484.09
65000	1484.92
72500	1486.06
75000	1486.41
80000	1487.08
85000	1487.68
90000	1488.24
95000	1488.73
100000	1489.18
105000	1489.57

Ramp\_Curve Data, Name - HC Dam rating curve

Flow	Elevation
------	-----------

0	59
3950	62
4710	62.5
5531	63
6412	63.5
7352	64
9407	65
10520	65.5
11690	66
12920	66.5
14200	67
16940	68
19890	69
23050	70

26430	71
30020	72
33820	73
37830	74
42040	75
46450	76
51070	77
55880	78
60890	79
66100	80
71500	81
77100	82
82900	83
88890	84
95070	85
101400	86
108000	87

Outlet1 Data, Name - None  
Elevation      Flow

Outlet2 Data, Name - Current Operations  
Elevation      Flow

1600	0
1668	168000
1673	195000
1678	226000
1683	255000
1688	284000
1691	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	2	2

Operating Setting Conditions, Name - OP-1\_Scenario4\_low\_94

Minimum Data, Name - OP-1\_Scenario3\_94

IDay	Data	OrInflow	Dependent
1	8500	False	False
31	8500	False	False
32	8600	False	False
33	9140	False	False
34	9240	False	False
35	9060	False	False
36	8810	False	False
37	8730	False	False
38	8500	False	False
39	8500	False	False

152	8500	False	False
153	8500	False	False
154	8500	False	False
155	8500	False	False
156	8500	False	False
157	8500	False	False
158	8500	False	False
159	8500	False	False
160	8500	False	False
161	8500	False	False
162	8500	False	False
163	8500	False	False
164	8500	False	False
165	8500	False	False
166	8500	False	False
167	8500	False	False
168	8500	False	False
169	8500	False	False
170	8421	False	False
171	8465	False	False
172	8280.333	False	False
173	8288.667	False	False
174	7929	False	False
175	7663	False	False
176	7531	False	False
177	7382	False	False
178	7421	False	False
179	7267	False	False
180	7154.333	False	False
181	7186.667	False	False
182	7089.667	False	False
183	7384.333	False	False
184	7626	False	False
185	7883	False	False
186	8082	False	False
187	8376.333	False	False
188	8500	False	False
220	8500	False	False
221	8520	False	False
222	8434	False	False
223	8352	False	False
224	8238.333	False	False
225	8078	False	False
226	7649.667	False	False
227	7621	False	False
228	7744.333	False	False
229	7814.667	False	False
230	7665	False	False
231	7517	False	False
232	7432.667	False	False
233	7426.333	False	False
234	7245	False	False
235	7383.667	False	False
236	7347.333	False	False
237	7535	False	False
238	7579.667	False	False
239	7638.333	False	False

240	7814.667	False	False
241	7883.333	False	False
242	8150.667	False	False
243	8007.333	False	False
244	7942.667	False	False
245	7887.333	False	False
246	8004.333	False	False
247	8172.667	False	False
248	8242.333	False	False
249	8286.667	False	False
250	8343.333	False	False
251	8392.667	False	False
252	8344.333	False	False
253	8127.333	False	False
254	8283.333	False	False
255	8290.667	False	False
256	8243.667	False	False
257	8175	False	False
258	8172.333	False	False
259	8462	False	False
260	8519	False	False
261	8801	False	False
262	8776.667	False	False
263	8737.333	False	False
264	8543.333	False	False
265	8470	False	False
266	8400.667	False	False
267	8405.333	False	False
268	8538.667	False	False
269	8436.333	False	False
270	8446.333	False	False
271	8485	False	False
272	8720	False	False
273	8973	False	False
274	8960.667	False	False
275	9090	False	False
276	9080	False	False
277	9040	False	False
278	9020	False	False
279	8930	False	False
280	8830	False	False
281	8760	False	False
282	8770	False	False
283	8770	False	False
284	8750	False	False
285	8720	False	False
286	8670	False	False
287	8620	False	False
288	8520	False	False
289	8500	False	False
290	8500	False	False
291	8500	False	False
292	8500	False	False
293	8500	False	False
294	9000	False	False
345	9000	False	False
346	9060	False	False

347	8830	False	False
348	8540	False	False
349	8500	False	False
350	8550	False	False
351	8520	False	False
352	8500	False	False
353	8500	False	False
354	8500	False	False
355	8500	False	False
356	8500	False	False
357	8770	False	False
358	9000	False	False
359	8840	False	False
360	8570	False	False
361	8500	False	False
362	8500	False	False
363	8500	False	False
364	8500	False	False
365	8510	False	False

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1687

IDay	Elevation	HardTarget
1	1687	0
365	1687	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1688
365	1688

Min\_Elev Data, Name - 1668ft all year

IDay	Elevation
1	1668
365	1668

Level\_Fluct Data, Name - LF20 all year

IDay	Weekday	Weekend	Hard	Spill
1	20	20	False	False
365	20	20	False	False

Level\_Rate Data, Name - None

IDay	Rate
------	------

Flashboard Data, Name - None

Elevation	Volume	Trip	Reset
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Bypass Data, Name - None

IDay	Data	OrInflow	Destination		
Ramp_Rate Data, Name - OP-1_Scenario1f					
IDay	UpRampDay	UpRampHour	DownRampDay	DownRampHour	Type
1	2	0.5	2	0.5	Stage
False					
60	2	0.167	2	0.167	Stage
False					
151	2	0.167	2	0.167	Stage
False					
152	2	0.5	2	0.5	Stage
False					
273	2	0.5	2	0.5	Stage
False					
274	2	0.5	2	0.5	Stage
False					
365	2	0.5	2	0.5	Stage
False					

Withdrawal Data, Name - None  
 Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
 Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 11, Name = Current Operations  
 Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 40, Name = Current Operations  
 Head Flow Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 9, Name = Current Operations  
 gOutput Eff Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
 IDay Unit

Min\_Unit Data, Name - None  
 Head Flow Eff CenterLine Headloss  
 GeneratorEff OpStyle

Complete Scenario Data for Scenario—OP-1\_Scenario5 written out on 11/03/2004 10:58:08 AM

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Complete Scenario Data for Scenario - OP-1\_Scenario5  
 Written out on 11/03/2004 10:58:08 AM

System Misc. Name - Run of River

Load_Shape_ID	CarryOver	MaxPeak	ForecastDays	ForecastAcr
Fall_Chinook_	Flood_Control	Max_Discharge		
6	False	False	1	1
0	0			0

Load\_Shape Data, Name - FP00 SP at HL pricing

IMonth	Period	Duration	Price
1	1	6	
1	2	0	
1	3	6	
1	4	5	
1	5	5	
1	6	0	
1	7	2	
1	8	7	
1	9	6	
1	10	4	
1	11	5	
1	12	2	
2	1	6	
2	2	0	
2	3	6	
2	4	5	
2	5	5	
2	6	0	
2	7	2	
2	8	7	
2	9	6	
2	10	4	
2	11	5	
2	12	2	
3	1	6	
3	2	0	
3	3	6	
3	4	5	
3	5	5	
3	6	0	
3	7	2	
3	8	7	
3	9	6	
3	10	4	
3	11	5	
3	12	2	
4	1	6	
4	2	0	
4	3	8	
4	4	0	
4	5	8	
4	6	0	
4	7	2	

4	8	7
4	9	8
4	10	0
4	11	7
4	12	2
5	1	6
5	2	0
5	3	8
5	4	0
5	5	8
5	6	0
5	7	2
5	8	7
5	9	8
5	10	0
5	11	7
5	12	2
6	1	6
6	2	0
6	3	8
6	4	0
6	5	8
6	6	0
6	7	2
6	8	7
6	9	8
6	10	0
6	11	7
6	12	2
7	1	6
7	2	0
7	3	16
7	4	0
7	5	0
7	6	0
7	7	2
7	8	8
7	9	14
7	10	0
7	11	0
7	12	2
8	1	6
8	2	0
8	3	16
8	4	0
8	5	0
8	6	0
8	7	2
8	8	8
8	9	14
8	10	0
8	11	0
8	12	2
9	1	6
9	2	0
9	3	16
9	4	0

9	5	0
9	6	0
9	7	2
9	8	8
9	9	14
9	10	0
9	11	0
9	12	2
10	1	6
10	2	0
10	3	6
10	4	4
10	5	6
10	6	0
10	7	2
10	8	7
10	9	6
10	10	4
10	11	5
10	12	2
11	1	6
11	2	0
11	3	6
11	4	4
11	5	6
11	6	0
11	7	2
11	8	7
11	9	6
11	10	4
11	11	5
11	12	2
12	1	6
12	2	0
12	3	6
12	4	4
12	5	6
12	6	0
12	7	2
12	8	7
12	9	6
12	10	4
12	11	5
12	12	2

Fall\_Chinook Data, Name - None

Draw_Start	Refill_Start	Refill_End	Max_Discharge	Minimum_Max
Maximum_Max	Target_Elevat	Refill_Elevat	Allow_Peak	

Flood\_Control Data, Name - None

IDay	Dalles_Foreca	Brownlee_Fore	Req_Volume
------	---------------	---------------	------------

Max\_Discharge Data, Name - None

IDay	Flow
------	------

Scenario Information for Brownlee

Physical Setting Conditions, Name - Run of River

Res\_Storage Data, Name - Current Operations

Elevation	Storage
-----------	---------

1785	0
1795	65
1805	329
1815	1516
1825	4536
1835	9262
1845	15774
1855	24588
1865	36095
1875	50512
1885	68017
1895	89040
1905	113558
1915	141587
1925	173437
1935	208704
1945	247870
1955	290872
1965	338435
1975	392386
1980	422227
1985	453896
1990	487337
1995	522472
2000	559131
2005	597495
2010	637456
2015	678918
2020	721987
2025	766744
2030	813073
2031	822529
2032	832048
2033	841633
2034	851284
2035	861002
2036	870786
2037	880637
2038	890554
2039	900534
2040	910575
2041	920678
2042	930847
2043	941087

2044	951403
2045	961806
2046	972303
2047	982896
2048	993581
2049	1004354
2050	1015216
2051	1026170
2052	1037224
2053	1048381
2054	1059641
2055	1071001
2056	1082463
2057	1094035
2058	1105726
2059	1117548
2060	1129509
2061	1141629
2062	1153922
2063	1166375
2064	1178977
2065	1191723
2066	1204615
2067	1217646
2068	1230821
2069	1244150
2070	1257637
2071	1271285
2072	1285068
2073	1298968
2074	1312980
2075	1327087
2076	1341287
2077	1355578
2085	1547000

Tailwater Data, Name - Current Operations  
Flow                      Elevation

500	0.32
1000	0.38
2000	0.51
3000	0.63
4000	0.75
5000	0.87
6000	1
7000	1.11
8000	1.23
9000	1.35
10000	1.47
11000	1.59
12000	1.7
13000	1.82
14000	1.93
15000	2.05
20000	2.61
25000	3.15

30000	3.67
35000	4.18
40000	4.66
45000	5.13
50000	5.58
55000	6
60000	6.42
65000	6.81
70000	7.18
75000	7.54
80000	7.87
85000	8.19
90000	8.49
95000	8.77
100000	9.03

Ramp\_Curve Data, Name - None  
Flow                    Elevation

Outlet1 Data, Name - None  
Elevation            Flow

Outlet2 Data, Name - Current Operations  
Elevation            Flow

2027	0
2033	5250
2037	12500
2044	27750
2050	46000
2077	171300

Outlet3 Data, Name - Brownlee Gates  
Elevation            Flow

1976	51500
1990	69000
2010	87500
2027	100500
2050	116000
2079	132500

Plant\_Options Data, Name - Run of River

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	5	2

Operating Setting Conditions, Name - run of river min pool

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - target1976

IDay	Elevation	HardTarget
1	1976	0
365	1976	0

Flood\_Elev Data, Name - H1976 AWG1

IDay	Elevation
1	1976
365	1976

Min\_Elev Data, Name - H1976 all year

IDay	Elevation
1	1976
365	1976

Level\_Fluct Data, Name - LF0 all year

IDay	Weekday	Weekend	Hard	Spill
1	0	0	True	False
365	0	0	True	False

Level\_Rate Data, Name - None

IDay	Rate
------	------

Flashboard Data, Name - None

Elevation	Volume	Trip	Reset
-----------	--------	------	-------

Bypass Data, Name - None

IDay	Data	OrInflow	Destination
------	------	----------	-------------

Ramp\_Rate Data, Name - None

IDay	UpRampDay	UpRampHour	DownRampDay	DownRampHour	Type
------	-----------	------------	-------------	--------------	------

Peak\_Inside

Withdrawal Data, Name - None

Withdrawal	Return
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Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations

Unit_No	Head_Loss_ID	Generator_Per	Turbine_Perf_	Gate_Leakage
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**IPC Proprietary Data**

Head Loss Data, ID = 6, Name = Current Operations

Unit_No	Unit_HL	Common_HL	Use_Com2	Max_Unit
---------	---------	-----------	----------	----------

**IPC Proprietary Data**

Turbine Performance, ID = 34, Name = Current Operations  
Head                      Flow                      Eff

**IPC Proprietary Data**

Turbine Performance, ID = 47, Name = Unit 5 n  
Head                      Flow                      Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 5, Name = Unit 5 Current Ops  
gOutput                      Eff                      Cap

