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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Ms. Magalie Roman Salas
Secretary
Federal Communications Commission
1919 M. St., NW, Room 222
Washington, D.C. 20554

RE: Ex Parte Presentation – Proxy Cost Models
CC Docket No. 96-45

Dear Ms. Salas:

The attached sheets provide some preliminary comparisons of cost and support results from the HAI Model 5.0a versus those from the BCPM 3.1. They focus on the twelve nonrural carriers operating in FL, GA, MD, MO and MT. These sheets display monthly costs and support levels (calculated at a wire center level of disaggregation, with all residence lines supported at $31/month and all business lines supported at $31/month) as reported by:

1. The HAI Model at its own national default input values;
2. The BCPM at its own national default input values;
3. The HAI Model and BCPM at the FCC's "common" input values;
4. The HAI at three sets of input values that, when inserted into the HAI Model, allow it to emulate the operation of the BCPM at the BCPM's own national default input values.

   - The first of these three sets inserts into the HAI Model BCPM-emulating input values for loop investments and expense items. These changes from the HAI national default input values are detailed on the attached HAI BCPMEmulate Inputs Sheet from the HAI Expense Module. No adjustments were made to the HAI Model to emulate BCPM switching, interoffice transport and signaling costs. In particular, to represent BCPM's use of fiber DLCs to serve all remote grids, no matter how tiny, BCPM's default cost of its small fiber DLC system was substituted for HAI T1 terminal expense; and the cost of a fiber cable was substituted for HAI's cost of copper road cables.
   - Because BCPM (due to its uniform national selection of a 500 foot buffer along roads to determine its actually served distribution area) builds distribution plant to less than half of the land area engineered to by the HAI Model, the second set of

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List A B C D E

BCPM-emulating runs employs a HAI Distribution Module that factors down the area of all HAI clusters by the ratio of land area engineered to by the BCPM to the land area engineered to by the HAI Model in that particular state. As can be seen, this reduction in HAI-served land areas to match the small amount of distribution areas actually engineered to by the BCPM reduces substantially the calculated monthly cost and support.

- The third set of runs adjusts the HAI-modeled feeder lengths further downward by reducing the route/air distance multiplier to 1, to match the BCPM's default practice of assuming that "beeline" cable runs are possible.

The HAI Model sponsors intend to supplement this record shortly as more comprehensive analyses become available. Two copies of this Notice are being submitted to the Secretary of the FCC in accordance with Section 1.1206(a)(2) of the Commission's rules.

Sincerely,

Chris Frentrup

Chris Frentrup

Attachments

cc: Sheryl Todd
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Monthly Cost of Basic Local Service

State	Study Area	@ Models' Own Default Inputs			@ FCC "Common" Inputs		
		HAI 5.0a @ HAI Default Input Values	BCPM 3.1 @ BCPM Default Input Values	BCPM Relative to HAI	HAI 5.0a @ FCC Common Input Values	BCPM 3.1 @ FCC Common Input Values	BCPM Relative to HAI
FL	Central Tel Co Of Florida	$23.94	$38.41	160%	$29.56	$29.73	101%
FL	Gte Floridainc	$14.93	$29.32	196%	$20.80	$23.90	115%
FL	Southern Bell-Fl	$15.02	$28.59	190%	$21.19	$23.60	111%
FL	United Tel Co Of Florida	$18.93	$35.54	188%	$25.01	$27.83	111%
GA	Alltel Georgia Communications Corp	$31.62	$50.55	160%	$37.47	$37.65	100%
GA	Southern Bell-Ga	$18.46	$33.64	182%	$24.26	$26.83	111%
MD	C And P Tel Co Of Md	$16.50	$28.23	171%	$22.76	$23.31	102%
MO	Contel Missouri Dba Gte Missouri	$40.68	$79.92	196%	$47.99	$56.71	118%
MO	Gte North Inc - Missouri	$30.25	$53.02	175%	$36.21	$39.35	109%
MO	Southwestern Bell-Missouri	$18.76	$34.32	183%	$25.02	$27.07	108%
MO	United Telephone Co Of Missouri	$33.44	$55.58	166%	$39.45	$41.12	104%
MT	Mountain Bell-Montana	$24.18	$59.71	247%	$31.11	$42.30	136%
	Unweighted Average	$23.89	$43.90	185%	$30.07	$33.28	111%

Monthly Cost of Basic Local Service

State	Study Area	@ Base Selection of BCPM Inputs		@ Base Plus Areas Reduced to Match BCPM Inputs			@ Base Plus Areas and R/A Reduced to Match BCPM Inputs		
		HAI 5.0a @ BCPM Default Input Values	BCPM Relative to HAI Emulation of BCPM	HAI 5.0a @ BCPM Default Input Values	Resulting Dollar Change from Base	BCPM Relative to HAI Emulation of BCPM	HAI 5.0a @ BCPM Default Input Values	Resulting Dollar Change from Base Plus Area Reduction	BCPM Relative to HAI Emulation of BCPM
FL	Central Tel Co Of Florida	$37.48	102%	$33.19	($4.28)	116%	$32.43	($0.77)	118%
FL	Gte Floridainc	$29.73	99%	$27.59	($2.13)	106%	$27.05	($0.55)	108%
FL	Southern Bell-Fl	$28.91	99%	$26.86	($2.05)	106%	$26.45	($0.41)	108%
FL	United Tel Co Of Florida	$34.10	104%	$30.95	($3.15)	115%	$30.51	($0.44)	117%
GA	Alltel Georgia Communications Corp	$56.17	90%	$46.36	($9.81)	109%	$45.55	($0.81)	111%
GA	Southern Bell-Ga	$34.58	97%	$30.52	($4.05)	110%	$30.10	($0.43)	112%
MD	C And P Tel Co Of Md	$29.93	94%	$27.52	($2.41)	103%	$26.96	($0.56)	105%
MO	Contel Missouri Dba Gte Missouri	$73.89	108%	$55.87	($18.02)	143%	$54.35	($1.53)	147%
MO	Gte North Inc - Missouri	$54.34	98%	$43.50	($10.85)	122%	$42.45	($1.05)	125%
MO	Southwestern Bell-Missouri	$34.69	99%	$29.98	($4.71)	114%	$29.39	($0.59)	117%
MO	United Telephone Co Of Missouri	$55.62	100%	$44.24	($11.38)	126%	$43.05	($1.18)	129%
MT	Mountain Bell-Montana	$48.17	124%	$45.08	($3.09)	132%	$44.10	($0.98)	135%
	Unweighted Average	$43.13	101%	$36.81	($6.33)	117%	$36.03	($0.77)	119%

