Comparison of STA Design & Restudy Index BMP Performance: 51% (1995-1997) 1965-1995

Conceptual Design (WY 1979-1988 flows & loads):

1	Without IAP & Makeup	original design assumptions, ignores IAP & BMP makeup water
2	With IAP & Makeup	designs modified to reflect IAP & BMP makeup water
		50% of makeup water through STA-34, remainder to historical inflow points
		IAP = reduction in backpumping to Lake Okeechobee

Restudy Alternatives:

- 50Base
- ALT-A
- ALT-B
- ALT-C
- ALT-D

Comparisons of Water & Phosphorus Balances:

- STA-1E
- STA1-W
- STA-2
- STA-34
- STA-5
- STA-6
- STA Inflows + Bypasses
- Outflows + Bypasses
- EAA Runoff - by Term
- EAA Runoff - by STA
- EAA Runoff - By Basin
- STA & Res. Inflow Sources
- Outflow Destinations
- Net Reduction (In - Out)

07/16/98

Comparison of STA Design & Restudy | STA-1E | BMP Performance: 51% (1995-1997) | 1965-1995 | 07/16/98

Conceptual Design (WY 1979-1988)

	Without IAP & Makeup			With IAP & Makeup		
Source	Flow	Load	Conc	Flow	Load	Conc
S5A	29.1	7.6	212	29.1	7.6	212
S5A-East	1.8	0.4	180	1.8	0.4	180
C51W Diversion	90.0	20.8	187	90.0	20.8	187
C51W Base Pd	3.9	0.7	149	3.9	0.7	149
S5A Makeup	0.0	0.0	0	4.9	0.4	70
S5A IAP	0.0	0.0	0	0.2	0.0	99
Total Inflow	124.8	29.5	191	129.9	29.9	187
STA Outflow	126.2	7.8	50	131.3	8.0	50

Restudy	50Base			ALT-A			ALT-B			ALT-C			ALT-D			A-D13R		
	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc
ST1EI1(fr EAA)	2.3	0.4	162	2.4	0.5	162	2.4	0.5	162	2.4	0.5	162	2.1	0.4	162	2.1	0.4	162
ST1EI1 (fr Lake)	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0
S319	114.4	26.1	185	122.2	27.9	185	122.5	28.0	185	122.4	28.0	185	120.2	27.4	185	120.1	27.4	185
WSST1E	0.3	0.0	122	0.2	0.0	122	0.2	0.0	122	0.2	0.0	122	0.2	0.0	122	0.2	0.0	122
TOTALIN	116.9	26.6	184	124.7	28.4	184	125.0	28.5	184	125.0	28.5	184	122.5	27.9	184	122.4	27.9	184
ST1EQ1	122.4	6.4	42	130.4	7.4	46	130.7	7.5	46	130.7	7.5	46	127.8	7.1	45	127.8	7.1	45
S319WS	0.1	0.0	42	0.0	0.0	46	0.0	0.0	46	0.0	0.0	46	0.0	0.0	45	0.0	0.0	45
TOTALOUT	122.5	6.4	42	130.5	7.4	46	130.7	7.5	46	130.7	7.5	46	127.8	7.1	45	127.8	7.1	45
NET	-5.6	20.2	142	-5.7	21.0	138	-5.7	21.0	138	-5.7	21.0	138	-5.4	20.8	140	-5.4	20.8	140

Comparison of STA Design & Restudy | STA1-W | BMP Performance: 51% (1995-1997) | 1965-1995 | 07/16/98

Conceptual Design (WY 1979-1988)

	Without IAP & Makeup			With IAP & Makeup		
Source	Flow	Load	Conc	Flow	Load	Conc
S5A	117.4	30.7	212	117.4	30.7	212
S5A-East	7.3	1.6	180	7.3	1.6	180
S5A Lake Rel	2.3	0.6	200	2.3	0.6	200
S5A Makeup	0.0	0.0	0	19.7	1.7	70
S5A IAP	0.0	0.0	0	0.9	0.1	99
C51W Diversion	11.0	2.5	187	11.0	2.5	187
C51W Base Pd	0.5	0.1	149	0.5	0.1	149
East Beach WCD	4.3	2.1	390	4.3	2.1	390
Total Inflow	142.8	37.6	213	163.5	39.4	195
STA Outflow	144.6	8.8	49	165.3	10.7	52