**IPC Proprietary Data**

Generator Performance Data, ID = 6, Name = Units 1 - 4 Current Ops  
gOutput                      Eff                      Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay                      Unit

Min\_Unit Data, Name - None  
Head                      Flow                      Eff                      CenterLine                      Headloss  
GeneratorEff                      OpStyle

Scenario Information for Oxbow

Physical Setting Conditions, Name - Run of River

Res\_Storage Data, Name - Current Operations

Elevation                      Storage

1710	0
1722	1500
1736	5000
1748	10000
1764	20000
1768	22500
1772	25800
1780	32400
1800	52500
1805	57920
1810	64168

Tailwater Data, Name - Current Operations

Flow                      Elevation



1 1490

Ramp\_Curve Data, Name - None

Flow Elevation

Outlet1 Data, Name - None

Elevation Flow

Outlet2 Data, Name - Current Operations

Elevation Flow

1755	0
1765	25000
1773	50000
1778	55000
1783	100000
1787	125000
1792	150000
1795	175000
1798	200000
1802	225000
1805	250000
1808	275000
1811	300000

Outlet3 Data, Name - None

Elevation Flow

Plant\_Options Data, Name - Run of River

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
------------	-------------	-------------	---------	-----------

0	0	0	5	2
---	---	---	---	---

Operating Setting Conditions, Name - Run of River

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1805

IDay	Elevation	HardTarget
------	-----------	------------

1	1805	0
365	1805	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
------	-----------

1	1805
---	------

365 1805

Min\_Elev Data, Name - H1795 all year

IDay Elevation

1 1795

365 1795

Level\_Fluct Data, Name - LF0 all year

IDay Weekday Weekend Hard Spill

1 0 0 True False

365 0 0 True False

Level\_Rate Data, Name - None

IDay Rate

Flashboard Data, Name - None

Elevation Volume Trip Reset

Bypass Data, Name - Q100 all year

IDay Data OrInflow Destination

1 100 False 3

365 100 False 3

Ramp\_Rate Data, Name - None

IDay UpRampDay UpRampHour DownRampDay DownRampHour Type  
Peak\_Inside

Withdrawal Data, Name - None

Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations

Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 8, Name = Current Operations

Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 37, Name = Current Operations

Head Flow Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 7, Name = Current Operations

gOutput Eff Cap

**IPC Proprietary Data**

Maintenance Data, Name - None

IDay                    Unit

Min\_Unit Data, Name - None

Head                    Flow                    Eff                    CenterLine            Headloss  
GeneratorEff    OpStyle

Scenario Information for Hells Canyon

Physical Setting Conditions, Name - Run of River

Res\_Storage Data, Name - CEQUAL RS Curve

Elevation            Storage

1674.9	152701
1676.5	156419
1679.8	163855
1683.1	171642
1686.4	179429
1689.6	187475
1692.9	195521

Tailwater Data, Name - Current Operations

Flow                    Elevation

6000	1467.98
7000	1468.91
8000	1469.68
9000	1470.34
12000	1471.91
14000	1472.77
18000	1474.1
20000	1474.89
24000	1476.1
28000	1477.21
30000	1477.74
35000	1478.98
40000	1480.14
44000	1481.01
48000	1481.84
54000	1483.01
60000	1484.09
65000	1484.92
72500	1486.06
75000	1486.41
80000	1487.08
85000	1487.68
90000	1488.24

95000	1488.73
100000	1489.18
105000	1489.57

Ramp\_Curve Data, Name - None  
Flow            Elevation

Outlet1 Data, Name - None  
Elevation      Flow

Outlet2 Data, Name - Current Operations  
Elevation      Flow

1600	0
1668	168000
1673	195000
1678	226000
1683	255000
1688	284000
1691	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant\_Options Data, Name - Run of River

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	5	2

Operating Setting Conditions, Name - Run of River

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1688

IDay	Elevation	HardTarget
1	1688	0
365	1688	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
------	-----------

1	1688
365	1688

Min\_Elev Data, Name - H1678 all year

IDay	Elevation
------	-----------

1 1678  
365 1678

Level\_Fluct Data, Name - LF0 all year

IDay	Weekday	Weekend	Hard	Spill
1	0	0	True	False
365	0	0	True	False

Level\_Rate Data, Name - None

IDay	Rate
------	------

Flashboard Data, Name - None

Elevation	Volume	Trip	Reset
-----------	--------	------	-------

Bypass Data, Name - None

IDay	Data	OrInflow	Destination
------	------	----------	-------------

Ramp\_Rate Data, Name - None

IDay	UpRampDay	UpRampHour	DownRampDay	DownRampHour	Type
------	-----------	------------	-------------	--------------	------

Peak\_Inside

Withdrawal Data, Name - None

Withdrawal	Return
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Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations

Unit_No	Head_Loss_ID	Generator_Per	Turbine_Perf_	Gate_Leakage
---------	--------------	---------------	---------------	--------------

**IPC Proprietary Data**

Head Loss Data, ID = 11, Name = Current Operations

Unit_No	Unit_HL	Common_HL	Use_Com2	Max_Unit
---------	---------	-----------	----------	----------

**IPC Proprietary Data**

Turbine Performance, ID = 40, Name = Current Operations

Head	Flow	Eff
------	------	-----

**IPC Proprietary Data**

Generator Performance Data, ID = 9, Name = Current Operations

gOutput	Eff	Cap
---------	-----	-----

**IPC Proprietary Data**

Maintenance Data, Name - None

IDay	Unit
------	------

Min\_Unit Data, Name - None

Head  
GeneratorEff

Flow  
OpStyle

Eff

CenterLine

Headloss

Complete Scenario Data for Scenario—OP-1\_Scenario5\_high written out on 11/03/2004 10:58:23 AM

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Complete Scenario Data for Scenario - OP-1\_Scenario5\_high  
 Written out on 11/03/2004 10:58:23 AM

System Misc. Name - Run of River

Load_Shape_ID	CarryOver	MaxPeak	ForecastDays	ForecastAcr
Fall_Chinook_	Flood_Control	Max_Discharge		
6	False	False	1	1
0	0			0

Load\_Shape Data, Name - FP00 SP at HL pricing

IMonth	Period	Duration	Price
1	1	6	
1	2	0	
1	3	6	
1	4	5	
1	5	5	
1	6	0	
1	7	2	
1	8	7	
1	9	6	
1	10	4	
1	11	5	
1	12	2	
2	1	6	
2	2	0	
2	3	6	
2	4	5	
2	5	5	
2	6	0	
2	7	2	
2	8	7	
2	9	6	
2	10	4	
2	11	5	
2	12	2	
3	1	6	
3	2	0	
3	3	6	
3	4	5	
3	5	5	
3	6	0	
3	7	2	
3	8	7	
3	9	6	
3	10	4	
3	11	5	
3	12	2	
4	1	6	
4	2	0	
4	3	8	
4	4	0	
4	5	8	
4	6	0	
4	7	2	

4	8	7
4	9	8
4	10	0
4	11	7
4	12	2
5	1	6
5	2	0
5	3	8
5	4	0
5	5	8
5	6	0
5	7	2
5	8	7
5	9	8
5	10	0
5	11	7
5	12	2
6	1	6
6	2	0
6	3	8
6	4	0
6	5	8
6	6	0
6	7	2
6	8	7
6	9	8
6	10	0
6	11	7
6	12	2
7	1	6
7	2	0
7	3	16
7	4	0
7	5	0
7	6	0
7	7	2
7	8	8
7	9	14
7	10	0
7	11	0
7	12	2
8	1	6
8	2	0
8	3	16
8	4	0
8	5	0
8	6	0
8	7	2
8	8	8
8	9	14
8	10	0
8	11	0
8	12	2
9	1	6
9	2	0
9	3	16
9	4	0

9	5	0
9	6	0
9	7	2
9	8	8
9	9	14
9	10	0
9	11	0
9	12	2
10	1	6
10	2	0
10	3	6
10	4	4
10	5	6
10	6	0
10	7	2
10	8	7
10	9	6
10	10	4
10	11	5
10	12	2
11	1	6
11	2	0
11	3	6
11	4	4
11	5	6
11	6	0
11	7	2
11	8	7
11	9	6
11	10	4
11	11	5
11	12	2
12	1	6
12	2	0
12	3	6
12	4	4
12	5	6
12	6	0
12	7	2
12	8	7
12	9	6
12	10	4
12	11	5
12	12	2

Fall\_Chinook Data, Name - None

Draw_Start	Refill_Start	Refill_End	Max_Discharge	Minimum_Max
Maximum_Max	Target_Elevat	Refill_Elevat	Allow_Peak	

Flood\_Control Data, Name - None

IDay	Dalles_Foreca	Brownlee_Fore	Req_Volume
------	---------------	---------------	------------

Max\_Discharge Data, Name - None

IDay	Flow
------	------

Scenario Information for Brownlee

Physical Setting Conditions, Name - run of river min pool

Res\_Storage Data, Name - Current Operations

Elevation        Storage

1785	0
1795	65
1805	329
1815	1516
1825	4536
1835	9262
1845	15774
1855	24588
1865	36095
1875	50512
1885	68017
1895	89040
1905	113558
1915	141587
1925	173437
1935	208704
1945	247870
1955	290872
1965	338435
1975	392386
1980	422227
1985	453896
1990	487337
1995	522472
2000	559131
2005	597495
2010	637456
2015	678918
2020	721987
2025	766744
2030	813073
2031	822529
2032	832048
2033	841633
2034	851284
2035	861002
2036	870786
2037	880637
2038	890554
2039	900534
2040	910575
2041	920678
2042	930847
2043	941087

2044	951403
2045	961806
2046	972303
2047	982896
2048	993581
2049	1004354
2050	1015216
2051	1026170
2052	1037224
2053	1048381
2054	1059641
2055	1071001
2056	1082463
2057	1094035
2058	1105726
2059	1117548
2060	1129509
2061	1141629
2062	1153922
2063	1166375
2064	1178977
2065	1191723
2066	1204615
2067	1217646
2068	1230821
2069	1244150
2070	1257637
2071	1271285
2072	1285068
2073	1298968
2074	1312980
2075	1327087
2076	1341287
2077	1355578
2085	1547000

Tailwater Data, Name - Current Operations  
Flow                      Elevation

500	0.32
1000	0.38
2000	0.51
3000	0.63
4000	0.75
5000	0.87
6000	1
7000	1.11
8000	1.23
9000	1.35
10000	1.47
11000	1.59
12000	1.7
13000	1.82
14000	1.93
15000	2.05
20000	2.61
25000	3.15

30000	3.67
35000	4.18
40000	4.66
45000	5.13
50000	5.58
55000	6
60000	6.42
65000	6.81
70000	7.18
75000	7.54
80000	7.87
85000	8.19
90000	8.49
95000	8.77
100000	9.03

Ramp\_Curve Data, Name - None  
Flow                    Elevation

Outlet1 Data, Name - None  
Elevation            Flow

Outlet2 Data, Name - min pool  
Elevation            Flow

1976	171300
2077	171300

Outlet3 Data, Name - Brownlee Gates  
Elevation            Flow

1976	51500
1990	69000
2010	87500
2027	100500
2050	116000
2079	132500

Plant\_Options Data, Name - Run of River

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	5	2

Operating Setting Conditions, Name - run of river min pool

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - target1976

IDay	Elevation	HardTarget
------	-----------	------------

1	1976	0
365	1976	0

Flood\_Elev Data, Name - H1976 AWG1

IDay	Elevation
------	-----------

1	1976
365	1976

Min\_Elev Data, Name - H1976 all year

IDay	Elevation
------	-----------

1	1976
365	1976

Level\_Fluct Data, Name - LF0 all year

IDay	Weekday	Weekend	Hard	Spill
------	---------	---------	------	-------

1	0	0	True	False
365	0	0	True	False

Level\_Rate Data, Name - None

IDay	Rate
------	------

Flashboard Data, Name - None

Elevation	Volume	Trip	Reset
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Bypass Data, Name - None

IDay	Data	OrInflow	Destination
------	------	----------	-------------

Ramp\_Rate Data, Name - None

IDay	UpRampDay	UpRampHour	DownRampDay	DownRampHour	Type
Peak_Inside					

Withdrawal Data, Name - None

Withdrawal	Return
------------	--------

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations

Unit_No	Head_Loss_ID	Generator_Per	Turbine_Perf_	Gate_Leakage
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**IPC Proprietary Data**

Head Loss Data, ID = 6, Name = Current Operations

Unit_No	Unit_HL	Common_HL	Use_Com2	Max_Unit
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**IPC Proprietary Data**

Turbine Performance, ID = 34, Name = Current Operations

Head	Flow	Eff
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**IPC Proprietary Data**

Turbine Performance, ID = 47, Name = Unit 5 n  
Head                      Flow                      Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 5, Name = Unit 5 Current Ops  
gOutput                      Eff                      Cap

**IPC Proprietary Data**

Generator Performance Data, ID = 6, Name = Units 1 - 4 Current Ops  
gOutput                      Eff                      Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay                      Unit

Min\_Unit Data, Name - None  
Head                      Flow                      Eff                      CenterLine                      Headloss  
GeneratorEff                      OpStyle