Wire Center Disaggregation Annual Support @$31/$51*

State	Study Area	@ Models' Own Default Inputs			@ FCC "Common" Inputs		
		HAI 5.0a @ HAI Default Input Values**	BCPM 3.1 @ BCPM Default Input Values	BCPM Relative to HAI	HAI 5.0a @ FCC Common Input Values	BCPM 3.1 @ FCC Common Input Values	BCPM Relative to HAI
FL	Central Tel Co Of Florida	$16,524,972	$34,249,652	207%	$18,508,242	$14,520,396	78%
FL	Gte Floridainc	$3,244,155	$20,696,572	638%	$3,894,241	$4,256,293	109%
FL	Southern Bell-Fl	$17,808,654	$78,544,020	441%	$20,406,377	$19,244,532	94%
FL	United Tel Co Of Florida	$8,791,199	$73,960,541	841%	$14,398,354	$15,648,618	109%
GA	Alltel Georgia Communications Corp	$15,770,991	$59,481,929	377%	$21,685,737	$22,814,710	105%
GA	Southern Bell-Ga	$31,420,610	$157,014,868	500%	$40,332,410	$45,398,606	113%
MD	C And P Tel Co Of Md	$18,885,488	$62,122,691	329%	$26,095,078	$15,969,467	61%
MO	Contel Missouri Dba Gte Missouri	$37,993,319	$118,662,519	312%	$47,257,143	$63,278,358	134%
MO	Gte North Inc - Missouri	$10,573,668	$29,478,730	279%	$12,699,903	$14,964,470	118%
MO	Southwestern Bell-Missouri	$47,423,241	$136,951,368	289%	$52,531,427	$52,535,705	100%
MO	United Telephone Co Of Missouri	$20,583,861	$59,464,248	289%	$24,714,752	$27,879,543	113%
MT	Mountain Bell-Montana	$20,064,524	$95,399,362	475%	$23,871,303	$39,741,958	166%
	Sum/Unweighted Average	$249,084,681	$926,026,500	415%	$306,394,967	$336,252,656	108%

* In these comparisons, it is assumed that all residence lines are supported at $51/month and all business lines are supported at $51/month

** The true HAI default is only to provide support only for primary residence lines and single line business lines, not all lines as is reported here.

Wire Center Disaggregation Annual Support @$31/$51*

State	Study Area	@ Base Selection of BCPM Inputs		@ Base Plus Areas Reduced to Match BCPM Inputs			@ Base Plus Areas and R/A Reduced to Match BCPM Inputs		
		HAI 5.0a @ BCPM Default Input Values	BCPM Relative to HAI Emulation of BCPM	HAI 5.0a @ BCPM Default Input Values	Resulting Dollar Change from Base	BCPM Relative to HAI Emulation of BCPM	HAI 5.0a @ BCPM Default Input Values	Resulting Dollar Change from Base Plus Area Reduction	BCPM Relative to HAI Emulation of BCPM
FL	Central Tel Co Of Florida	$34,157,735	100%	$20,943,759	$ (13,213,976)	164%	$19,271,264	$ (1,672,495)	178%
FL	Gte Floridainc	$24,312,617	85%	$10,703,438	$ (13,609,179)	193%	$11,111,333	$ 407,895	186%
FL	Southern Bell-Fl	$79,134,679	99%	$45,697,973	$ (33,436,706)	172%	$37,692,021	$ (8,005,952)	208%
FL	United Tel Co Of Florida	$67,999,247	109%	$39,790,627	$ (28,208,620)	186%	$28,003,669	$ (11,786,958)	264%
GA	Alltel Georgia Communications Corp	$71,890,916	83%	$43,397,866	$ (28,493,050)	137%	$38,744,121	$ (4,653,745)	154%
GA	Southern Bell-Ga	$200,092,437	78%	$97,392,114	$(102,700,324)	161%	$72,191,088	$ (25,201,025)	217%
MD	C And P Tel Co Of Md	$82,926,465	75%	$44,070,928	$ (38,855,537)	141%	$42,548,243	$ (1,522,685)	146%
MO	Contel Missouri Dba Gte Missouri	$108,765,729	109%	$63,336,023	$ (45,429,705)	187%	$59,485,472	$ (3,850,552)	199%
MO	Gte North Inc - Missouri	$31,044,065	95%	$17,980,086	$ (13,063,979)	164%	$17,023,872	$ (956,213)	173%
MO	Southwestern Bell-Missouri	$142,940,934	96%	$73,295,391	$ (69,645,543)	187%	$67,095,535	$ (6,199,855)	204%
MO	United Telephone Co Of Missouri	$61,301,703	97%	$34,551,616	$ (26,750,087)	172%	$30,252,819	$ (4,298,797)	197%
MT	Mountain Bell-Montana	$68,693,992	139%	$58,976,790	$ (9,717,202)	162%	$49,953,392	$ (9,023,398)	191%
	Sum/Unweighted Average	$973,260,519	97%	$550,136,611	$(423,123,908)	169%	$473,372,830	$ (76,763,781)	193%

Comparison of Inputs: HAI5.0a Default vs HAI Emulation of BCPM

Distribution	Distribution Cable Fill - 0	55%	50%
Distribution	Distribution Cable Fill - 200	55%	60%
Distribution	Distribution Cable Fill - 650	55%	65%
Distribution	Distribution Cable Fill - 850	55%	70%
Distribution	Distribution Cable Fill - 2550	55%	75%
Distribution	Distribution Cable Fill - 5000	55%	75%
Distribution	Distribution Cable Fill - 10000	55%	75%
Distribution	Buried Fraction - 0	0.60	0.75
Distribution	Buried Fraction - 5	0.61	0.75
Distribution	Buried Fraction - 100	0.62	0.75
Distribution	Buried Fraction - 200	0.62	0.70
Distribution	Buried Fraction - 650	0.65	0.70
Distribution	Buried Fraction - 850	0.65	0.70
Distribution	Buried Fraction - 2550	0.55	0.65
Distribution	Buried Fraction - 10000	0.10	0.05
Distribution	Aerial Cable Fraction - 0	0.40	0.25
Distribution	Aerial Cable Fraction - 5	0.37	0.25
Distribution	Aerial Cable Fraction - 100	0.33	0.25
Distribution	Aerial Cable Fraction - 650	0.20	0.30
Distribution	Aerial Cable Fraction - 850	0.10	0.30
Distribution	Aerial Cable Fraction - 2550	0.05	0.30
Distribution	Aerial Cable Fraction - 5000	0.05	0.60
Distribution	Aerial Cable Fraction - 10000	-	0.85
Distribution	Pole Spacing, feet - 100	250	200
Distribution	Pole Spacing, feet - 200	250	200
Distribution	Pole Spacing, feet - 650	150	175
Distribution	Pole Spacing, feet - 850	150	175
Distribution	Drop Distance, feet - 0	500	150
Distribution	Drop Distance, feet - 5	500	150
Distribution	Drop Distance, feet - 100	348	100
Distribution	Drop Distance, feet - 200	206	100
Distribution	Drop Distance, feet - 650	155	50
Distribution	Drop Distance, feet - 850	103	50
Distribution	Drop Distance, feet - 2550	69	50
Distribution	Drop Distance, feet - 5000	49	50
Distribution	Drop Distance, feet - 10000	35	50
Distribution	Aerial Drop Placement (total) - 0	385	23.33
Distribution	Aerial Drop Placement (total) - 5	385	23.33
Distribution	Aerial Drop Placement (total) - 100	267.96	17.5
Distribution	Aerial Drop Placement (total) - 200	158.62	17.5
Distribution	Aerial Drop Placement (total) - 650	119.35	11.67
Distribution	Aerial Drop Placement (total) - 850	79.31	11.67
Distribution	Aerial Drop Placement (total) - 2550	53.13	11.67
Distribution	Aerial Drop Placement (total) - 5000	37.73	11.67
Distribution	Aerial Drop Placement (total) - 10000	26.95	11.67
Distribution	Buried Drop Placement (total) - 0	0.77	0.6
Distribution	Buried Drop Placement (total) - 5	0.77	0.6
Distribution	Buried Drop Placement (total) - 100	0.77	0.6
Distribution	Buried Drop Placement (total) - 200	0.77	0.6
Distribution	Buried Drop Placement (total) - 650	0.77	0.6
Distribution	Buried Drop Placement (total) - 850	0.77	0.6
Distribution	Buried Drop Placement (total) - 2550	0.77	0.75
Distribution	Buried Drop Placement (total) - 5000	0.77	1.5
Distribution	Buried Drop Placement (total) - 10000	0.77	5
Distribution	Buried Drop Sharing Fraction - 0	1	0.5
Distribution	Buried Drop Sharing Fraction - 5	1	0.5
Distribution	Buried Drop Sharing Fraction - 100	1	0.5
Distribution	Buried Drop Sharing Fraction - 200	1	0.5
Distribution	Buried Drop Sharing Fraction - 650	1	0.5
Distribution	Buried Drop Sharing Fraction - 850	1	0.5
Distribution	Buried Drop Sharing Fraction - 2550	1	0.5
Distribution	Buried Drop Sharing Fraction - 5000	1	0.5
Distribution	Buried Drop Sharing Fraction - 10000	1	0.5
Distribution	Buried Drop Fraction - 0	0.6	0.75
Distribution	Buried Drop Fraction - 5	0.61	0.75
Distribution	Buried Drop Fraction - 100	0.6	0.75
Distribution	Buried Drop Fraction - 200	0.62	0.7
Distribution	Buried Drop Fraction - 650	0.65	0.7