Restudy	50Base			ALT-A			ALT-B			ALT-C			ALT-D			A-D13R		
	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc
ST1WI1 (fr EAA)	160.8	32.2	162	166.2	33.2	162	165.5	33.1	162	166.3	33.2	162	178.5	35.7	162	178.5	35.7	162
ST1WI1 (fr Lake)	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0
WSST1W	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0
TOTALIN	160.8	32.2	162	166.2	33.2	162	165.5	33.1	162	166.3	33.2	162	178.5	35.7	162	178.5	35.7	162
ST1WQ1	162.2	8.7	43	167.4	9.2	45	166.8	9.2	45	167.5	9.3	45	179.6	10.9	49	179.6	10.8	49
TOTALOUT	162.2	8.7	43	167.4	9.2	45	166.8	9.2	45	167.5	9.3	45	179.6	10.9	49	179.6	10.8	49
NET	-1.4	23.5	119	-1.3	24.0	117	-1.3	23.9	117	-1.3	24.0	117	-1.1	24.8	113	-1.1	24.9	113
ST1BYP	0.0	0.0	162	0.0	0.0	162	0.0	0.0	162	0.0	0.0	162	0.0	0.0	162	0.0	0.0	162
ST1WQ1	162.2	8.7	43	167.4	9.2	45	166.8	9.2	45	167.5	9.3	45	179.6	10.9	49	179.6	10.8	49
Outflow+Bypass	162.2	8.7	43	167.4	9.2	45	166.8	9.2	45	167.5	9.3	45	179.6	10.9	49	179.6	10.8	49

Comparison of STA Design & Restudy | STA-2 | BMP Performance: 51% (1995-1997) | 1965-1995 | 07/16/98

Conceptual Design (WY 1979-1988)

	Without IAP & Makeup			With IAP & Makeup		
Source	Flow	Load	Conc	Flow	Load	Conc
S5A	30.0	7.9	212	30.0	7.9	212
S5A-East	1.9	0.4	180	1.9	0.4	180
S6	131.4	23.1	143	131.4	23.1	143
S6 Lake Rel	2.9	0.3	82	2.9	0.3	82
298 Dist (2)	8.4	2.1	204	8.4	2.1	204
S5A Makeup	0.0	0.0	0	5.1	0.4	70
S6 Makeup	0.0	0.0	0	11.0	1.0	70
S5A IAP	0.0	0.0	0	0.2	0.0	99
S6 IAP	0.0	0.0	0	24.0	5.7	192
Total Inflow	174.6	33.8	157	214.9	40.9	154
STA Outflow	176.3	10.8	50	216.6	15.7	59

Restudy	50Base			ALT-A			ALT-B			ALT-C			ALT-D			A-D13R		
	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc
RUNS562	213.9	26.1	99	183.3	22.4	99	182.3	22.3	99	183.0	22.4	99	186.7	22.8	99	186.6	22.8	99
298ST2	12.9	3.2	204	10.6	2.7	204	10.5	2.7	204	10.8	2.7	204	10.7	2.7	204	10.8	2.7	204
FLIMPH	11.1	1.1	78	27.9	2.7	78	36.0	3.5	78	42.4	4.1	78	40.4	3.9	78	9.4	0.9	78
HLSBRG	0.0	0.0	78	0.0	0.0	78	0.0	0.0	78	0.0	0.0	78	0.0	0.0	78	0.0	0.0	78
WSSTA2	0.0	0.0	78	0.0	0.0	78	0.0	0.0	78	0.0	0.0	78	0.0	0.0	78	0.0	0.0	78
TOTALIN	237.8	30.4	104	221.8	27.8	101	228.9	28.4	101	236.1	29.2	100	237.9	29.4	100	206.8	26.4	104
ST2OT1	232.7	12.8	44	216.7	11.0	41	223.7	11.5	42	230.9	12.2	43	232.6	12.3	43	201.8	9.8	39
TOTALOUT	232.7	12.8	44	216.7	11.0	41	223.7	11.5	42	230.9	12.2	43	232.6	12.3	43	201.8	9.8	39
NET	5.1	17.7	59	5.2	16.8	60	5.2	16.9	59	5.3	17.0	57	5.3	17.1	57	5.0	16.7	64
ST2BYP	21.1	2.6	99	4.4	0.5	99	7.9	1.0	99	7.8	1.0	99	7.6	0.9	99	7.8	1.0	99
ST2OT1	232.7	12.8	44	216.7	11.0	41	223.7	11.5	42	230.9	12.2	43	232.6	12.3	43	201.8	9.8	39
Outflow+Bypass	253.8	15.3	49	221.0	11.5	42	231.6	12.5	44	238.7	13.1	45	240.2	13.3	45	209.6	10.7	41

Comparison of STA Design & Restudy | STA-34 | BMP Performance: 51% (1995-1997) | 1965-1995 | 07/16/98