Scenario Information for Oxbow

Physical Setting Conditions, Name - Run of River

Res\_Storage Data, Name - Current Operations

Elevation                      Storage

1710	0
1722	1500
1736	5000
1748	10000
1764	20000
1768	22500
1772	25800
1780	32400
1800	52500
1805	57920
1810	64168

Tailwater Data, Name - Current Operations

Flow                      Elevation

1	1490
---	------

Ramp\_Curve Data, Name - None



Flow                    Elevation

Outlet1 Data, Name - None  
Elevation            Flow

Outlet2 Data, Name - Current Operations  
Elevation            Flow

1755	0
1765	25000
1773	50000
1778	55000
1783	100000
1787	125000
1792	150000
1795	175000
1798	200000
1802	225000
1805	250000
1808	275000
1811	300000

Outlet3 Data, Name - None  
Elevation            Flow

Plant_Options Data, Name - Run of River				
Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	5	2

Operating Setting Conditions, Name - Run of River

Minimum Data, Name - None			
IDay	Data	OrInflow	Dependent

Base Data, Name - None			
IDay	Data	OrInflow	Dependent

Target_Elev Data, Name - H1805		
IDay	Elevation	HardTarget
1	1805	0
365	1805	0

Flood_Elev Data, Name - Current Operations	
IDay	Elevation

1	1805
365	1805

Min_Elev Data, Name - H1795 all year	
IDay	Elevation

1 1795  
365 1795

Level\_Fluct Data, Name - LF0 all year

IDay Weekday Weekend Hard Spill

1 0 0 True False  
365 0 0 True False

Level\_Rate Data, Name - None

IDay Rate

Flashboard Data, Name - None

Elevation Volume Trip Reset

Bypass Data, Name - Q100 all year

IDay Data OrInflow Destination

1 100 False 3  
365 100 False 3

Ramp\_Rate Data, Name - None

IDay UpRampDay UpRampHour DownRampDay DownRampHour Type  
Peak\_Inside

Withdrawal Data, Name - None

Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations

Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 8, Name = Current Operations

Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 37, Name = Current Operations

Head Flow Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 7, Name = Current Operations

gOutput Eff Cap

**IPC Proprietary Data**

Maintenance Data, Name - None

IDay Unit

Min\_Unit Data, Name - None

Head	Flow	Eff	CenterLine	Headloss
------	------	-----	------------	----------

GeneratorEff	OpStyle
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Scenario Information for Hells Canyon

Physical Setting Conditions, Name - Run of River

Res\_Storage Data, Name - CEQUAL RS Curve

Elevation	Storage
-----------	---------

1674.9	152701
1676.5	156419
1679.8	163855
1683.1	171642
1686.4	179429
1689.6	187475
1692.9	195521

Tailwater Data, Name - Current Operations

Flow	Elevation
------	-----------

6000	1467.98
7000	1468.91
8000	1469.68
9000	1470.34
12000	1471.91
14000	1472.77
18000	1474.1
20000	1474.89
24000	1476.1
28000	1477.21
30000	1477.74
35000	1478.98
40000	1480.14
44000	1481.01
48000	1481.84
54000	1483.01
60000	1484.09
65000	1484.92
72500	1486.06
75000	1486.41
80000	1487.08
85000	1487.68
90000	1488.24
95000	1488.73
100000	1489.18
105000	1489.57

Ramp\_Curve Data, Name - None  
Flow            Elevation

Outlet1 Data, Name - None  
Elevation      Flow

Outlet2 Data, Name - Current Operations  
Elevation      Flow

1600	0
1668	168000
1673	195000
1678	226000
1683	255000
1688	284000
1691	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant_Options Data, Name - Run of River				
Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	5	2

Operating Setting Conditions, Name - Run of River

Minimum Data, Name - None			
IDay	Data	OrInflow	Dependent

1			
365			

Target_Elev Data, Name - H1688		
IDay	Elevation	HardTarget
1	1688	0
365	1688	0

Flood_Elev Data, Name - Current Operations	
IDay	Elevation
1	1688
365	1688

Min_Elev Data, Name - H1678 all year	
IDay	Elevation
1	1678
365	1678

Level\_Fluct Data, Name - LF0 all year

IDay	Weekday	Weekend	Hard	Spill
1	0	0	True	False
365	0	0	True	False

Level\_Rate Data, Name - None  
IDay            Rate

Flashboard Data, Name - None  
Elevation      Volume            Trip            Reset

Bypass Data, Name - None  
IDay            Data                    OrInflow        Destination

Ramp\_Rate Data, Name - None  
IDay            UpRampDay            UpRampHour      DownRampDay      DownRampHour      Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal      Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No            Head\_Loss\_ID      Generator\_Per      Turbine\_Perf\_      Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 11, Name = Current Operations  
Unit\_No            Unit\_HL            Common\_HL        Use\_Com2            Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 40, Name = Current Operations  
Head            Flow            Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 9, Name = Current Operations  
gOutput            Eff            Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay            Unit

Min\_Unit Data, Name - None  
Head            Flow            Eff            CenterLine        Headloss  
GeneratorEff    OpStyle



Complete Scenario Data for Scenario—OP-1\_Scenario6\_92 written out on 11/03/2004 10:59:03 AM

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Complete Scenario Data for Scenario - OP-1\_Scenario6\_92  
 Written out on 11/03/2004 10:59:03 AM

System Misc. Name - OP-1\_Scenario6\_lo

Load_Shape_ID	CarryOver	MaxPeak	ForecastDays	ForecastAcr
8	False	False	3	1
0	5			0

Load\_Shape Data, Name - FP01 SP HL pricing

IMonth	Period	Duration	Price
1	1	6	
1	2	0	
1	3	6	
1	4	5	
1	5	5	
1	6	0	
1	7	2	
1	8	7	
1	9	6	
1	10	4	
1	11	5	
1	12	2	
2	1	6	
2	2	0	
2	3	6	
2	4	5	
2	5	5	
2	6	0	
2	7	2	
2	8	7	
2	9	6	
2	10	4	
2	11	5	
2	12	2	
3	1	6	
3	2	0	
3	3	6	
3	4	5	
3	5	5	
3	6	0	
3	7	2	
3	8	7	
3	9	6	
3	10	4	
3	11	5	
3	12	2	
4	1	6	
4	2	0	
4	3	8	
4	4	0	
4	5	8	
4	6	0	
4	7	2	

4	8	7
4	9	8
4	10	0
4	11	7
4	12	2
5	1	6
5	2	0
5	3	8
5	4	0
5	5	8
5	6	0
5	7	2
5	8	7
5	9	8
5	10	0
5	11	7
5	12	2
6	1	6
6	2	0
6	3	8
6	4	0
6	5	8
6	6	0
6	7	2
6	8	7
6	9	8
6	10	0
6	11	7
6	12	2
7	1	6
7	2	0
7	3	16
7	4	0
7	5	0
7	6	0
7	7	2
7	8	8
7	9	14
7	10	0
7	11	0
7	12	2
8	1	6
8	2	0
8	3	16
8	4	0
8	5	0
8	6	0
8	7	2
8	8	8
8	9	14
8	10	0
8	11	0
8	12	2
9	1	6
9	2	0
9	3	16
9	4	0

9	5	0
9	6	0
9	7	2
9	8	8
9	9	14
9	10	0
9	11	0
9	12	2
10	1	6
10	2	0
10	3	6
10	4	4
10	5	6
10	6	0
10	7	2
10	8	7
10	9	6
10	10	4
10	11	5
10	12	2
11	1	6
11	2	0
11	3	6
11	4	4
11	5	6
11	6	0
11	7	2
11	8	7
11	9	6
11	10	4
11	11	5
11	12	2
12	1	6
12	2	0
12	3	6
12	4	4
12	5	6
12	6	0
12	7	2
12	8	7
12	9	6
12	10	4
12	11	5
12	12	2

Fall\_Chinook Data, Name - None

Draw_Start	Refill_Start	Refill_End	Max_Discharge	Minimum_Max
Maximum_Max	Target_Elevat	Refill_Elevat	Allow_Peak	

Flood\_Control Data, Name - None

IDay	Dalles_Foreca	Brownlee_Fore	Req_Volume
------	---------------	---------------	------------

Max\_Discharge Data, Name - OP-1\_Scenario6\_ave\_lo

IDay	Flow
------	------

1	1000000
30	1000000
250	1000000
294	8500
345	8500
346	1000000
365	1000000

Scenario Information for Brownlee

Physical Setting Conditions, Name - Current Ops 97b

Res\_Storage Data, Name - CEQUAL97b

Elevation	Storage
1973.2	432247
1979.8	475263
1983.2	498341
1986.5	521420
1989.8	546048
1993.1	570676
1996.5	596713
1999.8	622750
2003.1	650212
2006.5	677675
2009.8	706573
2013.1	735471
2016.5	765566
2019.8	795660
2023.1	827202
2029.8	891862
2033.1	924980
2036.4	959727
2039.8	994474
2043.1	1030689
2046.4	1066905
2049.8	1104803
2053.1	1142701
2056.4	1182254
2059.7	1221807
2063.1	1263344
2066.4	1304880
2069.7	1348494
2073.06	1392108
2076.4	1437212
2079.7	1482317

Tailwater Data, Name - Current Operations

Flow	Elevation
500	0.32
1000	0.38

2000	0.51
3000	0.63
4000	0.75
5000	0.87
6000	1
7000	1.11
8000	1.23
9000	1.35
10000	1.47
11000	1.59
12000	1.7
13000	1.82
14000	1.93
15000	2.05
20000	2.61
25000	3.15
30000	3.67
35000	4.18
40000	4.66
45000	5.13
50000	5.58
55000	6
60000	6.42
65000	6.81
70000	7.18
75000	7.54
80000	7.87
85000	8.19
90000	8.49
95000	8.77
100000	9.03

Ramp\_Curve Data, Name - None  
Flow                    Elevation

Outlet1 Data, Name - None  
Elevation            Flow

Outlet2 Data, Name - Current Operations  
Elevation            Flow

2027	0
2033	5250
2037	12500
2044	27750
2050	46000
2077	171300

Outlet3 Data, Name - Brownlee Gates  
Elevation            Flow

1976	51500
1990	69000
2010	87500
2027	100500

2050 116000  
2079 132500

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - OP-1\_Scenario6\_92

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - OP-1\_Scenario6\_ave\_lo

IDay	Data	OrInflow	Dependent
1	8500	False	False
152	8500	False	False
153	6500	True	False
293	6500	True	False
294	8500	False	False
345	8500	False	False
346	8500	False	False
365	8500	False	False

Target\_Elev Data, Name - OP-1\_Scenario6\_92

IDay	Elevation	HardTarget
1	2033.6	0
2	2076	0
158	2076	0
182	2076	0
274	1976	1
294	1976	1
345	2076	0
365	2076	0

Flood\_Elev Data, Name - H2077 all year

IDay	Elevation
1	2077
365	2077

Min\_Elev Data, Name - H1976 all year

IDay	Elevation
1	1976
365	1976

Level\_Fluct Data, Name - LF3 all yr

IDay	Weekday	Weekend	Hard	Spill
1	3	3	False	False
244	3	3	False	False
365	3	3	False	False

Level\_Rate Data, Name - None  
IDay            Rate

Flashboard Data, Name - None  
Elevation      Volume            Trip            Reset

Bypass Data, Name - None  
IDay            Data              OrInflow       Destination

Ramp\_Rate Data, Name - None  
IDay            UpRampDay        UpRampHour     DownRampDay    DownRampHour    Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal      Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No        Head\_Loss\_ID     Generator\_Per    Turbine\_Perf\_    Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 6, Name = Current Operations  
Unit\_No        Unit\_HL            Common\_HL        Use\_Com2        Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 34, Name = Current Operations  
Head            Flow              Eff

**IPC Proprietary Data**

Turbine Performance, ID = 47, Name = Unit 5 n  
Head            Flow              Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 5, Name = Unit 5 Current Ops  
gOutput        Eff                Cap

**IPC Proprietary Data**

Generator Performance Data, ID = 6, Name = Units 1 - 4 Current Ops  
gOutput        Eff                Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay            Unit

Min_Unit Data, Name - None				
Head	Flow	Eff	CenterLine	Headloss
GeneratorEff	OpStyle			

Scenario Information for Oxbow

Physical Setting Conditions, Name - Current Operations

Res\_Storage Data, Name - CEQUAL RS Curve

Elevation	Storage
1786.42	38536.44
1789.7	41746
1792.98	44954.86
1796.3	48465
1799.54	51975.63
1802.8	55731
1806.1	59487

Tailwater Data, Name - Current Operations

Flow	Elevation
1	1490

Ramp\_Curve Data, Name - None

Flow	Elevation
------	-----------

Outlet1 Data, Name - None

Elevation	Flow
-----------	------

Outlet2 Data, Name - Current Operations

Elevation	Flow
1755	0
1765	25000
1773	50000
1778	55000
1783	100000
1787	125000
1792	150000
1795	175000
1798	200000
1802	225000
1805	250000
1808	275000
1811	300000

Outlet3 Data, Name - None

Elevation	Flow
-----------	------



Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1803

IDay	Elevation	HardTarget
------	-----------	------------

1	1803	0
365	1803	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
------	-----------