Comparison of Inputs: HAI5.0a Default vs HAI Emulation of BCPM

Distribution	Buried Drop Fraction - 850		0.65		0.7
Distribution	Buried Drop Fraction - 2550		0.55		0.7
Distribution	Buried Drop Fraction - 5000		0.35		0.4
Distribution	Buried Drop Fraction - 10000		0.1		0.15
Distribution	Pole Investment	$	379.50	$	201.00
Distribution	Pole Labor	$	401.08	$	216.00
Distribution	Buried Cable Jacketing Multiplier		1.01		1.04
Distribution	Conduit Investment per foot	$	0.83	$	0.60
Distribution	Spare Tubes per route		0		1
Distribution	Residential NID case, no protector	$	30.73	$	10.00
Distribution	Residential NID basic labor	$	-	$	15.00
Distribution	Residential Protection Block, per pair	$	-	$	4.00
Distribution	Business NID case, no protector	$	30.73	$	25.00
Distribution	Business NID basic labor	$	-	$	15.00
Distribution	Business Protection Block, per pair	$	-	$	4.00
Distribution	Average Lines per business location		6		4
Distribution	Terminal and Splice per line, buried	$	100.50	$	42.50
Distribution	Terminal and Splice per line, aerial	$	44.98	$	32.00
Distribution	Drop cable investment per foot buried	$	-	$	0.14
Distribution	Drop cable investment per foot aerial	$	-	$	0.10
Distribution	Indoor NID case	$	30.73	$	5.00
Distribution	Buried fraction available for shift - 0		0		0.75
Distribution	Buried fraction available for shift - 5		0		0.75
Distribution	Buried fraction available for shift - 100		0		0.75
Distribution	Buried fraction available for shift - 200		0		0.75
Distribution	Buried fraction available for shift - 650		0		0.75
Distribution	Buried fraction available for shift - 850		0		0.75
Distribution	Buried fraction available for shift - 2550		0		0.75
Distribution	Wireless Point to Point Inv cap - distribution, per line	$	10,000.00	$	7,500.00
Distribution	Wireless Common inv, broadcast	$	-	$	112,500.00
Distribution	Wireless per line inv, broadcast	$	-	$	500.00
Distribution	Maximum broadcast lines for common inv	$	-	$	30.00
Distribution	TR-303 DLC Site and Power	$	-	$	3,000.00
Distribution	TR-303 DLC RT Fill Factor		0.85		0.9
Distribution	TR-303 DLC Basic Common Eqpt Invest + initial lines	$	90,553.00	$	66,000.00
Distribution	TR-303 DLC POTS Channel Unit Investment	$	418.76	$	310.00
Distribution	TR-303 DLC Coin Channel Unit Investment	$	712.88	$	250.00
Distribution	TR-303 DLC 303/LD crossover, lines		240		480
Distribution	TR-303 DLC Optical Patch Panel	$	-	$	1,000.00
Distribution	TR-303 DLC Common Eqpt Invest per additional 672 lines	$	28,482.00	$	18,500.00
Distribution	TR-303 DLC Maximum Number of additional line modules/RT	$	1.00	$	2.00
Distribution	Low Density DLC Site and Power	$	-	$	1,300.00
Distribution	Low Density DLC RT Fill Factor		0.85		0.9
Distribution	Low Density DLC Basic Common Eqpt Invest + initial lines	$	37,079.27	$	16,000.00
Distribution	Low Density DLC POTS Channel Unit Investment	$	675.24	$	600.00
Distribution	Low Density DLC Coin Channel Unit Investment	$	564.00	$	600.00
Distribution	Low Density DLC Optical Patch Panel	$	-	$	1,000.00
Distribution	Low Density DLC Common Eqpt Invest per additional 96 lines	$	16,564.82	$	9,400.00
Distribution	Distribution Cable Size 1		3600		2400
Distribution	Distribution Cable Size 2		2400		1800
Distribution	Distribution Cable Size 3		1800		1200
Distribution	Distribution Cable Size 4		1200		900
Distribution	Distribution Cable Size 5		900		600
Distribution	Distribution Cable Size 6		600		400
Distribution	Distribution Cable Size 7		400		200
Distribution	Distribution Cable Size 8		200		100
Distribution	Distribution Cable Size 9		100		50
Distribution	Distribution Cable Size 10		50		25
Distribution	Distribution Cable Size 11		25		12
Distribution	Distribution Cable Size 12		12		6
Distribution	Distribution Cable Investment per foot 1	$	33.66	$	20.00
Distribution	Distribution Cable Investment per foot 2	$	23.88	$	16.00
Distribution	Distribution Cable Investment per foot 3	$	18.33	$	12.00
Distribution	Distribution Cable Investment per foot 4	$	12.37	$	10.00
Distribution	Distribution Cable Investment per foot 5	$	9.92	$	7.75
Distribution	Distribution Cable Investment per foot 6	$	7.37	$	6.00
Distribution	Distribution Cable Investment per foot 7	$	6.07	$	4.25
Distribution	Distribution Cable Investment per foot 8	$	4.39	$	2.50
Distribution	Distribution Cable Investment per foot 9	$	3.15	$	1.63