Conceptual Design (WY 1979-1988)

	Without IAP & Makeup			With IAP & Makeup		
Source	Flow	Load	Conc	Flow	Load	Conc
S7	159.7	20.2	103	159.7	20.2	103
S8 - SDR	169.9	42.8	204	169.9	42.8	204
S7 Lake Reg	8.2	0.7	70	8.2	0.7	70
S8 Lake Reg	7.7	0.7	72	7.7	0.7	72
G136	10.6	0.7	53	10.6	0.7	53
S-236/298	9.4	1.6	135	9.4	1.6	135
South/298	2.8	0.4	102	2.8	0.4	102
Lake Release	236.4	20.4	70	176.0	15.2	70
S7+S8 Makeup	0.0	0.0	0	124.5	10.8	70
S7 IAP	0.0	0.0	0	27.6	6.7	195
S8 IAP	0.0	0.0	0	25.3	5.0	160
Total Inflow	604.8	87.4	117	721.8	104.6	117
STA Outflow	609.2	37.9	50	726.2	50.6	56

Restudy	50Base			ALT-A			ALT-B			ALT-C			ALT-D			A-D13R		
	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc
R78ST3	383.9	43.6	92	188.9	21.5	92	183.8	20.9	92	184.1	20.9	92	184.1	20.9	92	184.6	21.0	92
LKTST3	261.0	21.4	67	155.9	12.8	67	213.4	18.2	69	214.3	18.4	70	210.4	18.1	70	213.0	18.4	70
G136ST3	11.7	2.0	141	12.7	2.2	141	13.2	2.3	141	12.7	2.2	141	12.7	2.2	141	12.7	2.2	141
S236SO	4.8	0.8	135	6.3	1.0	135	7.7	1.3	135	7.3	1.2	135	7.3	1.2	135	7.4	1.2	135
298ST3	3.4	0.4	102	4.9	0.6	102	5.9	0.7	102	5.9	0.7	102	5.9	0.7	102	5.9	0.7	102
WCS4				326.5	22.3	55	312.8	21.7	56									
WCS4N										182.4	12.9	57	189.1	13.2	56	197.0	13.6	56
WCS4S										60.6	5.4	72	63.7	5.6	71	67.1	5.8	70
EVBLSN										4.4	0.3	57	4.2	0.3	56	3.9	0.3	56
EVBLSS										7.0	0.6	72	7.2	0.6	71	5.6	0.5	70
TOTALIN	664.8	68.3	83	695.2	60.5	70	736.8	65.1	72	678.8	62.7	75	684.7	62.9	74	697.2	63.8	74
ST3TL4	5.4	0.3	39	1.1	0.0	34	317.5	14.1	36	214.0	9.4	36	217.7	9.6	36	227.6	10.1	36
ST3NEA	188.2	9.0	39	163.1	6.9	34	131.9	5.9	36	127.6	5.6	36	128.5	5.6	36	132.2	5.9	36
ST3TNW	113.1	5.4	39	169.3	7.1	34	120.2	5.4	36	103.4	4.5	36	103.9	4.6	36	104.5	4.6	36
ST3TS8	300.6	14.4	39	291.2	12.3	34	96.5	4.3	36	167.8	7.4	36	166.4	7.3	36	166.4	7.4	36
ST3TS7	38.3	1.8	39	35.9	1.5	34	49.6	2.2	36	44.4	1.9	36	46.4	2.0	36	44.4	2.0	36
S7TCA3	0.0	0.0	39	13.5	0.6	34	0.0	0.0	36	0.0	0.0	36	0.0	0.0	36	0.0	0.0	36
ST3THL	0.0	0.0	39	2.6	0.1	34	2.3	0.1	36	2.5	0.1	36	2.6	0.1	36	2.7	0.1	36
TOTALOUT	645.7	30.8	39	676.7	28.6	34	717.9	32.0	36	659.6	29.0	36	665.6	29.2	36	677.7	30.1	36
NET	19.1	37.5	45	18.5	31.9	36	18.8	33.1	35	19.2	33.8	39	19.1	33.7	39	19.5	33.7	38
TOTALOUT	645.7	30.8	39	676.7	28.6	34	717.9	32.0	36	659.6	29.0	36	665.6	29.2	36	677.7	30.1	36
ST3BYP	0.0	0.0	92	19.9	2.3	92	27.7	3.1	92	27.7	3.1	92	28.0	3.2	92	27.8	3.2	92
Outflow+Bypass	645.7	30.8	39	696.6	30.8	36	745.6	35.1	38	687.4	32.1	38	693.6	32.4	38	705.5	33.2	38