1	1805
365	1805

Min\_Elev Data, Name - H1795 all year

IDay	Elevation
------	-----------

1	1795
365	1795

Level\_Fluct Data, Name - LF5 all year

IDay	Weekday	Weekend	Hard	Spill
1	5	5	True	False
365	5	5	True	False

Level\_Rate Data, Name - None

IDay	Rate
------	------

Flashboard Data, Name - None

Elevation	Volume	Trip	Reset
-----------	--------	------	-------

Bypass Data, Name - Q100 all year

IDay	Data	OrInflow	Destination
1	100	False	3
365	100	False	3

Ramp\_Rate Data, Name - None

IDay            UpRampDay            UpRampHour            DownRampDay            DownRampHour            Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal            Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No            Head\_Loss\_ID            Generator\_Per            Turbine\_Perf\_            Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 8, Name = Current Operations  
Unit\_No            Unit\_HL            Common\_HL            Use\_Com2            Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 37, Name = Current Operations  
Head            Flow            Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 7, Name = Current Operations  
gOutput            Eff            Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay            Unit

Min\_Unit Data, Name - None  
Head            Flow            Eff            CenterLine            Headloss  
GeneratorEff    OpStyle

Scenario Information for Hells Canyon

Physical Setting Conditions, Name - Current Operation

Res\_Storage Data, Name - CEQUAL RS Curve  
Elevation            Storage

1674.9	152701
1676.5	156419
1679.8	163855
1683.1	171642
1686.4	179429
1689.6	187475

1692.9            195521

Tailwater Data, Name - Current Operations

Flow                Elevation

6000	1467.98
7000	1468.91
8000	1469.68
9000	1470.34
12000	1471.91
14000	1472.77
18000	1474.1
20000	1474.89
24000	1476.1
28000	1477.21
30000	1477.74
35000	1478.98
40000	1480.14
44000	1481.01
48000	1481.84
54000	1483.01
60000	1484.09
65000	1484.92
72500	1486.06
75000	1486.41
80000	1487.08
85000	1487.68
90000	1488.24
95000	1488.73
100000	1489.18
105000	1489.57

Ramp\_Curve Data, Name - Johnson Bar rating curve

Flow                Elevation

0	2.2
3600	3
4570	3.5
5650	4
6899	4.5
8300	5
9797	5.5
11427	6
13173	6.5
14975	7
16876	7.5
18822	8
20810	8.5
22837	9
24901	9.5
27000	10
29066	10.5
31159	11
33277	11.5
35420	12
39770	13
41982	13.5

44213	14
48734	15
51023	15.5
53331	16
58000	17
60500	17.5

Outlet1 Data, Name - None  
Elevation      Flow

Outlet2 Data, Name - Current Operations  
Elevation      Flow

1600	0
1668	168000
1673	195000
1678	226000
1683	255000
1688	284000
1691	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	2	2

Operating Setting Conditions, Name - OP-1\_Scenario6\_average

Minimum Data, Name - OP-1\_Scenario6\_ave\_lo

IDay	Data	OrInflow	Dependent
1	8500	False	False
152	8500	False	False
153	6500	True	False
293	6500	True	False
294	8500	False	False
345	8500	False	False
346	8500	False	False
365	8500	False	False

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1687

IDay	Elevation	HardTarget
1	1687	0
365	1687	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
------	-----------

1 1688  
365 1688

Min\_Elev Data, Name - 1683 all year  
IDay Elevation

1 1683  
365 1683

Level\_Fluct Data, Name - LF5 all year  
IDay Weekday Weekend

1 5 5 Hard Spill  
365 5 5 False False

Level\_Rate Data, Name - None  
IDay Rate

Flashboard Data, Name - None  
Elevation Volume Trip Reset

Bypass Data, Name - None  
IDay Data OrInflow Destination

Ramp\_Rate Data, Name - OP-1\_Scenario6  
IDay UpRampDay UpRampHour

Peak_Inside	DownRampDay	DownRampHour	Type
1	10	1	Stage
False			
90	10	1	Stage
False			
91	2.9	1	Stage
False			
273	2.9	1	Stage
False			
274	10	1	Stage
False			
293	10	1	Stage
False			
294	0.0000001	0.0000001	Stage
False			
345	0.0000001	0.0000001	Stage
False			
346	10	1	Stage
False			
365	10	1	Stage
False			

Withdrawal Data, Name - None  
Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations

Unit\_No            Head\_Loss\_ID    Generator\_Per    Turbine\_Perf\_    Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 11, Name = Current Operations

Unit\_No            Unit\_HL            Common\_HL            Use\_Com2            Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 40, Name = Current Operations

Head                Flow                Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 9, Name = Current Operations

gOutput            Eff                Cap

**IPC Proprietary Data**

Maintenance Data, Name - None

IDay                Unit

Min\_Unit Data, Name - None

Head                Flow                Eff                CenterLine            Headloss  
GeneratorEff    OpStyle

Complete Scenario Data for Scenario—OP-1\_Scenario6\_94 written out on 11/03/2004 11:01:55 AM

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Complete Scenario Data for Scenario - OP-1\_Scenario6\_94  
 Written out on 11/03/2004 11:01:55 AM

System Misc. Name - OP-1\_Scenario6\_lo

Load_Shape_ID	CarryOver	MaxPeak	ForecastDays	ForecastAcr
8	False	False	3	1
0	5			0

Load\_Shape Data, Name - FP01 SP HL pricing

IMonth	Period	Duration	Price
1	1	6	
1	2	0	
1	3	6	
1	4	5	
1	5	5	
1	6	0	
1	7	2	
1	8	7	
1	9	6	
1	10	4	
1	11	5	
1	12	2	
2	1	6	
2	2	0	
2	3	6	
2	4	5	
2	5	5	
2	6	0	
2	7	2	
2	8	7	
2	9	6	
2	10	4	
2	11	5	
2	12	2	
3	1	6	
3	2	0	
3	3	6	
3	4	5	
3	5	5	
3	6	0	
3	7	2	
3	8	7	
3	9	6	
3	10	4	
3	11	5	
3	12	2	
4	1	6	
4	2	0	
4	3	8	
4	4	0	
4	5	8	
4	6	0	
4	7	2	

4	8	7
4	9	8
4	10	0
4	11	7
4	12	2
5	1	6
5	2	0
5	3	8
5	4	0
5	5	8
5	6	0
5	7	2
5	8	7
5	9	8
5	10	0
5	11	7
5	12	2
6	1	6
6	2	0
6	3	8
6	4	0
6	5	8
6	6	0
6	7	2
6	8	7
6	9	8
6	10	0
6	11	7
6	12	2
7	1	6
7	2	0
7	3	16
7	4	0
7	5	0
7	6	0
7	7	2
7	8	8
7	9	14
7	10	0
7	11	0
7	12	2
8	1	6
8	2	0
8	3	16
8	4	0
8	5	0
8	6	0
8	7	2
8	8	8
8	9	14
8	10	0
8	11	0
8	12	2
9	1	6
9	2	0
9	3	16
9	4	0

9	5	0
9	6	0
9	7	2
9	8	8
9	9	14
9	10	0
9	11	0
9	12	2
10	1	6
10	2	0
10	3	6
10	4	4
10	5	6
10	6	0
10	7	2
10	8	7
10	9	6
10	10	4
10	11	5
10	12	2
11	1	6
11	2	0
11	3	6
11	4	4
11	5	6
11	6	0
11	7	2
11	8	7
11	9	6
11	10	4
11	11	5
11	12	2
12	1	6
12	2	0
12	3	6
12	4	4
12	5	6
12	6	0
12	7	2
12	8	7
12	9	6
12	10	4
12	11	5
12	12	2

Fall\_Chinook Data, Name - None

Draw_Start	Refill_Start	Refill_End	Max_Discharge	Minimum_Max
Maximum_Max	Target_Elevat	Refill_Elevat	Allow_Peak	

Flood\_Control Data, Name - None

IDay	Dalles_Foreca	Brownlee_Fore	Req_Volume
------	---------------	---------------	------------

Max\_Discharge Data, Name - OP-1\_Scenario6\_ave\_lo

IDay	Flow
------	------

1	1000000
30	1000000
250	1000000
294	8500
345	8500
346	1000000
365	1000000

Scenario Information for Brownlee

Physical Setting Conditions, Name - Current Ops 97b

Res\_Storage Data, Name - CEQUAL97b

Elevation	Storage
1973.2	432247
1979.8	475263
1983.2	498341
1986.5	521420
1989.8	546048
1993.1	570676
1996.5	596713
1999.8	622750
2003.1	650212
2006.5	677675
2009.8	706573
2013.1	735471
2016.5	765566
2019.8	795660
2023.1	827202
2029.8	891862
2033.1	924980
2036.4	959727
2039.8	994474
2043.1	1030689
2046.4	1066905
2049.8	1104803
2053.1	1142701
2056.4	1182254
2059.7	1221807
2063.1	1263344
2066.4	1304880
2069.7	1348494
2073.06	1392108
2076.4	1437212
2079.7	1482317

Tailwater Data, Name - Current Operations

Flow	Elevation
500	0.32
1000	0.38

2000	0.51
3000	0.63
4000	0.75
5000	0.87
6000	1
7000	1.11
8000	1.23
9000	1.35
10000	1.47
11000	1.59
12000	1.7
13000	1.82
14000	1.93
15000	2.05
20000	2.61
25000	3.15
30000	3.67
35000	4.18
40000	4.66
45000	5.13
50000	5.58
55000	6
60000	6.42
65000	6.81
70000	7.18
75000	7.54
80000	7.87
85000	8.19
90000	8.49
95000	8.77
100000	9.03

Ramp\_Curve Data, Name - None  
Flow            Elevation

Outlet1 Data, Name - None  
Elevation      Flow

Outlet2 Data, Name - Current Operations  
Elevation      Flow

2027	0
2033	5250
2037	12500
2044	27750
2050	46000
2077	171300

Outlet3 Data, Name - Brownlee Gates  
Elevation      Flow

1976	51500
1990	69000
2010	87500
2027	100500

2050 116000  
2079 132500

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - OP-1\_Scenario6\_94

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - OP-1\_Scenario6\_ave\_lo

IDay	Data	OrInflow	Dependent
1	8500	False	False
152	8500	False	False
153	6500	True	False
293	6500	True	False
294	8500	False	False
345	8500	False	False
346	8500	False	False
365	8500	False	False

Target\_Elev Data, Name - OP-1\_Scenario6\_94

IDay	Elevation	HardTarget
1	2012	0
2	2076	0
158	2076	0
182	2076	0
274	1976	1
294	1976	0
345	2076	0
365	2076	0

Flood\_Elev Data, Name - H2077 all year

IDay	Elevation
1	2077
365	2077

Min\_Elev Data, Name - H1976 all year

IDay	Elevation
1	1976
365	1976

Level\_Fluct Data, Name - LF3 all yr

IDay	Weekday	Weekend	Hard	Spill
1	3	3	False	False
244	3	3	False	False
365	3	3	False	False

Level\_Rate Data, Name - None  
IDay            Rate

Flashboard Data, Name - None  
Elevation      Volume            Trip            Reset

Bypass Data, Name - None  
IDay            Data              OrInflow       Destination

Ramp\_Rate Data, Name - None  
IDay            UpRampDay        UpRampHour     DownRampDay     DownRampHour    Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal      Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No        Head\_Loss\_ID     Generator\_Per    Turbine\_Perf\_    Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 6, Name = Current Operations  
Unit\_No        Unit\_HL            Common\_HL        Use\_Com2            Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 34, Name = Current Operations  
Head            Flow              Eff

**IPC Proprietary Data**

Turbine Performance, ID = 47, Name = Unit 5 n  
Head            Flow              Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 5, Name = Unit 5 Current Ops  
gOutput        Eff                Cap

**IPC Proprietary Data**

Generator Performance Data, ID = 6, Name = Units 1 - 4 Current Ops  
gOutput        Eff                Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay            Unit

Min_Unit Data, Name - None				
Head	Flow	Eff	CenterLine	Headloss
GeneratorEff	OpStyle			

Scenario Information for Oxbow

Physical Setting Conditions, Name - Current Operations

Res\_Storage Data, Name - CEQUAL RS Curve

Elevation	Storage
1786.42	38536.44
1789.7	41746
1792.98	44954.86
1796.3	48465
1799.54	51975.63
1802.8	55731
1806.1	59487

Tailwater Data, Name - Current Operations

Flow	Elevation
1	1490

Ramp\_Curve Data, Name - None

Flow	Elevation
------	-----------

Outlet1 Data, Name - None

Elevation	Flow
-----------	------

Outlet2 Data, Name - Current Operations

Elevation	Flow
1755	0
1765	25000
1773	50000
1778	55000
1783	100000
1787	125000
1792	150000
1795	175000
1798	200000
1802	225000
1805	250000
1808	275000
1811	300000

Outlet3 Data, Name - None

Elevation	Flow
-----------	------



Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1803

IDay	Elevation	HardTarget
------	-----------	------------

1	1803	0
365	1803	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
------	-----------

1	1805
365	1805

Min\_Elev Data, Name - H1795 all year

IDay	Elevation
------	-----------

1	1795
365	1795

Level\_Fluct Data, Name - LF5 all year

IDay	Weekday	Weekend	Hard	Spill
1	5	5	True	False
365	5	5	True	False

Level\_Rate Data, Name - None

IDay	Rate
------	------

Flashboard Data, Name - None

Elevation	Volume	Trip	Reset
-----------	--------	------	-------

Bypass Data, Name - Q100 all year

IDay	Data	OrInflow	Destination
1	100	False	3
365	100	False	3

Ramp\_Rate Data, Name - None

IDay            UpRampDay            UpRampHour            DownRampDay            DownRampHour            Type  
Peak\_Inside