Comparison of Inputs: HAI5.0a Default vs HAI Emulation of BCPM

Distribution	Distribution Cable Investment per foot 10	$	2.47	$	1.19
Distribution	Distribution Cable Investment per foot 11	$	2.01	$	0.76
Distribution	Distribution Cable Investment per foot 12	$	1.97	$	0.63
Distribution	Distribution Riser Cable Size 1		3600		2400
Distribution	Distribution Riser Cable Size 2		2400		1800
Distribution	Distribution Riser Cable Size 3		1800		1200
Distribution	Distribution Riser Cable Size 4		1200		900
Distribution	Distribution Riser Cable Size 5		900		600
Distribution	Distribution Riser Cable Size 6		600		400
Distribution	Distribution Riser Cable Size 7		400		200
Distribution	Distribution Riser Cable Size 8		200		100
Distribution	Distribution Riser Cable Size 9		100		50
Distribution	Distribution Riser Cable Size 10		50		25
Distribution	Distribution Riser Cable Size 11		25		12
Distribution	Distribution Riser Cable Size 12		12		6
Distribution	Distribution Riser Cable Investment per foot 1	$	33.66	$	25.00
Distribution	Distribution Riser Cable Investment per foot 2	$	23.88	$	20.00
Distribution	Distribution Riser Cable Investment per foot 3	$	18.33	$	15.00
Distribution	Distribution Riser Cable Investment per foot 4	$	12.37	$	12.50
Distribution	Distribution Riser Cable Investment per foot 5	$	9.92	$	10.00
Distribution	Distribution Riser Cable Investment per foot 6	$	7.37	$	7.50
Distribution	Distribution Riser Cable Investment per foot 7	$	6.07	$	5.30
Distribution	Distribution Riser Cable Investment per foot 8	$	4.39	$	3.15
Distribution	Distribution Riser Cable Investment per foot 9	$	3.15	$	2.05
Distribution	Distribution Riser Cable Investment per foot 10	$	2.47	$	1.50
Distribution	Distribution Riser Cable Investment per foot 11	$	2.01	$	0.95
Distribution	Distribution Riser Cable Investment per foot 12	$	1.97	$	0.80
Distribution	Rock Depth Threshold, inches		36		24
Distribution	Hard Rock Placement Multiplier		1.76		3.5
Distribution	Soft Rock Placement Multiplier		1.28		2
Distribution	Sidewalk/Street Fraction		0		0.2
Distribution	Local RT - Maximum Total Distance		12,000		18,000
Distribution	SAI Cable Size 1		4,200		7,200
Distribution	SAI Cable Size 2		3,600		5,400
Distribution	SAI Cable Size 3		3,000		3,600
Distribution	SAI Indoor Investment 1	$	23,362.42	$	9,656.00
Distribution	SAI Indoor Investment 2	$	19,605.42	$	7,392.00
Distribution	SAI Indoor Investment 3	$	16,669.77	$	4,928.00
Distribution	SAI Indoor Investment 4	$	13,559.71	$	3,352.00
Distribution	SAI Indoor Investment 5	$	8,658.36	$	2,464.00
Distribution	SAI Indoor Investment 6	$	6,867.06	$	1,776.00
Distribution	SAI Indoor Investment 7	$	4,901.36	$	1,232.00
Distribution	SAI Indoor Investment 8	$	3,757.00	$	888.00
Distribution	SAI Indoor Investment 9	$	2,324.03	$	592.00
Distribution	SAI Indoor Investment 10	$	1,293.09	$	296.00
Distribution	SAI Indoor Investment 11	$	811.60	$	148.00
Distribution	SAI Indoor Investment 12	$	509.43	$	98.00
Distribution	SAI Outdoor Investment 1	$	16,398.20	$	10,000.00
Distribution	SAI Outdoor Investment 2	$	14,055.60	$	8,200.00
Distribution	SAI Outdoor Investment 3	$	11,713.00	$	6,000.00
Distribution	SAI Outdoor Investment 4	$	11,490.00	$	4,300.00
Distribution	SAI Outdoor Investment 5	$	8,717.00	$	3,400.00
Distribution	SAI Outdoor Investment 6	$	7,586.00	$	2,400.00
Distribution	SAI Outdoor Investment 7	$	6,848.00	$	1,900.00
Distribution	SAI Outdoor Investment 8	$	5,509.00	$	1,400.00
Distribution	SAI Outdoor Investment 9	$	2,590.00	$	1,000.00
Distribution	SAI Outdoor Investment 10	$	2,120.00	$	600.00
Distribution	SAI Outdoor Investment 11	$	1,885.00	$	350.00
Distribution	SAI Outdoor Investment 12	$	407.00	$	250.00
Distribution	Repeater Investment, installed	$	-	$	527.00
Distribution	Integrated COT, installed	$	-	$	420.00
Distribution	Remote Multiplexer Common Equip Inv, installed	$	19,120.17	$	8,200.00
Distribution	Channel Unit Investment, per subscriber	$	112.54	$	125.00
Distribution	COT investment per RT, installed	$	11,268.16	$	1,170.00
Distribution	Remote Terminal fill factor		0.85		0.9
Distribution	Maximum T1s per cable		999		8
Distribution	Aerial T1 attenuation, dB/kft		0.1		6.3
Distribution	Buried T1 attenuation, dB/kft		0.1		5
Distribution	Feeder steering enable		TRUE		FALSE