Comparison of STA Design & Restudy — STA-5 — BMP Performance: 51% (1995-1997) — 1965-1995 — 07/16/98

Conceptual Design (WY 1979-1988)

	Without IAP & Makeup			With IAP & Makeup		
Source	Flow	Load	Conc	Flow	Load	Conc
C139	103.9	33.6	262	103.9	33.6	262
Total Inflow	103.9	33.6	262	103.9	33.6	262
STA Outflow	105.0	9.6	74	105.0	9.6	74

Restudy	50Base			ALT-A			ALT-B			ALT-C			ALT-D			A-D13R		
	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc
STA5IQ (C139)	130.7	38.4	238	130.6	38.4	238	130.6	38.4	238	130.7	38.4	238	130.6	38.4	238	130.6	38.4	238
STA5IQ (Lake)	0.9	0.1	64	28.7	2.3	64	28.8	2.3	64	29.0	2.3	64	29.1	2.3	64	29.0	2.3	64
TOTALIN	131.6	38.5	237	159.3	40.6	207	159.4	40.7	207	159.6	40.7	206	159.7	40.7	206	159.6	40.7	206
ST5OT1	128.6	14.1	89	155.7	17.3	90	155.8	17.3	90	156.0	17.3	90	156.1	17.3	90	156.0	17.3	90
TOTALOUT	128.6	14.1	89	155.7	17.3	90	155.8	17.3	90	156.0	17.3	90	156.1	17.3	90	156.0	17.3	90
NET	3.0	24.4	148	3.6	23.4	117	3.6	23.3	117	3.6	23.3	116	3.6	23.3	116	3.6	23.3	116
ST5OT1	128.6	14.1	89	155.7	17.3	90	155.8	17.3	90	156.0	17.3	90	156.1	17.3	90	156.0	17.3	90
ST5BYP	0.3	0.1	238	0.4	0.1	238	0.4	0.1	238	0.3	0.1	238	0.4	0.1	238	0.4	0.1	238
Outflow+Bypass	128.9	14.2	89	156.0	17.4	90	156.1	17.4	90	156.3	17.4	90	156.4	17.5	90	156.3	17.4	90

Comparison of STA Design & Restudy | STA-6 | BMP Performance: 51% (1995-1997) | 1965-1995 | 07/16/98

Conceptual Design (WY 1979-1988)

	Without IAP & Makeup			With IAP & Makeup		
Source	Flow	Load	Conc	Flow	Load	Conc
So Div Ranch	17.9	4.4	197	17.9	4.4	197
C139	0.0	0.0	262	0.0	0.0	262
C139 Annex	0.0	0.0	70	0.0	0.0	70
S8 SDR Makeup	0.0	0.0	0	2.5	0.2	70
Total Inflow	17.9	4.4	198	20.4	4.6	182
STA Outflow	18.1	1.0	43	20.7	1.2	48

Restudy	50Base			ALT-A			ALT-B			ALT-C			ALT-D			A-D13R		
	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc
SUGRST6	21.6	2.7	100	23.3	2.9	100	23.2	2.9	100	23.3	2.9	100	23.3	2.9	100	23.4	2.9	100
U1TST6	0.0	0.0	70	0.0	0.0	70	0.0	0.0	70	0.0	0.0	70	0.0	0.0	70	0.0	0.0	70
C139ST6	0.0	0.0	238	0.0	0.0	238	0.0	0.0	238	0.0	0.0	238	0.0	0.0	238	0.0	0.0	238
WSSTA6	2.4	0.2	64	2.9	0.2	64	2.8	0.2	64	2.8	0.2	64	3.0	0.2	64	3.0	0.2	64
TOTALIN	23.9	2.8	96	26.2	3.1	96	26.0	3.1	96	26.1	3.1	96	26.3	3.1	96	26.3	3.1	96
ST6SEM	1.1	0.0	33	1.5	0.1	34	1.4	0.1	34	1.5	0.1	34	1.5	0.1	33	1.5	0.1	33
ST6WCA	21.3	0.9	33	22.7	0.9	34	10.2	0.4	34	13.1	0.5	34	12.7	0.5	33	12.9	0.5	33
ST6TL4	0.0	0.0	33	0.1	0.0	34	12.5	0.5	34	9.7	0.4	34	10.2	0.4	33	10.0	0.4	33
TOTALOUT	22.5	0.9	33	24.2	1.0	34	24.1	1.0	34	24.3	1.0	34	24.4	1.0	33	24.4	1.0	33
NET	1.5	1.9	63	2.0	2.1	62	1.9	2.1	62	1.8	2.1	63	1.9	2.1	63	1.9	2.1	63
STA6 Outflow	22.5	0.9	33	24.2	1.0	34	24.1	1.0	34	24.3	1.0	34	24.4	1.0	33	24.4	1.0	33
STA6BYP	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0
Outflow+Bypass	22.5	0.9	33	24.2	1.0	34	24.1	1.0	34	24.3	1.0	34	24.4	1.0	33	24.4	1.0	33