Withdrawal Data, Name - None  
Withdrawal            Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
Unit\_No            Head\_Loss\_ID            Generator\_Per            Turbine\_Perf\_            Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 8, Name = Current Operations  
Unit\_No            Unit\_HL            Common\_HL            Use\_Com2            Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 37, Name = Current Operations  
Head            Flow            Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 7, Name = Current Operations  
gOutput            Eff            Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay            Unit

Min\_Unit Data, Name - None  
Head            Flow            Eff            CenterLine            Headloss  
GeneratorEff    OpStyle

Scenario Information for Hells Canyon

Physical Setting Conditions, Name - Current Operation

Res\_Storage Data, Name - CEQUAL RS Curve  
Elevation            Storage

1674.9	152701
1676.5	156419
1679.8	163855
1683.1	171642
1686.4	179429
1689.6	187475

1692.9            195521

Tailwater Data, Name - Current Operations

Flow            Elevation

6000	1467.98
7000	1468.91
8000	1469.68
9000	1470.34
12000	1471.91
14000	1472.77
18000	1474.1
20000	1474.89
24000	1476.1
28000	1477.21
30000	1477.74
35000	1478.98
40000	1480.14
44000	1481.01
48000	1481.84
54000	1483.01
60000	1484.09
65000	1484.92
72500	1486.06
75000	1486.41
80000	1487.08
85000	1487.68
90000	1488.24
95000	1488.73
100000	1489.18
105000	1489.57

Ramp\_Curve Data, Name - Johnson Bar rating curve

Flow            Elevation

0	2.2
3600	3
4570	3.5
5650	4
6899	4.5
8300	5
9797	5.5
11427	6
13173	6.5
14975	7
16876	7.5
18822	8
20810	8.5
22837	9
24901	9.5
27000	10
29066	10.5
31159	11
33277	11.5
35420	12
39770	13
41982	13.5

44213	14
48734	15
51023	15.5
53331	16
58000	17
60500	17.5

Outlet1 Data, Name - None  
Elevation      Flow

Outlet2 Data, Name - Current Operations  
Elevation      Flow

1600	0
1668	168000
1673	195000
1678	226000
1683	255000
1688	284000
1691	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	2	2

Operating Setting Conditions, Name - OP-1\_Scenario6\_average

Minimum Data, Name - OP-1\_Scenario6\_ave\_lo

IDay	Data	OrInflow	Dependent
1	8500	False	False
152	8500	False	False
153	6500	True	False
293	6500	True	False
294	8500	False	False
345	8500	False	False
346	8500	False	False
365	8500	False	False

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1687

IDay	Elevation	HardTarget
1	1687	0
365	1687	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
------	-----------

1 1688  
365 1688

Min\_Elev Data, Name - 1683 all year  
IDay Elevation

1 1683  
365 1683

Level\_Fluct Data, Name - LF5 all year  
IDay Weekday Weekend

1 5 5 Hard Spill  
365 5 5 False False

Level\_Rate Data, Name - None  
IDay Rate

Flashboard Data, Name - None  
Elevation Volume Trip Reset

Bypass Data, Name - None  
IDay Data OrInflow Destination

Ramp\_Rate Data, Name - OP-1\_Scenario6  
IDay UpRampDay UpRampHour  
Peak\_Inside

IDay	UpRampDay	UpRampHour	DownRampDay	DownRampHour	Type
1	10	1	10	1	Stage
False					
90	10	1	10	1	Stage
False					
91	2.9	1	2.9	1	Stage
False					
273	2.9	1	2.9	1	Stage
False					
274	10	1	10	1	Stage
False					
293	10	1	10	1	Stage
False					
294	0.0000001	0.0000001	0.0000001	0.0000001	Stage
False					
345	0.0000001	0.0000001	0.0000001	0.0000001	Stage
False					
346	10	1	10	1	Stage
False					
365	10	1	10	1	Stage
False					

Withdrawal Data, Name - None  
Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations

Unit\_No            Head\_Loss\_ID    Generator\_Per    Turbine\_Perf\_    Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 11, Name = Current Operations

Unit\_No            Unit\_HL            Common\_HL            Use\_Com2            Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 40, Name = Current Operations

Head                Flow                Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 9, Name = Current Operations

gOutput            Eff                Cap

**IPC Proprietary Data**

Maintenance Data, Name - None

IDay                Unit

Min\_Unit Data, Name - None

Head                Flow                Eff                CenterLine            Headloss  
GeneratorEff    OpStyle

Complete Scenario Data for Scenario—OP-1\_Scenario6\_97 written out on 11/03/2004 11:02:14 AM

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Complete Scenario Data for Scenario - OP-1\_Scenario6\_97  
 Written out on 11/03/2004 11:02:14 AM

System Misc. Name - OP-1\_Scenario6\_97

Load_Shape_ID	CarryOver	MaxPeak	ForecastDays	ForecastAcr
Fall_Chinook_	Flood_Control	Max_Discharge		
8	False	False	3	1
10	6			0

Load\_Shape Data, Name - FP01 SP HL pricing

IMonth	Period	Duration	Price
1	1	6	
1	2	0	
1	3	6	
1	4	5	
1	5	5	
1	6	0	
1	7	2	
1	8	7	
1	9	6	
1	10	4	
1	11	5	
1	12	2	
2	1	6	
2	2	0	
2	3	6	
2	4	5	
2	5	5	
2	6	0	
2	7	2	
2	8	7	
2	9	6	
2	10	4	
2	11	5	
2	12	2	
3	1	6	
3	2	0	
3	3	6	
3	4	5	
3	5	5	
3	6	0	
3	7	2	
3	8	7	
3	9	6	
3	10	4	
3	11	5	
3	12	2	
4	1	6	
4	2	0	
4	3	8	
4	4	0	
4	5	8	
4	6	0	
4	7	2	

4	8	7
4	9	8
4	10	0
4	11	7
4	12	2
5	1	6
5	2	0
5	3	8
5	4	0
5	5	8
5	6	0
5	7	2
5	8	7
5	9	8
5	10	0
5	11	7
5	12	2
6	1	6
6	2	0
6	3	8
6	4	0
6	5	8
6	6	0
6	7	2
6	8	7
6	9	8
6	10	0
6	11	7
6	12	2
7	1	6
7	2	0
7	3	16
7	4	0
7	5	0
7	6	0
7	7	2
7	8	8
7	9	14
7	10	0
7	11	0
7	12	2
8	1	6
8	2	0
8	3	16
8	4	0
8	5	0
8	6	0
8	7	2
8	8	8
8	9	14
8	10	0
8	11	0
8	12	2
9	1	6
9	2	0
9	3	16
9	4	0

9	5	0
9	6	0
9	7	2
9	8	8
9	9	14
9	10	0
9	11	0
9	12	2
10	1	6
10	2	0
10	3	6
10	4	4
10	5	6
10	6	0
10	7	2
10	8	7
10	9	6
10	10	4
10	11	5
10	12	2
11	1	6
11	2	0
11	3	6
11	4	4
11	5	6
11	6	0
11	7	2
11	8	7
11	9	6
11	10	4
11	11	5
11	12	2
12	1	6
12	2	0
12	3	6
12	4	4
12	5	6
12	6	0
12	7	2
12	8	7
12	9	6
12	10	4
12	11	5
12	12	2

Fall\_Chinook Data, Name - None

Draw_Start	Refill_Start	Refill_End	Max_Discharge	Minimum_Max
Maximum_Max	Target_Elevat	Refill_Elevat	Allow_Peak	

Flood\_Control Data, Name - OP-1\_Scenario6

IDay	Dalles_Foreca	Brownlee_Fore	Req_Volume
59	75	3	0
59	75	4	450
59	75	5	600
59	75	6	850

59	85	3	0
59	85	4	450
59	85	5	600
59	85	6	850
59	95	3	0
59	95	4	450
59	95	5	600
59	95	6	850
59	105	3	0
59	105	4	450
59	105	5	600
59	105	6	850
59	115	3	300
59	115	4	450
59	115	5	600
59	115	6	850
90	75	3	0
90	75	4	500
90	75	5	650
90	75	6	980
90	85	3	0
90	85	4	500
90	85	5	650
90	85	6	980
90	95	3	0
90	95	4	500
90	95	5	650
90	95	6	980
90	105	3	0
90	105	4	500
90	105	5	650
90	105	6	980
90	115	3	250
90	115	4	500
90	115	5	650
90	115	6	980
105	75	3	0
105	75	4	550
105	75	5	750
105	75	6	980
105	85	3	0
105	85	4	550
105	85	5	750
105	85	6	980
105	95	3	0
105	95	4	550
105	95	5	750
105	95	6	980
105	105	3	0
105	105	4	550
105	105	5	750
105	105	6	980
105	115	3	200
105	115	4	550
105	115	5	750
105	115	6	980
120	75	3	0

120	75	4	550
120	75	5	750
120	75	6	980
120	85	3	0
120	85	4	550
120	85	5	750
120	85	6	980
120	95	3	0
120	95	4	550
120	95	5	750
120	95	6	980
120	105	3	0
120	105	4	550
120	105	5	750
120	105	6	980
120	115	3	150
120	115	4	550
120	115	5	750
120	115	6	980

Max\_Discharge Data, Name - OP-1\_Scenario6\_97

IDay	Flow
1	1000000
30	1000000
250	1000000
294	13000
345	13000
346	1000000
365	1000000

Scenario Information for Brownlee

Physical Setting Conditions, Name - Current Ops 97b

Res\_Storage Data, Name - CEQUAL97b

Elevation	Storage
1973.2	432247
1979.8	475263
1983.2	498341
1986.5	521420
1989.8	546048
1993.1	570676
1996.5	596713
1999.8	622750
2003.1	650212
2006.5	677675
2009.8	706573
2013.1	735471
2016.5	765566
2019.8	795660

2023.1	827202
2029.8	891862
2033.1	924980
2036.4	959727
2039.8	994474
2043.1	1030689
2046.4	1066905
2049.8	1104803
2053.1	1142701
2056.4	1182254
2059.7	1221807
2063.1	1263344
2066.4	1304880
2069.7	1348494
2073.06	1392108
2076.4	1437212
2079.7	1482317

Tailwater Data, Name - Current Operations

Flow	Elevation
------	-----------

500	0.32
1000	0.38
2000	0.51
3000	0.63
4000	0.75
5000	0.87
6000	1
7000	1.11
8000	1.23
9000	1.35
10000	1.47
11000	1.59
12000	1.7
13000	1.82
14000	1.93
15000	2.05
20000	2.61
25000	3.15
30000	3.67
35000	4.18
40000	4.66
45000	5.13
50000	5.58
55000	6
60000	6.42
65000	6.81
70000	7.18
75000	7.54
80000	7.87
85000	8.19
90000	8.49
95000	8.77
100000	9.03

Ramp\_Curve Data, Name - None

Flow	Elevation
------	-----------

Outlet1 Data, Name - None

Elevation	Flow
-----------	------

Outlet2 Data, Name - Current Operations

Elevation	Flow
-----------	------

2027	0
2033	5250
2037	12500
2044	27750
2050	46000
2077	171300

Outlet3 Data, Name - Brownlee Gates

Elevation	Flow
-----------	------

1976	51500
1990	69000
2010	87500
2027	100500
2050	116000
2079	132500

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
------------	-------------	-------------	---------	-----------

0	0	0	1	2
---	---	---	---	---

Operating Setting Conditions, Name - OP-1\_Scenario6\_97

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - OP-1\_Scenario6\_97

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

1	12000	False	False
152	12000	False	False
153	6500	True	False
293	6500	True	False
294	13000	False	False
345	13000	False	False
346	12000	False	False
365	12000	False	False

Target\_Elev Data, Name - OP-1\_Scenario6\_97

IDay	Elevation	HardTarget
------	-----------	------------

1	2062	0
4	2076	1
189	2076	0
196	2076	0
274	1976	1

293	1976	0
345	2076	0
365	2062	0

Flood\_Elev Data, Name - H2077 all year

IDay	Elevation
------	-----------

1	2077
365	2077

Min\_Elev Data, Name - H1976 all year

IDay	Elevation
------	-----------

1	1976
365	1976

Level\_Fluct Data, Name - LF3 all yr

IDay	Weekday	Weekend	Hard	Spill
------	---------	---------	------	-------

1	3	3	False	False
244	3	3	False	False
365	3	3	False	False

Level\_Rate Data, Name - None

IDay	Rate
------	------

Flashboard Data, Name - None

Elevation	Volume	Trip	Reset
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Bypass Data, Name - None

IDay	Data	OrInflow	Destination
------	------	----------	-------------

Ramp\_Rate Data, Name - None

IDay	UpRampDay	UpRampHour	DownRampDay	DownRampHour	Type
Peak_Inside					

Withdrawal Data, Name - None

Withdrawal	Return
------------	--------

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations

Unit_No	Head_Loss_ID	Generator_Per	Turbine_Perf_	Gate_Leakage
---------	--------------	---------------	---------------	--------------