Comparison of Inputs: HAI5.0a Default vs HAI Emulation of BCPM

Distribution	Main feeder route/air multiplier -- only set to this value in 3rd run		1		1.27
Distribution	Rectangular cluster switch		TRUE		FALSE
Feeder	Copper Feeder Fill - 0		75%		65%
Feeder	Copper Feeder Fill - 5		80%		75%
Feeder	Copper Feeder Fill - 200		85%		80%
Feeder	Copper Feeder Fill - 650		85%		80%
Feeder	Copper Feeder Fill - 850		85%		80%
Feeder	Copper Feeder Fill - 2550		85%		80%
Feeder	Copper Feeder Fill - 5000		85%		80%
Feeder	Copper Feeder Fill - 10000		85%		80%
Feeder	Copper Aerial Fraction - 0		0.4		0.5
Feeder	Copper Aerial Fraction - 5		0.4		0.5
Feeder	Copper Aerial Fraction - 100		0.4		0.5
Feeder	Copper Aerial Fraction - 650		0.25		0.3
Feeder	Copper Aerial Fraction - 850		0.1		0.2
Feeder	Copper Aerial Fraction - 2550		0		0.15
Feeder	Copper Aerial Fraction - 5000		0		0.1
Feeder	Copper Aerial Fraction - 10000		0		0.05
Feeder	Copper Buried Fraction - 0		0.5		0.45
Feeder	Copper Buried Fraction - 100		0.4		0.45
Feeder	Copper Buried Fraction - 200		0.35		0.4
Feeder	Copper Buried Fraction - 850		0.25		0.2
Feeder	Copper Buried Fraction - 2550		0.2		0.1
Feeder	Copper Buried Fraction - 5000		0.1		0.05
Feeder	Copper Manhole Spacing, feet - 0		725		800
Feeder	Copper Manhole Spacing, feet - 5		725		800
Feeder	Copper Manhole Spacing, feet - 100		725		800
Feeder	Copper Manhole Spacing, feet - 200		725		800
Feeder	Copper Manhole Spacing, feet - 650		550		600
Feeder	Copper Manhole Spacing, feet - 850		550		600
Feeder	Copper Manhole Spacing, feet - 2550		550		600
Feeder	Copper Manhole Spacing, feet - 5000		550		400
Feeder	Copper Manhole Spacing, feet - 10000		550		400
Feeder	Fiber Aerial Fraction - 0		0.4		0.35
Feeder	Fiber Aerial Fraction - 5		0.4		0.35
Feeder	Fiber Aerial Fraction - 100		0.4		0.35
Feeder	Fiber Aerial Fraction - 200		0.4		0.3
Feeder	Fiber Aerial Fraction - 650		0.25		0.3
Feeder	Fiber Aerial Fraction - 850		0.1		0.2
Feeder	Fiber Aerial Fraction - 2550		0		0.15
Feeder	Fiber Aerial Fraction - 5000		0		0.1
Feeder	Fiber Aerial Fraction - 10000		0		0.05
Feeder	Fiber Buried Fraction - 0		0.5		0.6
Feeder	Fiber Buried Fraction - 5		0.45		0.6
Feeder	Fiber Buried Fraction - 100		0.4		0.6
Feeder	Fiber Buried Fraction - 200		0.35		0.6
Feeder	Fiber Buried Fraction - 850		0.25		0.2
Feeder	Fiber Buried Fraction - 2550		0.2		0.1
Feeder	Fiber Buried Fraction - 5000		0.1		0.05
Feeder	Fiber Pullbox Spacing, feet - 0		725		2000
Feeder	Fiber Pullbox Spacing, feet - 5		725		2000
Feeder	Fiber Pullbox Spacing, feet - 100		725		2000
Feeder	Fiber Pullbox Spacing, feet - 200		725		2000
Feeder	Fiber Pullbox Spacing, feet - 650		550		2000
Feeder	Fiber Pullbox Spacing, feet - 850		550		2000
Feeder	Fiber Pullbox Spacing, feet - 2550		550		2000
Feeder	Fiber Pullbox Spacing, feet - 5000		550		2000
Feeder	Fiber Pullbox Spacing, feet - 10000		550		2000
Feeder	Fiber Feeder Investment per foot - 216	$	11.07	$	13.10
Feeder	Fiber Feeder Investment per foot - 144	$	10.04	$	9.50
Feeder	Fiber Feeder Investment per foot - 96	$	7.34	$	7.10
Feeder	Fiber Feeder Investment per foot - 72	$	6.33	$	5.90
Feeder	Fiber Feeder Investment per foot - 60	$	5.56	$	5.30
Feeder	Fiber Feeder Investment per foot - 48	$	4.99	$	4.70
Feeder	Fiber Feeder Investment per foot - 36	$	4.28	$	4.10
Feeder	Fiber Feeder Investment per foot - 24	$	3.71	$	3.50
Feeder	Fiber Feeder Investment per foot - 18	$	3.33	$	3.20
Feeder	Fiber Feeder Investment per foot - 12	$	2.96	$	2.90
Feeder	Copper Feeder Investment per foot - 4200	$	36.39	$	29.00

Comparison of Inputs: HAI5.0a Default vs HAI Emulation of BCPM

Feeder	Copper Feeder Investment per foot - 3600	$	33.68	$	26.00
Feeder	Copper Feeder Investment per foot - 3000	$	30.79	$	23.00
Feeder	Copper Feeder Investment per foot - 2400	$	23.88	$	20.00
Feeder	Copper Feeder Investment per foot - 1800	$	18.33	$	18.00
Feeder	Copper Feeder Investment per foot - 1200	$	12.37	$	12.00
Feeder	Copper Feeder Investment per foot - 900	$	9.92	$	10.00
Feeder	Copper Feeder Investment per foot - 600	$	7.37	$	7.75
Feeder	Copper Feeder Investment per foot - 400	$	6.07	$	6.00
Feeder	Copper Feeder Investment per foot - 200	$	4.39	$	4.25
Feeder	Copper Feeder Investment per foot - 100	$	3.15	$	2.50
Feeder	Buried Copper Cable Sheath Multiplier		1.01		1.04
Feeder	Buried Fiber Sheath Addition per foot	$	-	$	0.20
Feeder	Pole Materials	$	379.50	$	201.00
Feeder	Pole Labor	$	401.08	$	218.00
Feeder	Conduit Material Investment per foot	$	0.83	$	0.60
Feeder	Inner Duct Investment per foot	$	0.83	$	0.30
Feeder	Spare Tubes per section		0		1
Feeder	Pole Spacing, feet - 100		250		200
Feeder	Pole Spacing, feet - 200		250		200
Feeder	Pole Spacing, feet - 650		150		175
Feeder	Pole Spacing, feet - 850		150		175
Feeder	Buried fraction available for shift - 0		0		0.75
Feeder	Buried fraction available for shift - 5		0		0.75
Feeder	Buried fraction available for shift - 100		0		0.75
Feeder	Buried fraction available for shift - 200		0		0.75
Feeder	Buried fraction available for shift - 650		0		0.75
Feeder	Buried fraction available for shift - 850		0		0.75
Feeder	Buried fraction available for shift - 2550		0		0.75
Feeder	Buried fraction available for shift - 5000		0		0.75
Feeder	Buried fraction available for shift - 10000		0		0.75
Feeder	Fiber investment/strand - foot	$	99,999.00	$	0.10
Feeder	Copper investment/pair - foot	$	0.00	$	0.01
Feeder	Copper Manhole Materials - 0	$	2,567.20	$	1,865.00
Feeder	Copper Manhole Materials - 5	$	2,567.20	$	1,865.00
Feeder	Copper Manhole Materials - 100	$	2,567.20	$	1,865.00
Feeder	Copper Manhole Materials - 200	$	2,567.20	$	1,865.00
Feeder	Copper Manhole Materials - 650	$	2,567.20	$	1,865.00
Feeder	Copper Manhole Materials - 850	$	2,567.20	$	1,865.00
Feeder	Copper Manhole Materials - 2550	$	2,567.20	$	1,865.00
Feeder	Copper Manhole Materials - 5000	$	2,567.20	$	1,865.00
Feeder	Copper Manhole Materials - 10000	$	2,567.20	$	1,865.00
Feeder	Copper Manhole Frame and Cover - 0	$	-	$	350.00
Feeder	Copper Manhole Frame and Cover - 5	$	-	$	350.00
Feeder	Copper Manhole Frame and Cover - 100	$	-	$	350.00
Feeder	Copper Manhole Frame and Cover - 200	$	-	$	350.00
Feeder	Copper Manhole Frame and Cover - 650	$	-	$	350.00
Feeder	Copper Manhole Frame and Cover - 850	$	-	$	350.00
Feeder	Copper Manhole Frame and Cover - 2550	$	-	$	350.00
Feeder	Copper Manhole Frame and Cover - 5000	$	-	$	350.00
Feeder	Copper Manhole Frame and Cover - 10000	$	-	$	350.00
Feeder	Copper Manhole Site Delivery - 0	$	-	$	125.00
Feeder	Copper Manhole Site Delivery - 5	$	-	$	125.00
Feeder	Copper Manhole Site Delivery - 100	$	-	$	125.00
Feeder	Copper Manhole Site Delivery - 200	$	-	$	125.00
Feeder	Copper Manhole Site Delivery - 650	$	-	$	125.00
Feeder	Copper Manhole Site Delivery - 850	$	-	$	125.00
Feeder	Copper Manhole Site Delivery - 2550	$	-	$	125.00
Feeder	Copper Manhole Site Delivery - 5000	$	-	$	125.00
Feeder	Copper Manhole Site Delivery - 10000	$	-	$	125.00
Feeder	Copper Manhole Excavate and Backfill - 0	$	1,944.80	$	2,800.00
Feeder	Copper Manhole Excavate and Backfill - 5	$	1,944.80	$	2,800.00
Feeder	Copper Manhole Excavate and Backfill - 100	$	1,944.80	$	2,800.00
Feeder	Copper Manhole Excavate and Backfill - 200	$	1,944.50	$	2,800.00
Feeder	Copper Manhole Excavate and Backfill - 650	$	1,944.80	$	3,200.00
Feeder	Copper Manhole Excavate and Backfill - 850	$	1,944.80	$	3,500.00
Feeder	Copper Manhole Excavate and Backfill - 2550	$	1,944.80	$	3,500.00
Feeder	Copper Manhole Excavate and Backfill - 5000	$	1,944.80	$	5,000.00
Feeder	Copper Manhole Excavate and Backfill - 10000	$	1,944.80	$	5,000.00
Feeder	Fiber Pullbox Materials - 0	$	708.00	$	280.00