Comparison of STA Design & Restudy | STA Inflows + Bypasses | BMP Performance: 51% (1995-1997) | 1965-1995 | 07/16/98

Conceptual Design (WY 1979-1988)

	Without IAP & Makeup			With IAP & Makeup				
STA	Flow	Load	Conc	Flow	Load	Conc		
STA-1E	124.8	29.5	191	129.9	29.9	187	1.04	1.02
STA1-W	142.8	37.6	213	163.5	39.4	195	1.14	1.05
STA-2	174.6	33.8	157	214.9	40.9	154	1.23	1.21
STA-34	604.8	87.4	117	721.8	104.6	117	1.19	1.20
STA-5	103.9	33.6	262	103.9	33.6	262	1.00	1.00
STA-6	17.9	4.4	198	20.4	4.6	182	1.14	1.05
Total	1168.7	226.2	157	1354.4	253.0	151		

Restudy	50Base			ALT-A			ALT-B			ALT-C			ALT-D			A-D13R		
	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc
STA-1E	116.9	26.6	184	124.7	28.4	184	125.0	28.5	184	125.0	28.5	184	122.5	27.9	184	122.4	27.9	184
STA1-W	160.8	32.2	162	166.2	33.2	162	165.5	33.1	162	166.3	33.2	162	178.5	35.7	162	178.5	35.7	162
STA-2	258.9	33.0	103	226.2	28.3	101	236.8	29.4	100	243.9	30.1	100	245.5	30.3	100	214.6	27.4	103
STA-34	664.8	68.3	83	715.1	62.7	71	764.4	68.2	72	706.5	65.9	76	712.7	66.1	75	724.9	66.9	75
STA-5	131.9	38.6	237	159.6	40.7	207	159.7	40.8	207	159.9	40.8	207	160.0	40.8	206	159.9	40.8	206
STA-6	23.9	2.8	96	26.2	3.1	96	26.0	3.1	96	26.1	3.1	96	26.3	3.1	96	26.3	3.1	96
Total	1357.2	201.5	120	1418.0	196.5	112	1477.4	203.0	111	1427.7	201.6	114	1445.4	203.9	114	1426.7	201.8	115

Comparison of STA Design & Restudy | Outflows + Bypasses | BMP Performance: 51% (1995-1997) | 1965-1995 | 07/16/98

Conceptual Design (WY 1979-1988)

	Without IAP & Makeup			With IAP & Makeup		
STA	Flow	Load	Conc	Flow	Load	Conc
STA-1E	126.2	7.8	50	131.3	8.0	50
STA1-W	144.6	8.8	49	165.3	10.7	52
STA-2	176.3	10.8	50	216.6	15.7	59
STA-34	609.2	37.9	50	726.2	50.6	56
STA-5	105.0	9.6	74	105.0	9.6	74
STA-6	18.1	1.0	43	20.7	1.2	48
Total	1179.4	75.9	52	1365.0	95.8	57

Restudy	50Base			ALT-A			ALT-B			ALT-C			ALT-D			A-D13R		
	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc
STA-1E	122.5	6.4	42	130.5	7.4	46	130.7	7.5	46	130.7	7.5	46	127.8	7.1	45	127.8	7.1	45
STA1-W	162.2	8.7	43	167.4	9.2	45	166.8	9.2	45	167.5	9.3	45	179.6	10.9	49	179.6	10.8	49
STA-2	253.8	15.3	49	221.0	11.5	42	231.6	12.5	44	238.7	13.1	45	240.2	13.3	45	209.6	10.7	41
STA-34	645.7	30.8	39	696.6	30.8	36	745.6	35.1	38	687.4	32.1	38	693.6	32.4	38	705.5	33.2	38
STA-5	128.9	14.2	89	156.0	17.4	90	156.1	17.4	90	156.3	17.4	90	156.4	17.5	90	156.3	17.4	90
STA-6	22.5	0.9	33	24.2	1.0	34	24.1	1.0	34	24.3	1.0	34	24.4	1.0	33	24.4	1.0	33
Total	1335.4	76.3	46	1395.7	77.4	45	1454.9	82.7	46	1404.8	80.4	46	1422.0	82.1	47	1403.2	80.3	46