**IPC Proprietary Data**

Head Loss Data, ID = 6, Name = Current Operations

Unit_No	Unit_HL	Common_HL	Use_Com2	Max_Unit
---------	---------	-----------	----------	----------

**IPC Proprietary Data**

Turbine Performance, ID = 34, Name = Current Operations



Head                    Flow                    Eff

**IPC Proprietary Data**

Turbine Performance, ID = 47, Name = Unit 5 n

Head                    Flow                    Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 5, Name = Unit 5 Current Ops

gOutput                Eff                    Cap

**IPC Proprietary Data**

Generator Performance Data, ID = 6, Name = Units 1 - 4 Current Ops

gOutput                Eff                    Cap

**IPC Proprietary Data**

Maintenance Data, Name - None

IDay                    Unit

Min\_Unit Data, Name - None

Head                    Flow                    Eff                    CenterLine            Headloss  
GeneratorEff    OpStyle

Scenario Information for Oxbow

Physical Setting Conditions, Name - Current Operations

Res\_Storage Data, Name - CEQUAL RS Curve

Elevation                Storage

1786.42	38536.44
1789.7	41746
1792.98	44954.86
1796.3	48465
1799.54	51975.63
1802.8	55731
1806.1	59487

Tailwater Data, Name - Current Operations

Flow                    Elevation

1	1490
---	------

Ramp\_Curve Data, Name - None

Flow                    Elevation

Outlet1 Data, Name - None  
Elevation Flow

Outlet2 Data, Name - Current Operations  
Elevation Flow

1755	0
1765	25000
1773	50000
1778	55000
1783	100000
1787	125000
1792	150000
1795	175000
1798	200000
1802	225000
1805	250000
1808	275000
1811	300000

Outlet3 Data, Name - None  
Elevation Flow

Plant_Options Data, Name - Current Operations				
Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops

Minimum Data, Name - None			
IDay	Data	OrInflow	Dependent

Base Data, Name - None			
IDay	Data	OrInflow	Dependent

Target_Elev Data, Name - H1803		
IDay	Elevation	HardTarget
1	1803	0
365	1803	0

Flood_Elev Data, Name - Current Operations	
IDay	Elevation
1	1805
365	1805

Min_Elev Data, Name - H1795 all year	
IDay	Elevation
1	1795
365	1795

Level\_Fluct Data, Name - LF5 all year

IDay	Weekday	Weekend	Hard	Spill
1	5	5	True	False
365	5	5	True	False

Level\_Rate Data, Name - None

IDay	Rate
------	------

Flashboard Data, Name - None

Elevation	Volume	Trip	Reset
-----------	--------	------	-------

Bypass Data, Name - Q100 all year

IDay	Data	OrInflow	Destination
1	100	False	3
365	100	False	3

Ramp\_Rate Data, Name - None

IDay	UpRampDay	UpRampHour	DownRampDay	DownRampHour	Type
------	-----------	------------	-------------	--------------	------

Peak\_Inside

Withdrawal Data, Name - None

Withdrawal	Return
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Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations

Unit_No	Head_Loss_ID	Generator_Per	Turbine_Perf_	Gate_Leakage
---------	--------------	---------------	---------------	--------------

**IPC Proprietary Data**

Head Loss Data, ID = 8, Name = Current Operations

Unit_No	Unit_HL	Common_HL	Use_Com2	Max_Unit
---------	---------	-----------	----------	----------

**IPC Proprietary Data**

Turbine Performance, ID = 37, Name = Current Operations

Head	Flow	Eff
------	------	-----

**IPC Proprietary Data**

Generator Performance Data, ID = 7, Name = Current Operations

gOutput	Eff	Cap
---------	-----	-----

**IPC Proprietary Data**

Maintenance Data, Name - None

IDay	Unit
------	------

Min\_Unit Data, Name - None

Head	Flow	Eff	CenterLine	Headloss
GeneratorEff	OpStyle			

Scenario Information for Hells Canyon

Physical Setting Conditions, Name - Current Operation

Res\_Storage Data, Name - CEQUAL RS Curve

Elevation	Storage
-----------	---------

1674.9	152701
1676.5	156419
1679.8	163855
1683.1	171642
1686.4	179429
1689.6	187475
1692.9	195521

Tailwater Data, Name - Current Operations

Flow	Elevation
------	-----------

6000	1467.98
7000	1468.91
8000	1469.68
9000	1470.34
12000	1471.91
14000	1472.77
18000	1474.1
20000	1474.89
24000	1476.1
28000	1477.21
30000	1477.74
35000	1478.98
40000	1480.14
44000	1481.01
48000	1481.84
54000	1483.01
60000	1484.09
65000	1484.92
72500	1486.06
75000	1486.41
80000	1487.08
85000	1487.68
90000	1488.24
95000	1488.73
100000	1489.18
105000	1489.57

Ramp\_Curve Data, Name - Johnson Bar rating curve

Flow	Elevation
------	-----------

0	2.2
3600	3
4570	3.5
5650	4
6899	4.5
8300	5
9797	5.5
11427	6
13173	6.5
14975	7
16876	7.5
18822	8
20810	8.5
22837	9
24901	9.5
27000	10
29066	10.5
31159	11
33277	11.5
35420	12
39770	13
41982	13.5
44213	14
48734	15
51023	15.5
53331	16
58000	17
60500	17.5

Outlet1 Data, Name - None  
Elevation      Flow

Outlet2 Data, Name - Current Operations  
Elevation      Flow

1600	0
1668	168000
1673	195000
1678	226000
1683	255000
1688	284000
1691	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant_Options Data, Name - Current Operations				
Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	2	2

Operating Setting Conditions, Name - OP-1\_Scenario6\_97

Minimum Data, Name - OP-1_Scenario6_97				
IDay	Data	OrInflow	Dependent	

1	12000	False	False
152	12000	False	False
153	6500	True	False
293	6500	True	False
294	13000	False	False
345	13000	False	False
346	12000	False	False
365	12000	False	False

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1687

IDay	Elevation	HardTarget
1	1687	0
365	1687	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1688
365	1688

Min\_Elev Data, Name - 1683 all year

IDay	Elevation
1	1683
365	1683

Level\_Fluct Data, Name - LF5 all year

IDay	Weekday	Weekend	Hard	Spill
1	5	5	False	False
365	5	5	False	False

Level\_Rate Data, Name - None

IDay	Rate
------	------

Flashboard Data, Name - None

Elevation	Volume	Trip	Reset
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Bypass Data, Name - None

IDay	Data	OrInflow	Destination
------	------	----------	-------------

Ramp\_Rate Data, Name - OP-1\_Scenario6

IDay	UpRampDay	UpRampHour	DownRampDay	DownRampHour	Type
Peak_Inside					
1	10	1	10	1	Stage
False					

90	10	1	10	1	Stage
False					
91	2.9	1	2.9	1	Stage
False					
273	2.9	1	2.9	1	Stage
False					
274	10	1	10	1	Stage
False					
293	10	1	10	1	Stage
False					
294	0.0000001	0.0000001	0.0000001	0.0000001	Stage
False					
345	0.0000001	0.0000001	0.0000001	0.0000001	Stage
False					
346	10	1	10	1	Stage
False					
365	10	1	10	1	Stage
False					

Withdrawal Data, Name - None  
 Withdrawal      Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
 Unit\_No          Head\_Loss\_ID    Generator\_Per    Turbine\_Perf\_    Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 11, Name = Current Operations  
 Unit\_No          Unit\_HL            Common\_HL          Use\_Com2            Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 40, Name = Current Operations  
 Head              Flow                Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 9, Name = Current Operations  
 gOutput          Eff                  Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
 IDay              Unit

Min\_Unit Data, Name - None  
 Head              Flow                Eff                  CenterLine          Headloss  
 GeneratorEff    OpStyle





Complete Scenario Data for Scenario—OP-1\_Scenario6\_99 written out on 11/03/2004 11:03:10 AM

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Complete Scenario Data for Scenario - OP-1\_Scenario6\_99  
 Written out on 11/03/2004 11:03:10 AM

System Misc. Name - OP-1\_Scenario6\_99

Load_Shape_ID	CarryOver	MaxPeak	ForecastDays	ForecastAcr
Fall_Chinook_	Flood_Control	Max_Discharge		
8	False	False	3	1
10	4			0

Load\_Shape Data, Name - FP01 SP HL pricing

IMonth	Period	Duration	Price
1	1	6	
1	2	0	
1	3	6	
1	4	5	
1	5	5	
1	6	0	
1	7	2	
1	8	7	
1	9	6	
1	10	4	
1	11	5	
1	12	2	
2	1	6	
2	2	0	
2	3	6	
2	4	5	
2	5	5	
2	6	0	
2	7	2	
2	8	7	
2	9	6	
2	10	4	
2	11	5	
2	12	2	
3	1	6	
3	2	0	
3	3	6	
3	4	5	
3	5	5	
3	6	0	
3	7	2	
3	8	7	
3	9	6	
3	10	4	
3	11	5	
3	12	2	
4	1	6	
4	2	0	
4	3	8	
4	4	0	
4	5	8	
4	6	0	
4	7	2	

4	8	7
4	9	8
4	10	0
4	11	7
4	12	2
5	1	6
5	2	0
5	3	8
5	4	0
5	5	8
5	6	0
5	7	2
5	8	7
5	9	8
5	10	0
5	11	7
5	12	2
6	1	6
6	2	0
6	3	8
6	4	0
6	5	8
6	6	0
6	7	2
6	8	7
6	9	8
6	10	0
6	11	7
6	12	2
7	1	6
7	2	0
7	3	16
7	4	0
7	5	0
7	6	0
7	7	2
7	8	8
7	9	14
7	10	0
7	11	0
7	12	2
8	1	6
8	2	0
8	3	16
8	4	0
8	5	0
8	6	0
8	7	2
8	8	8
8	9	14
8	10	0
8	11	0
8	12	2
9	1	6
9	2	0
9	3	16
9	4	0

9	5	0
9	6	0
9	7	2
9	8	8
9	9	14
9	10	0
9	11	0
9	12	2
10	1	6
10	2	0
10	3	6
10	4	4
10	5	6
10	6	0
10	7	2
10	8	7
10	9	6
10	10	4
10	11	5
10	12	2
11	1	6
11	2	0
11	3	6
11	4	4
11	5	6
11	6	0
11	7	2
11	8	7
11	9	6
11	10	4
11	11	5
11	12	2
12	1	6
12	2	0
12	3	6
12	4	4
12	5	6
12	6	0
12	7	2
12	8	7
12	9	6
12	10	4
12	11	5
12	12	2

Fall\_Chinook Data, Name - None

Draw_Start	Refill_Start	Refill_End	Max_Discharge	Minimum_Max
Maximum_Max	Target_Elevat	Refill_Elevat	Allow_Peak	

Flood\_Control Data, Name - OP-1\_Scenario6

IDay	Dalles_Foreca	Brownlee_Fore	Req_Volume
59	75	3	0
59	75	4	450
59	75	5	600
59	75	6	850

59	85	3	0
59	85	4	450
59	85	5	600
59	85	6	850
59	95	3	0
59	95	4	450
59	95	5	600
59	95	6	850
59	105	3	0
59	105	4	450
59	105	5	600
59	105	6	850
59	115	3	300
59	115	4	450
59	115	5	600
59	115	6	850
90	75	3	0
90	75	4	500
90	75	5	650
90	75	6	980
90	85	3	0
90	85	4	500
90	85	5	650
90	85	6	980
90	95	3	0
90	95	4	500
90	95	5	650
90	95	6	980
90	105	3	0
90	105	4	500
90	105	5	650
90	105	6	980
90	115	3	250
90	115	4	500
90	115	5	650
90	115	6	980
105	75	3	0
105	75	4	550
105	75	5	750
105	75	6	980
105	85	3	0
105	85	4	550
105	85	5	750
105	85	6	980
105	95	3	0
105	95	4	550
105	95	5	750
105	95	6	980
105	105	3	0
105	105	4	550
105	105	5	750
105	105	6	980
105	115	3	200
105	115	4	550
105	115	5	750
105	115	6	980
120	75	3	0

120	75	4	550
120	75	5	750
120	75	6	980
120	85	3	0
120	85	4	550
120	85	5	750
120	85	6	980
120	95	3	0
120	95	4	550
120	95	5	750
120	95	6	980
120	105	3	0
120	105	4	550
120	105	5	750
120	105	6	980
120	115	3	150
120	115	4	550
120	115	5	750
120	115	6	980

Max\_Discharge Data, Name - OP-1\_Scenario6\_99  
 IDay Flow

1	1000000
30	1000000
250	1000000
294	11000
345	11000
346	1000000
365	1000000

Scenario Information for Brownlee

Physical Setting Conditions, Name - Current Ops 97b

Res\_Storage Data, Name - CEQUAL97b  
 Elevation Storage

1973.2	432247
1979.8	475263
1983.2	498341
1986.5	521420
1989.8	546048
1993.1	570676
1996.5	596713
1999.8	622750
2003.1	650212
2006.5	677675
2009.8	706573
2013.1	735471
2016.5	765566
2019.8	795660