Comparison of Inputs: HAI5.0a Default vs HAI Emulation of BCPM

Feeder	Fiber Pullbox Materials - 5	$	708.00	$	280.00
Feeder	Fiber Pullbox Materials - 100	$	708.00	$	280.00
Feeder	Fiber Pullbox Materials - 200	$	708.00	$	280.00
Feeder	Fiber Pullbox Materials - 650	$	708.00	$	280.00
Feeder	Fiber Pullbox Materials - 850	$	708.00	$	280.00
Feeder	Fiber Pullbox Materials - 2550	$	708.00	$	280.00
Feeder	Fiber Pullbox Materials - 5000	$	708.00	$	280.00
Feeder	Fiber Pullbox Materials - 10000	$	708.00	$	280.00
Feeder	Fiber Pullbox Installation - 0	$	300.00	$	220.00
Feeder	Fiber Pullbox Installation - 5	$	300.00	$	220.00
Feeder	Fiber Pullbox Installation - 100	$	300.00	$	220.00
Feeder	Fiber Pullbox Installation - 200	$	300.00	$	220.00
Feeder	Fiber Pullbox Installation - 650	$	300.00	$	220.00
Feeder	Fiber Pullbox Installation - 850	$	300.00	$	220.00
Feeder	Fiber Pullbox Installation - 2550	$	300.00	$	220.00
Feeder	Fiber Pullbox Installation - 5000	$	300.00	$	220.00
Feeder	Fiber Pullbox Installation - 10000	$	300.00	$	220.00
Feeder	Dewatering factor manhole excavation (additive)		0.3		0.2
Feeder	Water table depth for dewatering, ft		3		5
Switching	Local Call Attempts		945,196		0
Switching	Call Completion Factor		0.7		0
Switching	IntraLATA Calls Completed		40,523		0
Switching	InterLATA intrastate Calls Completed		32,447		0
Switching	InterLATA interstate Calls Completed		117,591		0
Switching	Local DEMs, thousands		3,922,893		0
Switching	Intrastate DEMs, thousands		779,106		0
Switching	Interstate DEMs, thousands		1,338,000		0
Expense	Cost of Debt		7.8%		7.7%
Expense	Debt Fraction		32.8%		45.0%
Expense	Cost of Equity		13.1%		11.9%
Expense	Tax Rate		38.4%		39.3%
Expense	Corporate Overhead Factor		0.0%		10.4%
Expense	Other Taxes Factor		0.0%		5.0%
Expense	Billing/Bill Inquiry per line per month	$	12.75	$	1.22
Expense	Forward-looking Network Operations Factor		0		0.5
Expense	Monthly LNP cost, per line	$	-	$	0.25
Expense	NID Expense per line per year	$	-	$	1.00
Expense	Distribution Aerial Shring Fraction - 0		0.4532		0.5
Expense	Distribution Aerial Shring Fraction - 5		0.4532		0.33
Expense	Distribution Aerial Shring Fraction - 100		0.4532		0.25
Expense	Distribution Aerial Shring Fraction - 200		0.4532		0.25
Expense	Distribution Aerial Shring Fraction - 650		0.4474		0.25
Expense	Distribution Aerial Shring Fraction - 850		0.5		0.25
Expense	Distribution Aerial Shring Fraction - 2550		0.5		0.25
Expense	Distribution Aerial Shring Fraction - 5000		0.5		0.25
Expense	Distribution Aerial Shring Fraction - 10000		0.5		0.25
Expense	Distribution Buried Shring Fraction - 0		1		0.33
Expense	Distribution Buried Shring Fraction - 5		1		0.33
Expense	Distribution Buried Shring Fraction - 100		1		0.33
Expense	Distribution Buried Shring Fraction - 200		1		0.33
Expense	Distribution Buried Shring Fraction - 650		1		0.33
Expense	Distribution Buried Shring Fraction - 850		1		0.33
Expense	Distribution Buried Shring Fraction - 2550		1		0.33
Expense	Distribution Buried Shring Fraction - 5000		1		0.33
Expense	Distribution Buried Shring Fraction - 10000		1		0.33
Expense	Distribution Underground Shring Fraction - 5		1		0.5
Expense	Distribution Underground Shring Fraction - 100		1		0.5
Expense	Distribution Underground Shring Fraction - 200		1		0.5
Expense	Distribution Underground Shring Fraction - 650		1		0.4
Expense	Distribution Underground Shring Fraction - 850		1		0.33
Expense	Distribution Underground Shring Fraction - 2550		1		0.33
Expense	Distribution Underground Shring Fraction - 5000		1		0.33
Expense	Distribution Underground Shring Fraction - 10000		1		0.33
Expense	Feeder Aerial Shring Fraction - 0		0.4532		0.5
Expense	Feeder Aerial Shring Fraction - 5		0.4532		0.33
Expense	Feeder Aerial Shring Fraction - 100		0.4532		0.25
Expense	Feeder Aerial Shring Fraction - 200		0.4532		0.25
Expense	Feeder Aerial Shring Fraction - 650		0.4474		0.25
Expense	Feeder Aerial Shring Fraction - 850		0.5		0.25