Comparison of STA Design & Restudy | EAA Runoff - by Term | BMP Performance: 51% (1995-1997) | 1965-1995 | 07/16/98

Conceptual Design (WY 1979-1988)

	Without IAP & Makeup			With IAP & Makeup		
	Flow	Load	Conc	Flow	Load	Conc
S5A->Lake	9.9	2.3	188	8.5	2.1	200
S6->Lake	33.5	7.9	191	9.6	2.3	194
S7->Lake	38.7	9.3	195	11.0	2.7	199
S8->Lake	35.5	7.0	160	10.1	2.0	160
S5A->STA-1E	30.9	8.0	210	31.1	8.0	209
S5A->STA-1W	124.7	32.3	210	125.6	32.4	209
S5A->STA-2	31.9	8.3	210	32.1	8.3	209
S6 ->STA-2	131.4	23.1	143	155.4	28.8	150
S7->STA-34	159.7	20.2	103	187.3	26.9	116
S8->STA-34	169.9	42.8	204	195.3	47.8	198
S8->STA-6	17.9	4.4	198	17.9	4.4	198
Total	784.0	165.5	171	783.9	165.7	171

Restudy	50Base			ALT-A			ALT-B			ALT-C			ALT-D			A-D13R		
	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc
S2PMP	29.2	6.6	183	10.3	2.3	183	0.7	0.2	183	0.7	0.1	183	0.7	0.1	183	0.6	0.1	183
S3PMP	3.4	0.6	146	0.2	0.0	146	0.2	0.0	146	0.2	0.0	146	0.2	0.0	146	0.2	0.0	146
R5AST1	162.9	32.6	162	168.6	33.7	162	167.8	33.6	162	168.7	33.7	162	181.0	36.2	162	181.0	36.2	162
ST1BYP	0.0	0.0	162	0.0	0.0	162	0.0	0.0	162	0.0	0.0	162	0.0	0.0	162	0.0	0.0	162
RUNS562	213.9	26.1	99	183.3	22.4	99	182.3	22.3	99	183.0	22.4	99	186.7	22.8	99	186.6	22.8	99
ST2BYP	21.1	2.6	99	4.4	0.5	99	7.9	1.0	99	7.8	1.0	99	7.6	0.9	99	7.8	1.0	99
ST3BYP	0.0	0.0	92	19.9	2.3	92	27.7	3.1	92	27.7	3.1	92	28.0	3.2	92	27.8	3.2	92
R78ST3	383.9	43.6	92	188.9	21.5	92	183.8	20.9	92	184.1	20.9	92	184.1	20.9	92	184.6	21.0	92
R78EAAR	0.0	0.0	92	162.1	18.4	92	164.1	18.6	92	164.9	18.7	92	166.0	18.9	92	165.5	18.8	92
WLES8	1.1	0.1	92	1.9	0.2	92	0.0	0.0	92	0.0	0.0	92	0.0	0.0	92	0.0	0.0	92
WLES7	0.2	0.0	92	0.4	0.0	92	1.2	0.1	92	1.3	0.1	92	1.3	0.1	92	1.6	0.2	92
WLES6	0.0	0.0	99	0.0	0.0	99	0.0	0.0	99	0.0	0.0	99	0.0	0.0	99	0.0	0.0	99
SUGRST6	21.6	2.7	100	23.3	2.9	100	23.2	2.9	100	23.3	2.9	100	23.3	2.9	100	23.4	2.9	100
ST6BYP	0.0	0.0	100	0.0	0.0	100	0.0	0.0	100	0.0	0.0	100	0.0	0.0	100	0.0	0.0	100
TOTAL	837.2	114.9	108	763.3	104.3	110	758.9	102.7	110	761.7	103.0	110	778.9	106.1	110	779.1	106.1	110

Comparison of STA Design & Restudy — EAA Runoff - by STA — BMP Performance: 51% (1995-1997) — 1965-1995 — 07/16/98

Conceptual Design (WY 1979-1988)

	Without IAP & Makeup			With IAP & Makeup		
	Flow	Load	Conc	Flow	Load	Conc
STA-1E	30.9	8.0	210	31.1	8.0	209
STA 1W	124.7	32.3	210	125.6	32.4	209
STA-2	163.3	31.4	156	187.5	37.1	160
STA-34	329.6	63.0	155	382.6	74.7	158
STA-6	17.9	4.4	198	17.9	4.4	198
Total	666.4	139.0	169	744.7	156.6	170