2023.1	827202
2029.8	891862
2033.1	924980
2036.4	959727
2039.8	994474
2043.1	1030689
2046.4	1066905
2049.8	1104803
2053.1	1142701
2056.4	1182254
2059.7	1221807
2063.1	1263344
2066.4	1304880
2069.7	1348494
2073.06	1392108
2076.4	1437212
2079.7	1482317

Tailwater Data, Name - Current Operations

Flow	Elevation
------	-----------

500	0.32
1000	0.38
2000	0.51
3000	0.63
4000	0.75
5000	0.87
6000	1
7000	1.11
8000	1.23
9000	1.35
10000	1.47
11000	1.59
12000	1.7
13000	1.82
14000	1.93
15000	2.05
20000	2.61
25000	3.15
30000	3.67
35000	4.18
40000	4.66
45000	5.13
50000	5.58
55000	6
60000	6.42
65000	6.81
70000	7.18
75000	7.54
80000	7.87
85000	8.19
90000	8.49
95000	8.77
100000	9.03

Ramp\_Curve Data, Name - None

Flow	Elevation
------	-----------



Outlet1 Data, Name - None

Elevation      Flow

Outlet2 Data, Name - Current Operations

Elevation      Flow

2027	0
2033	5250
2037	12500
2044	27750
2050	46000
2077	171300

Outlet3 Data, Name - Brownlee Gates

Elevation      Flow

1976	51500
1990	69000
2010	87500
2027	100500
2050	116000
2079	132500

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
------------	-------------	-------------	---------	-----------

0	0	0	1	2
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Operating Setting Conditions, Name - OP-1\_Scenario6\_99

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - OP-1\_Scenario6\_99

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

1	10500	False	False
152	10500	False	False
153	6500	True	False
293	6500	True	False
294	11000	False	False
345	11000	False	False
346	10500	False	False
365	10500	False	False

Target\_Elev Data, Name - OP-1\_Scenario6\_99

IDay	Elevation	HardTarget
------	-----------	------------

1	2062	0
7	2062	0
182	2076	0
189	2076	0
274	1976	1

293	1976	0
345	2076	0
365	2062	0

Flood\_Elev Data, Name - H2077 all year

IDay	Elevation
------	-----------

1	2077
365	2077

Min\_Elev Data, Name - H1976 all year

IDay	Elevation
------	-----------

1	1976
365	1976

Level\_Fluct Data, Name - LF3 all yr

IDay	Weekday	Weekend	Hard	Spill
------	---------	---------	------	-------

1	3	3	False	False
244	3	3	False	False
365	3	3	False	False

Level\_Rate Data, Name - None

IDay	Rate
------	------

Flashboard Data, Name - None

Elevation	Volume	Trip	Reset
-----------	--------	------	-------

Bypass Data, Name - None

IDay	Data	OrInflow	Destination
------	------	----------	-------------

Ramp\_Rate Data, Name - None

IDay	UpRampDay	UpRampHour	DownRampDay	DownRampHour	Type
Peak_Inside					

Withdrawal Data, Name - None

Withdrawal	Return
------------	--------

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations

Unit_No	Head_Loss_ID	Generator_Per	Turbine_Perf_	Gate_Leakage
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**IPC Proprietary Data**

Head Loss Data, ID = 6, Name = Current Operations

Unit_No	Unit_HL	Common_HL	Use_Com2	Max_Unit
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**IPC Proprietary Data**

Turbine Performance, ID = 34, Name = Current Operations

Head	Flow	Eff
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**IPC Proprietary Data**

Turbine Performance, ID = 47, Name = Unit 5 n  
Head                      Flow                      Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 5, Name = Unit 5 Current Ops  
gOutput                      Eff                      Cap

**IPC Proprietary Data**

Generator Performance Data, ID = 6, Name = Units 1 - 4 Current Ops  
gOutput                      Eff                      Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay                      Unit

Min\_Unit Data, Name - None  
Head                      Flow                      Eff                      CenterLine                      Headloss  
GeneratorEff                      OpStyle

Scenario Information for Oxbow

Physical Setting Conditions, Name - Current Operations

Res\_Storage Data, Name - CEQUAL RS Curve  
Elevation                      Storage

1786.42	38536.44
1789.7	41746
1792.98	44954.86
1796.3	48465
1799.54	51975.63
1802.8	55731
1806.1	59487

Tailwater Data, Name - Current Operations  
Flow                      Elevation

1	1490
---	------

Ramp\_Curve Data, Name - None  
Flow                      Elevation

Outlet1 Data, Name - None

Elevation Flow

Outlet2 Data, Name - Current Operations

Elevation	Flow
1755	0
1765	25000
1773	50000
1778	55000
1783	100000
1787	125000
1792	150000
1795	175000
1798	200000
1802	225000
1805	250000
1808	275000
1811	300000

Outlet3 Data, Name - None

Elevation Flow

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1803

IDay	Elevation	HardTarget
1	1803	0
365	1803	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1805
365	1805

Min\_Elev Data, Name - H1795 all year

IDay	Elevation
1	1795
365	1795

Level\_Fluct Data, Name - LF5 all year  
 IDay Weekday Weekend Hard Spill  
 1 5 5 True False  
 365 5 5 True False

Level\_Rate Data, Name - None  
 IDay Rate

Flashboard Data, Name - None  
 Elevation Volume Trip Reset

Bypass Data, Name - Q100 all year  
 IDay Data OrInflow Destination  
 1 100 False 3  
 365 100 False 3

Ramp\_Rate Data, Name - None  
 IDay UpRampDay UpRampHour DownRampDay DownRampHour Type  
 Peak\_Inside

Withdrawal Data, Name - None  
 Withdrawal Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
 Unit\_No Head\_Loss\_ID Generator\_Per Turbine\_Perf\_ Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 8, Name = Current Operations  
 Unit\_No Unit\_HL Common\_HL Use\_Com2 Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 37, Name = Current Operations  
 Head Flow Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 7, Name = Current Operations  
 gOutput Eff Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
 IDay Unit

Min\_Unit Data, Name - None

Head GeneratorEff	Flow OpStyle	Eff	CenterLine	Headloss
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Scenario Information for Hells Canyon

Physical Setting Conditions, Name - Current Operation

Res\_Storage Data, Name - CEQUAL RS Curve

Elevation	Storage
-----------	---------

1674.9	152701
1676.5	156419
1679.8	163855
1683.1	171642
1686.4	179429
1689.6	187475
1692.9	195521

Tailwater Data, Name - Current Operations

Flow	Elevation
------	-----------

6000	1467.98
7000	1468.91
8000	1469.68
9000	1470.34
12000	1471.91
14000	1472.77
18000	1474.1
20000	1474.89
24000	1476.1
28000	1477.21
30000	1477.74
35000	1478.98
40000	1480.14
44000	1481.01
48000	1481.84
54000	1483.01
60000	1484.09
65000	1484.92
72500	1486.06
75000	1486.41
80000	1487.08
85000	1487.68
90000	1488.24
95000	1488.73
100000	1489.18
105000	1489.57

Ramp\_Curve Data, Name - Johnson Bar rating curve

Flow	Elevation
------	-----------

0	2.2
3600	3
4570	3.5
5650	4
6899	4.5
8300	5
9797	5.5
11427	6
13173	6.5
14975	7
16876	7.5
18822	8
20810	8.5
22837	9
24901	9.5
27000	10
29066	10.5
31159	11
33277	11.5
35420	12
39770	13
41982	13.5
44213	14
48734	15
51023	15.5
53331	16
58000	17
60500	17.5

Outlet1 Data, Name - None  
Elevation      Flow

Outlet2 Data, Name - Current Operations  
Elevation      Flow

1600	0
1668	168000
1673	195000
1678	226000
1683	255000
1688	284000
1691	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant_Options Data, Name - Current Operations				
Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	2	2

Operating Setting Conditions, Name - OP-1\_Scenario6\_99

Minimum Data, Name - OP-1_Scenario6_99				
IDay	Data	OrInflow	Dependent	

1	10000	False	False
152	10000	False	False
153	6500	True	False
293	6500	True	False
294	11000	False	False
345	11000	False	False
346	10000	False	False
365	10000	False	False

Base Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Target\_Elev Data, Name - H1687

IDay	Elevation	HardTarget
1	1687	0
365	1687	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1688
365	1688

Min\_Elev Data, Name - 1683 all year

IDay	Elevation
1	1683
365	1683

Level\_Fluct Data, Name - LF5 all year

IDay	Weekday	Weekend	Hard	Spill
1	5	5	False	False
365	5	5	False	False

Level\_Rate Data, Name - None

IDay	Rate
------	------

Flashboard Data, Name - None

Elevation	Volume	Trip	Reset
-----------	--------	------	-------

Bypass Data, Name - None

IDay	Data	OrInflow	Destination
------	------	----------	-------------

Ramp\_Rate Data, Name - OP-1\_Scenario6

IDay	UpRampDay	UpRampHour	DownRampDay	DownRampHour	Type
1	10	1	10	1	Stage
False					



90	10	1	10	1	Stage
False					
91	2.9	1	2.9	1	Stage
False					
273	2.9	1	2.9	1	Stage
False					
274	10	1	10	1	Stage
False					
293	10	1	10	1	Stage
False					
294	0.0000001	0.0000001	0.0000001	0.0000001	Stage
False					
345	0.0000001	0.0000001	0.0000001	0.0000001	Stage
False					
346	10	1	10	1	Stage
False					
365	10	1	10	1	Stage
False					

Withdrawal Data, Name - None  
 Withdrawal      Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
 Unit\_No          Head\_Loss\_ID    Generator\_Per    Turbine\_Perf\_    Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 11, Name = Current Operations  
 Unit\_No          Unit\_HL            Common\_HL          Use\_Com2            Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 40, Name = Current Operations  
 Head              Flow                Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 9, Name = Current Operations  
 gOutput          Eff                  Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
 IDay              Unit

Min\_Unit Data, Name - None  
 Head              Flow                Eff                  CenterLine          Headloss  
 GeneratorEff    OpStyle



Complete Scenario Data for Scenario—OP-1\_Scenario6\_average written out on 11/03/2004 11:05:13 AM

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Complete Scenario Data for Scenario - OP-1\_Scenario6\_average  
 Written out on 11/03/2004 11:05:13 AM

System Misc. Name - OP-1\_Scenario6

Load_Shape_ID	CarryOver	MaxPeak	ForecastDays	ForecastAcr
8	False	False	3	1
10	5			0

Load\_Shape Data, Name - FP01 SP HL pricing

IMonth	Period	Duration	Price
1	1	6	
1	2	0	
1	3	6	
1	4	5	
1	5	5	
1	6	0	
1	7	2	
1	8	7	
1	9	6	
1	10	4	
1	11	5	
1	12	2	
2	1	6	
2	2	0	
2	3	6	
2	4	5	
2	5	5	
2	6	0	
2	7	2	
2	8	7	
2	9	6	
2	10	4	
2	11	5	
2	12	2	
3	1	6	
3	2	0	
3	3	6	
3	4	5	
3	5	5	
3	6	0	
3	7	2	
3	8	7	
3	9	6	
3	10	4	
3	11	5	
3	12	2	
4	1	6	
4	2	0	
4	3	8	
4	4	0	
4	5	8	
4	6	0	
4	7	2	

4	8	7
4	9	8
4	10	0
4	11	7
4	12	2
5	1	6
5	2	0
5	3	8
5	4	0
5	5	8
5	6	0
5	7	2
5	8	7
5	9	8
5	10	0
5	11	7
5	12	2
6	1	6
6	2	0
6	3	8
6	4	0
6	5	8
6	6	0
6	7	2
6	8	7
6	9	8
6	10	0
6	11	7
6	12	2
7	1	6
7	2	0
7	3	16
7	4	0
7	5	0
7	6	0
7	7	2
7	8	8
7	9	14
7	10	0
7	11	0
7	12	2
8	1	6
8	2	0
8	3	16
8	4	0
8	5	0
8	6	0
8	7	2
8	8	8
8	9	14
8	10	0
8	11	0
8	12	2
9	1	6
9	2	0
9	3	16
9	4	0

9	5	0
9	6	0
9	7	2
9	8	8
9	9	14
9	10	0
9	11	0
9	12	2
10	1	6
10	2	0
10	3	6
10	4	4
10	5	6
10	6	0
10	7	2
10	8	7
10	9	6
10	10	4
10	11	5
10	12	2
11	1	6
11	2	0
11	3	6
11	4	4
11	5	6
11	6	0
11	7	2
11	8	7
11	9	6
11	10	4
11	11	5
11	12	2
12	1	6
12	2	0
12	3	6
12	4	4
12	5	6
12	6	0
12	7	2
12	8	7
12	9	6
12	10	4
12	11	5
12	12	2

Fall\_Chinook Data, Name - None

Draw_Start	Refill_Start	Refill_End	Max_Discharge	Minimum_Max
Maximum_Max	Target_Elevat	Refill_Elevat	Allow_Peak	

Flood\_Control Data, Name - OP-1\_Scenario6

IDay	Dalles_Foreca	Brownlee_Fore	Req_Volume
59	75	3	0
59	75	4	450
59	75	5	600
59	75	6	850