Comparison of Inputs: HAI5.0a Default vs HAI Emulation of BCPM

Expense	Feeder Aerial Shring Fraction - 2550	0.5	0.25
Expense	Feeder Aerial Shring Fraction - 5000	0.5	0.25
Expense	Feeder Aerial Shring Fraction - 10000	0.5	0.25
Expense	Feeder Underground Shring Fraction - 0	1	0.5
Expense	Feeder Underground Shring Fraction - 5	1	0.5
Expense	Feeder Underground Shring Fraction - 100	1	0.4
Expense	Feeder Underground Shring Fraction - 200	1	0.33
Expense	Feeder Underground Shring Fraction - 650	1	0.33
Expense	Feeder Underground Shring Fraction - 850	1	0.33
Expense	Feeder Underground Shring Fraction - 2550	1	0.33
Expense	Feeder Underground Shring Fraction - 5000	1	0.33
Expense	Feeder Underground Shring Fraction - 10000	1	0.33
Expense	Feeder Buried Shring Fraction - 0	1	0.4
Expense	Feeder Buried Shring Fraction - 5	1	0.4
Expense	Feeder Buried Shring Fraction - 100	1	0.4
Expense	Feeder Buried Shring Fraction - 200	1	0.4
Expense	Feeder Buried Shring Fraction - 650	1	0.4
Expense	Feeder Buried Shring Fraction - 850	1	0.4
Expense	Feeder Buried Shring Fraction - 2550	1	0.4
Expense	Feeder Buried Shring Fraction - 5000	1	0.4
Expense	Feeder Buried Shring Fraction - 10000	1	0.4
Expense	Motor Vehicles - Economic Life	8	8.24
Expense	Garage Work Equipment - Economic Life	12	12.22
Expense	Other Work Equipment - Economic Life	14	13.04
Expense	Buildings - Economic Life	42.5	46.93
Expense	Furniture - Economic Life	16	15.92
Expense	Office Support Equipment - Economic Life	11	10.78
Expense	General Purpose Computer - Economic Life	5.5	6.12
Expense	Digital Electronic Switching - Economic Life	10	16.17
Expense	Digital Circuit Equipment - Economic Life	8.5	10.24
Expense	Poles - Economic Life	30	30.25
Expense	Aerial Cable - metallic - Economic Life	12.5	20.61
Expense	Aerial Cable - non metallic - Economic Life	19	26.14
Expense	Underground Cable - metallic - Economic Life	11.5	25
Expense	Underground Cable - non metallic - Economic Life	19	26.45
Expense	Buried - metallic - Economic Life	14	21.57
Expense	Buried - non metallic - Economic Life	19	25.91
Expense	Conduit Systems - Economic Life	50	56.19
Expense	Motor Vehicles - Net Salvage %	11%	11%
Expense	Garage Work Equipment - Net Salvage %	3%	-11%
Expense	Other Work Equipment - Net Salvage %	1%	3%
Expense	Buildings - Net Salvage %	3%	2%
Expense	Furniture - Net Salvage %	3%	7%
Expense	Office Support Equipment - Net Salvage %	2%	7%
Expense	General Purpose Computer - Net Salvage %	3%	4%
Expense	Digital Electronic Switching - Net Salvage %	2%	3%
Expense	Digital Circuit Equipment - Net Salvage %	-1%	-2%
Expense	Poles - Net Salvage %	-89%	-90%
Expense	Aerial Cable - metallic - Net Salvage %	-18%	-23%
Expense	Aerial Cable - non metallic - Net Salvage %	-22%	-18%
Expense	Underground Cable - metallic - Net Salvage %	-8%	-18%
Expense	Underground Cable - non metallic - Net Salvage %	-17%	-15%
Expense	Buried - metallic - Net Salvage %	-6%	-8%
Expense	Buried - non metallic - Net Salvage %	-12%	-9%
Expense	Conduit Systems - Net Salvage %	-5%	-10%
Expense	Furniture - Capital Costs - % assigned per line	100%	0%
Expense	Furniture - Expenses - % assigned per line	100%	0%
Expense	Office Equipment - Capital Costs - % assigned per line	100%	0%
Expense	Office Equipment - Expenses - % assigned per line	100%	0%
Expense	General Purpose Computer - Capital Costs - % assigned per line	100%	0%
Expense	General Purpose Computer - Expenses - % assigned per line	100%	0%
Expense	Motor Vehicles - Capital Costs - % assigned per line	100%	0%
Expense	Motor Vehicles - Expenses - % assigned per line	100%	0%
Expense	Buildings - Capital Costs - % assigned per line	100%	0%
Expense	Buildings - Expenses - % assigned per line	100%	0%
Expense	Garage Work Eqpt. - Capital Costs - % assigned per line	100%	0%
Expense	Garage Work Eqpt. - Expenses - % assigned per line	100%	0%
Expense	Other Work Eqpt. - Capital Costs - % assigned per line	100%	0%
Expense	Other Work Eqpt. - Expenses - % assigned per line	100%	0%