Restudy	50Base			ALT-A			ALT-B			ALT-C			ALT-D			A-D13R		
	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc
STA-1E	2.3	0.4	162	2.4	0.5	162	2.4	0.5	162	2.4	0.5	162	2.1	0.4	162	2.1	0.4	162
STA 1W	160.8	32.2	162	166.2	33.2	162	165.5	33.1	162	166.3	33.2	162	178.5	35.7	162	178.5	35.7	162
STA-2	235.0	28.7	99	187.7	22.9	99	190.3	23.3	99	190.8	23.3	99	194.3	23.7	99	194.4	23.8	99
STA-34/EAA Res.	383.9	43.6	92	370.9	42.1	92	375.5	42.6	92	376.8	42.8	92	378.1	42.9	92	377.8	42.9	92
STA-6	21.6	2.7	100	23.3	2.9	100	23.2	2.9	100	23.3	2.9	100	23.3	2.9	100	23.4	2.9	100
Total	803.5	107.6	108	750.4	101.6	110	756.8	102.3	110	759.4	102.7	110	776.3	105.7	110	776.2	105.7	110

Comparison of STA Design & Restudy | EAA Runoff - By Basin | BMP Performance: 51% (1995-1997) | 1965-1995 | 07/16/98

Conceptual Design (WY 1979-1988)

	Without IAP & Makeup			With IAP & Makeup		
	Flow	Load	Conc	Flow	Load	Conc
S5A	187.5	48.6	210	188.9	48.7	209
S6	131.4	23.1	143	155.4	28.8	150
S7	159.7	20.2	103	187.3	26.9	116
S8	187.8	47.1	203	213.2	52.1	198
S5A+S6	318.9	71.7	182	344.2	77.5	182
S7+S8	347.5	67.4	157	400.5	79.0	160
Backpump	117.6	26.5	183	39.2	9.1	188
Total	784.0	165.5	171	783.9	165.7	171

Restudy	50Base			ALT-A			ALT-B			ALT-C			ALT-D			A-D13R		
	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc
S5A+S6	397.9	61.3	125	356.3	56.7	129	358.1	56.8	129	359.5	57.0	129	375.3	59.9	129	375.4	60.0	129
S7+S8	406.7	46.4	92	396.4	45.3	92	399.9	45.6	92	401.3	45.8	92	402.7	46.0	92	402.8	46.0	92
Backpump	32.6	7.2	179	10.5	2.4	182	0.9	0.2	176	0.9	0.2	174	0.9	0.2	174	0.8	0.2	173
Total	837.2	114.9	111	763.3	104.3	111	758.9	102.7	110	761.7	103.0	110	778.9	106.1	110	779.1	106.1	110

Comparison of STA Design & Restudy | STA & Res. Inflow Sources | BMP Performance: 51% (1995-1997) | 1965-1995 | 07/16/98

Conceptual Design (WY 1979-1988)

	Without IAP & Makeup			With IAP & Makeup			ECP - Historical Inflows		
	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc
EAA	666.4	139.0	169	744.7	156.6	170	883.3	195.8	180
Lake	257.6	22.7	71	364.9	32.0	71	21.2	2.3	86
C139	114.5	34.3	243	114.5	34.3	243	114.5	34.3	243
298	24.9	6.1	199	24.9	6.1	199	0.0	0.0	0
C51W	105.4	24.1	185	105.4	24.1	185	4.9	0.9	149
L8	0.0	0.0	0	0.0	0.0	0	50.7	3.5	56
Total Inflow	1168.7	226.2	157	1354.4	253.0	151	1074.6	236.8	179

Restudy	50Base			ALT-A			ALT-B			ALT-C			ALT-D			A-D13R		
	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc
EAA	803.5	107.6	108	750.4	101.6	110	756.8	102.3	110	759.4	102.7	110	776.3	105.7	110	776.2	105.7	110
Lake	275.6	22.8	67	566.0	46.6	67	613.4	51.4	68	545.5	45.9	68	551.7	46.4	68	532.5	44.4	68
C139	142.7	40.5	230	143.7	40.7	229	144.1	40.8	229	143.7	40.7	229	143.7	40.7	229	143.7	40.7	229
298	21.1	4.5	172	21.8	4.3	161	24.2	4.7	157	24.0	4.7	158	24.0	4.7	158	24.1	4.7	158
C51W	114.4	26.1	185	122.2	27.9	185	122.5	28.0	185	122.4	28.0	185	120.2	27.4	185	120.1	27.4	185
Total Inflow	1357.2	201.5	120	1604.0	221.2	112	1660.9	227.1	111	1595.1	222.0	113	1615.9	224.9	113	1596.6	222.9	113

Comparison of STA Design & Restudy Outflow Destinations BMP Performance: 51% (1995-1997) 1965-1995 07/16/98
Conceptual Design (WY 1979-1988)