59	85	3	0
59	85	4	450
59	85	5	600
59	85	6	850
59	95	3	0
59	95	4	450
59	95	5	600
59	95	6	850
59	105	3	0
59	105	4	450
59	105	5	600
59	105	6	850
59	115	3	300
59	115	4	450
59	115	5	600
59	115	6	850
90	75	3	0
90	75	4	500
90	75	5	650
90	75	6	980
90	85	3	0
90	85	4	500
90	85	5	650
90	85	6	980
90	95	3	0
90	95	4	500
90	95	5	650
90	95	6	980
90	105	3	0
90	105	4	500
90	105	5	650
90	105	6	980
90	115	3	250
90	115	4	500
90	115	5	650
90	115	6	980
105	75	3	0
105	75	4	550
105	75	5	750
105	75	6	980
105	85	3	0
105	85	4	550
105	85	5	750
105	85	6	980
105	95	3	0
105	95	4	550
105	95	5	750
105	95	6	980
105	105	3	0
105	105	4	550
105	105	5	750
105	105	6	980
105	115	3	200
105	115	4	550
105	115	5	750
105	115	6	980
120	75	3	0



120	75	4	550
120	75	5	750
120	75	6	980
120	85	3	0
120	85	4	550
120	85	5	750
120	85	6	980
120	95	3	0
120	95	4	550
120	95	5	750
120	95	6	980
120	105	3	0
120	105	4	550
120	105	5	750
120	105	6	980
120	115	3	150
120	115	4	550
120	115	5	750
120	115	6	980

Max\_Discharge Data, Name - OP-1\_Scenario6\_ave\_lo  
 IDay Flow

1	1000000
30	1000000
250	1000000
294	8500
345	8500
346	1000000
365	1000000

Scenario Information for Brownlee

Physical Setting Conditions, Name - Current Ops 97b

Res\_Storage Data, Name - CEQUAL97b  
 Elevation Storage

1973.2	432247
1979.8	475263
1983.2	498341
1986.5	521420
1989.8	546048
1993.1	570676
1996.5	596713
1999.8	622750
2003.1	650212
2006.5	677675
2009.8	706573
2013.1	735471
2016.5	765566
2019.8	795660

2023.1	827202
2029.8	891862
2033.1	924980
2036.4	959727
2039.8	994474
2043.1	1030689
2046.4	1066905
2049.8	1104803
2053.1	1142701
2056.4	1182254
2059.7	1221807
2063.1	1263344
2066.4	1304880
2069.7	1348494
2073.06	1392108
2076.4	1437212
2079.7	1482317

Tailwater Data, Name - Current Operations

Flow	Elevation
------	-----------

500	0.32
1000	0.38
2000	0.51
3000	0.63
4000	0.75
5000	0.87
6000	1
7000	1.11
8000	1.23
9000	1.35
10000	1.47
11000	1.59
12000	1.7
13000	1.82
14000	1.93
15000	2.05
20000	2.61
25000	3.15
30000	3.67
35000	4.18
40000	4.66
45000	5.13
50000	5.58
55000	6
60000	6.42
65000	6.81
70000	7.18
75000	7.54
80000	7.87
85000	8.19
90000	8.49
95000	8.77
100000	9.03

Ramp\_Curve Data, Name - None

Flow	Elevation
------	-----------

Outlet1 Data, Name - None

Elevation	Flow
-----------	------

Outlet2 Data, Name - Current Operations

Elevation	Flow
-----------	------

2027	0
2033	5250
2037	12500
2044	27750
2050	46000
2077	171300

Outlet3 Data, Name - Brownlee Gates

Elevation	Flow
-----------	------

1976	51500
1990	69000
2010	87500
2027	100500
2050	116000
2079	132500

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
------------	-------------	-------------	---------	-----------

0	0	0	1	2
---	---	---	---	---

Operating Setting Conditions, Name - OP-1\_Scenario6\_average

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - OP-1\_Scenario6\_ave\_lo

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

1	8500	False	False
152	8500	False	False
153	6500	True	False
293	6500	True	False
294	8500	False	False
345	8500	False	False
346	8500	False	False
365	8500	False	False

Target\_Elev Data, Name - OP-1\_Scenario6\_average

IDay	Elevation	HardTarget
------	-----------	------------

1	2026.6	0
7	2062	0
166	2076	0
182	2076	0
189	2076	0

274	1976	1
294	1976	0
345	2076	0
365	2062	0

Flood\_Elev Data, Name - H2077 all year

IDay	Elevation
------	-----------

1	2077
365	2077

Min\_Elev Data, Name - H1976 all year

IDay	Elevation
------	-----------

1	1976
365	1976

Level\_Fluct Data, Name - LF3 all yr

IDay	Weekday	Weekend	Hard	Spill
------	---------	---------	------	-------

1	3	3	False	False
244	3	3	False	False
365	3	3	False	False

Level\_Rate Data, Name - None

IDay	Rate
------	------

Flashboard Data, Name - None

Elevation	Volume	Trip	Reset
-----------	--------	------	-------

Bypass Data, Name - None

IDay	Data	OrInflow	Destination
------	------	----------	-------------

Ramp\_Rate Data, Name - None

IDay	UpRampDay	UpRampHour	DownRampDay	DownRampHour	Type
Peak_Inside					

Withdrawal Data, Name - None

Withdrawal	Return
------------	--------

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations

Unit_No	Head_Loss_ID	Generator_Per	Turbine_Perf_	Gate_Leakage
---------	--------------	---------------	---------------	--------------

**IPC Proprietary Data**

Head Loss Data, ID = 6, Name = Current Operations

Unit_No	Unit_HL	Common_HL	Use_Com2	Max_Unit
---------	---------	-----------	----------	----------

**IPC Proprietary Data**

Turbine Performance, ID = 34, Name = Current Operations  
Head                    Flow                    Eff

**IPC Proprietary Data**

Turbine Performance, ID = 47, Name = Unit 5 n  
Head                    Flow                    Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 5, Name = Unit 5 Current Ops  
gOutput                Eff                    Cap

**IPC Proprietary Data**

Generator Performance Data, ID = 6, Name = Units 1 - 4 Current Ops  
gOutput                Eff                    Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
IDay                    Unit

Min\_Unit Data, Name - None  
Head                    Flow                    Eff                    CenterLine            Headloss  
GeneratorEff    OpStyle

Scenario Information for Oxbow

Physical Setting Conditions, Name - Current Operations

Res\_Storage Data, Name - CEQUAL RS Curve  
Elevation              Storage

1786.42	38536.44
1789.7	41746
1792.98	44954.86
1796.3	48465
1799.54	51975.63
1802.8	55731
1806.1	59487

Tailwater Data, Name - Current Operations  
Flow                    Elevation

1	1490
---	------

Ramp\_Curve Data, Name - None  
Flow                    Elevation

Outlet1 Data, Name - None  
Elevation Flow

Outlet2 Data, Name - Current Operations  
Elevation Flow

1755	0
1765	25000
1773	50000
1778	55000
1783	100000
1787	125000
1792	150000
1795	175000
1798	200000
1802	225000
1805	250000
1808	275000
1811	300000

Outlet3 Data, Name - None  
Elevation Flow

Plant\_Options Data, Name - Current Operations

Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	1	2

Operating Setting Conditions, Name - Proposed Ops

Minimum Data, Name - None

IDay	Data	OrInflow	Dependent
------	------	----------	-----------

Base Data, Name - None

IDay	Data	OrInflow	Dependent
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Target\_Elev Data, Name - H1803

IDay	Elevation	HardTarget
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1	1803	0
365	1803	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
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1	1805
365	1805

Min\_Elev Data, Name - H1795 all year

IDay	Elevation
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1	1795
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365 1795

Level\_Fluct Data, Name - LF5 all year

IDay	Weekday	Weekend	Hard	Spill
1	5	5	True	False
365	5	5	True	False

Level\_Rate Data, Name - None

IDay	Rate
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Flashboard Data, Name - None

Elevation	Volume	Trip	Reset
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Bypass Data, Name - Q100 all year

IDay	Data	OrInflow	Destination
1	100	False	3
365	100	False	3

Ramp\_Rate Data, Name - None

IDay	UpRampDay	UpRampHour	DownRampDay	DownRampHour	Type
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Peak\_Inside

Withdrawal Data, Name - None

Withdrawal	Return
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Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations

Unit_No	Head_Loss_ID	Generator_Per	Turbine_Perf_	Gate_Leakage
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**IPC Proprietary Data**

Head Loss Data, ID = 8, Name = Current Operations

Unit_No	Unit_HL	Common_HL	Use_Com2	Max_Unit
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**IPC Proprietary Data**

Turbine Performance, ID = 37, Name = Current Operations

Head	Flow	Eff
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**IPC Proprietary Data**

Generator Performance Data, ID = 7, Name = Current Operations

gOutput	Eff	Cap
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**IPC Proprietary Data**

Maintenance Data, Name - None

IDay	Unit
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Min\_Unit Data, Name - None  
Head            Flow            Eff            CenterLine    Headloss  
GeneratorEff   OpStyle

Scenario Information for Hells Canyon

Physical Setting Conditions, Name - Current Operation

Res\_Storage Data, Name - CEQUAL RS Curve

Elevation	Storage
1674.9	152701
1676.5	156419
1679.8	163855
1683.1	171642
1686.4	179429
1689.6	187475
1692.9	195521

Tailwater Data, Name - Current Operations

Flow	Elevation
6000	1467.98
7000	1468.91
8000	1469.68
9000	1470.34
12000	1471.91
14000	1472.77
18000	1474.1
20000	1474.89
24000	1476.1
28000	1477.21
30000	1477.74
35000	1478.98
40000	1480.14
44000	1481.01
48000	1481.84
54000	1483.01
60000	1484.09
65000	1484.92
72500	1486.06
75000	1486.41
80000	1487.08
85000	1487.68
90000	1488.24
95000	1488.73
100000	1489.18
105000	1489.57

Ramp\_Curve Data, Name - Johnson Bar rating curve

Flow	Elevation
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0	2.2
3600	3
4570	3.5
5650	4
6899	4.5
8300	5
9797	5.5
11427	6
13173	6.5
14975	7
16876	7.5
18822	8
20810	8.5
22837	9
24901	9.5
27000	10
29066	10.5
31159	11
33277	11.5
35420	12
39770	13
41982	13.5
44213	14
48734	15
51023	15.5
53331	16
58000	17
60500	17.5

Outlet1 Data, Name - None  
Elevation      Flow

Outlet2 Data, Name - Current Operations  
Elevation      Flow

1600	0
1668	168000
1673	195000
1678	226000
1683	255000
1688	284000
1691	300000

Outlet3 Data, Name - None  
Elevation      Flow

Plant_Options Data, Name - Current Operations				
Time_Delay	Min_Op_Flow	Min_RC_Flow	Op_Type	PeakorMax
0	0	0	2	2

Operating Setting Conditions, Name - OP-1\_Scenario6\_average

Minimum Data, Name - OP-1\_Scenario6\_ave\_lo

IDay	Data	OrInflow	Dependent
1	8500	False	False
152	8500	False	False
153	6500	True	False
293	6500	True	False
294	8500	False	False
345	8500	False	False
346	8500	False	False
365	8500	False	False

Base Data, Name - None

IDay	Data	OrInflow	Dependent
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Target\_Elev Data, Name - H1687

IDay	Elevation	HardTarget
1	1687	0
365	1687	0

Flood\_Elev Data, Name - Current Operations

IDay	Elevation
1	1688
365	1688

Min\_Elev Data, Name - 1683 all year

IDay	Elevation
1	1683
365	1683

Level\_Fluct Data, Name - LF5 all year

IDay	Weekday	Weekend	Hard	Spill
1	5	5	False	False
365	5	5	False	False

Level\_Rate Data, Name - None

IDay	Rate
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Flashboard Data, Name - None

Elevation	Volume	Trip	Reset
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Bypass Data, Name - None

IDay	Data	OrInflow	Destination
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Ramp\_Rate Data, Name - OP-1\_Scenario6

IDay	UpRampDay	UpRampHour	DownRampDay	DownRampHour	Type
1	10	1	10	1	Stage
False					

90	10	1	10	1	Stage
False					
91	2.9	1	2.9	1	Stage
False					
273	2.9	1	2.9	1	Stage
False					
274	10	1	10	1	Stage
False					
293	10	1	10	1	Stage
False					
294	0.0000001	0.0000001	0.0000001	0.0000001	Stage
False					
345	0.0000001	0.0000001	0.0000001	0.0000001	Stage
False					
346	10	1	10	1	Stage
False					
365	10	1	10	1	Stage
False					

Withdrawal Data, Name - None  
 Withdrawal      Return

Generating Setting Conditions, Name - Current Operations

Plant\_Generation Data, Name - Current Operations  
 Unit\_No          Head\_Loss\_ID      Generator\_Per      Turbine\_Perf\_      Gate\_Leakage

**IPC Proprietary Data**

Head Loss Data, ID = 11, Name = Current Operations  
 Unit\_No          Unit\_HL              Common\_HL          Use\_Com2              Max\_Unit

**IPC Proprietary Data**

Turbine Performance, ID = 40, Name = Current Operations  
 Head              Flow                  Eff

**IPC Proprietary Data**

Generator Performance Data, ID = 9, Name = Current Operations  
 gOutput          Eff                      Cap

**IPC Proprietary Data**

Maintenance Data, Name - None  
 IDay              Unit

Min\_Unit Data, Name - None  
 Head              Flow                  Eff                      CenterLine              Headloss  
 GeneratorEff      OpStyle