	Without IAP & Makeup			With IAP & Makeup			ECP - Historical flows		
STA	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc
WCA-1	270.8	16.6	50	296.6	18.7	51	472.5	105.6	181
WCA-2A	176.3	10.8	50	216.6	15.7	59	229.0	30.5	108
WCA-3A	627.3	38.9	50	746.9	51.8	56	373.0	100.7	219
EAA	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0
Rotenb.	105.0	9.6	74	105.0	9.6	74	0.0	0.0	0
Holeyland	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0
Seminoles	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0
C51W	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0
Total	1179.4	75.9	52	1365.0	95.8	57	1074.6	236.8	179

Restudy	50Base			ALT-A			ALT-B			ALT-C			ALT-D			A-D13R		
	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc
WCA-1	284.6	15.1	42.9	297.9	16.7	45.4	297.4	16.7	45.4	298.2	16.7	45.5	307.4	17.9	47.3	307.4	17.9	47.2
WCA-2A	292.1	17.2	47.6	274.8	15.0	44.3	306.7	17.6	46.5	308.9	18.0	47.2	312.7	18.3	47.4	279.9	15.6	45.2
WCA-3A	628.7	29.9	38.5	662.9	28.1	34.4	690.9	30.9	36.2	637.4	28.1	35.7	641.3	28.2	35.7	655.4	29.1	36.0
EAA	0.0	0.0	0.0	145.6	12.1	67.6	144.1	12.0	67.5	146.7	12.1	67.0	148.1	12.2	66.8	146.9	12.1	66.8
Rotenb.	128.9	14.2	89.0	156.0	17.4	90.3	156.1	17.4	90.3	156.3	17.4	90.3	156.4	17.5	90.4	156.3	17.4	90.3
Holeyland	0.0	0.0	0.0	2.6	0.1	34.2	2.3	0.1	36.1	2.5	0.1	35.6	2.6	0.1	35.6	2.7	0.1	35.9
Seminoles	1.1	0.0	33.4	1.5	0.1	33.7	1.4	0.1	33.6	1.5	0.1	33.7	1.5	0.1	33.2	1.5	0.1	33.2
C51W	0.1	0.0	42.3	0.0	0.0	46.1	0.0	0.0	46.3	0.0	0.0	46.3	0.0	0.0	44.9	0.0	0.0	44.9
Total	1335.4	76.3	46.3	1541.3	89.5	47.1	1599.0	94.7	48.0	1551.6	92.5	48.3	1570.0	94.3	48.6	1550.0	92.4	48.3

Comparison of STA Design & Restudy | Net Reduction (In - Out) | BMP Performance: 51% (1995-1997) | 1965-1995 | 07/16/98

Conceptual Design (WY 1979-1988)

	Without IAP & Makeup			With IAP & Makeup		
STA	Flow	Load	Conc	Flow	Load	Conc
STA-1E	-1.4	21.7	141	-1.4	21.9	137
STA1-W	-1.8	28.8	164	-1.8	28.7	143
STA-2	-1.7	23.0	107	-1.7	25.2	95
STA-34	-4.4	49.5	67	-4.4	54.1	61
STA-5	-1.1	24.0	188	-1.1	24.0	188
STA-6	-0.2	3.4	154	-0.2	3.4	133
Total	-10.6	150.3	105	-10.6	157.2	94

Restudy	50Base			ALT-A			ALT-B			ALT-C			ALT-D			A-D13R		
	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc	Flow	Load	Conc
STA-1E	-5.6	20.2	142	-5.7	21.0	138	-5.7	21.0	138	-5.7	21.0	138	-5.4	20.8	140	-5.4	20.8	140
STA1-W	-1.4	23.5	119	-1.3	24.0	117	-1.3	23.9	117	-1.3	24.0	117	-1.1	24.8	113	-1.1	24.9	113
STA-2	5.1	17.7	54	5.2	16.8	59	5.2	16.9	57	5.3	17.0	55	5.3	17.1	55	5.0	16.7	62
STA-34	19.1	37.5	45	18.5	31.9	35	18.8	33.1	34	19.2	33.8	38	19.1	33.7	37	19.5	33.7	37
STA-5	3.0	24.4	148	3.6	23.4	116	3.6	23.3	116	3.6	23.3	116	3.6	23.3	116	3.6	23.3	116
STA-6	1.5	1.9	63	2.0	2.1	62	1.9	2.1	62	1.8	2.1	63	1.9	2.1	63	1.9	2.1	63
Total	21.8	125.1	74	22.3	119.1	67	22.6	120.3	65	22.9	121.1	68	23.5	121.8	67	23.5	121.5	68