Comparison of Inputs: HAI5.0a Default vs HAI Emulation of BCPM

Expense	Network Operations - % assigned per line		100%		0%
Expense	Other Taxes - % assigned per line		100%		0%
Expense	Variable Overhead - % assigned per line		100%		0%
UG Excavation/Restoration	Trench Per Ft - 0	$	2.73	$	1.90
UG Excavation/Restoration	Trench Per Ft - 5	$	2.92	$	1.90
UG Excavation/Restoration	Trench Per Ft - 100	$	3.51	$	1.90
UG Excavation/Restoration	Trench Per Ft - 200	$	3.88	$	1.90
UG Excavation/Restoration	Trench Per Ft - 650	$	4.49	$	1.95
UG Excavation/Restoration	Trench Per Ft - 850	$	4.49	$	2.15
UG Excavation/Restoration	Trench Per Ft - 2550	$	6.78	$	2.15
UG Excavation/Restoration	Trench Per Ft - 5000	$	6.78	$	6.00
UG Excavation/Restoration	Trench Per Ft -10000	$	7.29	$	6.00
UG Excavation/Restoration	Backhoe Trench Fraction - 0		0		0.45
UG Excavation/Restoration	Backhoe Trench Fraction - 5		0		0.45
UG Excavation/Restoration	Backhoe Trench Fraction - 100		0		0.45
UG Excavation/Restoration	Backhoe Trench Fraction - 200		0		0.45
UG Excavation/Restoration	Backhoe Trench Fraction - 650		0		0.45
UG Excavation/Restoration	Backhoe Trench Fraction - 850		0		0.45
UG Excavation/Restoration	Backhoe Trench Fraction - 2550		0		0.55
UG Excavation/Restoration	Backhoe Trench Fraction - 5000		0		0.67
UG Excavation/Restoration	Backhoe Trench Fraction -10000		0		0.72
UG Excavation/Restoration	Backhoe Trench Per Ft - 0	$	-	$	3.00
UG Excavation/Restoration	Backhoe Trench Per Ft - 5	$	-	$	3.00
UG Excavation/Restoration	Backhoe Trench Per Ft - 100	$	-	$	3.00
UG Excavation/Restoration	Backhoe Trench Per Ft - 200	$	-	$	3.00
UG Excavation/Restoration	Backhoe Trench Per Ft - 650	$	-	$	3.00
UG Excavation/Restoration	Backhoe Trench Per Ft - 850	$	-	$	3.00
UG Excavation/Restoration	Backhoe Trench Per Ft - 2550	$	-	$	3.00
UG Excavation/Restoration	Backhoe Trench Per Ft - 5000	$	-	$	20.00
UG Excavation/Restoration	Backhoe Trench Per Ft -10000	$	-	$	30.00
UG Excavation/Restoration	Hand Trench Fraction - 0		0		0.01
UG Excavation/Restoration	Hand Trench Fraction - 5		0		0.01
UG Excavation/Restoration	Hand Trench Fraction - 100		0		0.01
UG Excavation/Restoration	Hand Trench Fraction - 200		0		0.03
UG Excavation/Restoration	Hand Trench Fraction - 650		0		0.03
UG Excavation/Restoration	Hand Trench Fraction - 850		0		0.05
UG Excavation/Restoration	Hand Trench Fraction - 2550		0		0.1
UG Excavation/Restoration	Hand Trench Fraction - 5000		0		0.1
UG Excavation/Restoration	Hand Trench Fraction -10000		0		0.12
UG Excavation/Restoration	Hand Trench Per Ft - 0	$	-	$	5.00
UG Excavation/Restoration	Hand Trench Per Ft - 5	$	-	$	5.00
UG Excavation/Restoration	Hand Trench Per Ft - 100	$	-	$	5.00
UG Excavation/Restoration	Hand Trench Per Ft - 200	$	-	$	5.00
UG Excavation/Restoration	Hand Trench Per Ft - 650	$	-	$	5.00
UG Excavation/Restoration	Hand Trench Per Ft - 850	$	-	$	5.00
UG Excavation/Restoration	Hand Trench Per Ft - 2550	$	-	$	5.00
UG Excavation/Restoration	Hand Trench Per Ft - 5000	$	-	$	10.00
UG Excavation/Restoration	Hand Trench Per Ft -10000	$	-	$	18.00
UG Excavation/Restoration	Cut/Restore Asphalt Fraction - 0		0		0.55
UG Excavation/Restoration	Cut/Restore Asphalt Fraction - 5		0		0.55
UG Excavation/Restoration	Cut/Restore Asphalt Fraction - 100		0		0.55
UG Excavation/Restoration	Cut/Restore Asphalt Fraction - 200		0		0.65
UG Excavation/Restoration	Cut/Restore Asphalt Fraction - 650		0		0.7
UG Excavation/Restoration	Cut/Restore Asphalt Fraction - 850		0		0.75
UG Excavation/Restoration	Cut/Restore Asphalt Fraction - 2550		0		0.75
UG Excavation/Restoration	Cut/Restore Asphalt Fraction - 5000		0		0.8
UG Excavation/Restoration	Cut/Restore Asphalt Fraction -10000		0		0.82
UG Excavation/Restoration	Cut/Restore Asphalt Per Ft - 0	$	-	$	6.00
UG Excavation/Restoration	Cut/Restore Asphalt Per Ft - 5	$	-	$	6.00
UG Excavation/Restoration	Cut/Restore Asphalt Per Ft - 100	$	-	$	6.00
UG Excavation/Restoration	Cut/Restore Asphalt Per Ft - 200	$	-	$	6.00
UG Excavation/Restoration	Cut/Restore Asphalt Per Ft - 650	$	-	$	6.00
UG Excavation/Restoration	Cut/Restore Asphalt Per Ft - 850	$	-	$	6.00
UG Excavation/Restoration	Cut/Restore Asphalt Per Ft - 2550	$	-	$	6.00
UG Excavation/Restoration	Cut/Restore Asphalt Per Ft - 5000	$	-	$	18.00
UG Excavation/Restoration	Cut/Restore Asphalt Per Ft -10000	$	-	$	30.00
UG Excavation/Restoration	Cut/Restore Concrete Fraction - 0		0		0.1
UG Excavation/Restoration	Cut/Restore Concrete Fraction - 5		0		0.1
UG Excavation/Restoration	Cut/Restore Concrete Fraction - 100		0		0.1

Comparison of Inputs: HAI5.0a Default vs HAI Emulation of BCPM

UG Excavation/Restoration	Cut/Restore Concrete Fraction - 200	0	0.1
UG Excavation/Restoration	Cut/Restore Concrete Fraction - 650	0	0.1
UG Excavation/Restoration	Cut/Restore Concrete Fraction - 850	0	0.1
UG Excavation/Restoration	Cut/Restore Concrete Fraction - 2550	0	0.15
UG Excavation/Restoration	Cut/Restore Concrete Fraction - 5000	0	0.15
UG Excavation/Restoration	Cut/Restore Concrete Fraction -10000	0	0.16
UG Excavation/Restoration	Cut/Restore Concrete Per Ft - 0	$ -	$ 9.00
UG Excavation/Restoration	Cut/Restore Concrete Per Ft - 5	$ -	$ 9.00
UG Excavation/Restoration	Cut/Restore Concrete Per Ft - 100	$ -	$ 9.00
UG Excavation/Restoration	Cut/Restore Concrete Per Ft - 200	$ -	$ 9.00
UG Excavation/Restoration	Cut/Restore Concrete Per Ft - 650	$ -	$ 9.00
UG Excavation/Restoration	Cut/Restore Concrete Per Ft - 850	$ -	$ 9.00
UG Excavation/Restoration	Cut/Restore Concrete Per Ft - 2550	$ -	$ 9.00
UG Excavation/Restoration	Cut/Restore Concrete Per Ft - 5000	$ -	$ 21.00
UG Excavation/Restoration	Cut/Restore Concrete Per Ft -10000	$ -	$ 36.00
UG Excavation/Restoration	Cut/Restore Sod Fraction - 0	0	0.01
UG Excavation/Restoration	Cut/Restore Sod Fraction - 5	0	0.01
UG Excavation/Restoration	Cut/Restore Sod Fraction - 100	0	0.01
UG Excavation/Restoration	Cut/Restore Sod Fraction - 200	0	0.03
UG Excavation/Restoration	Cut/Restore Sod Fraction - 650	0	0.04
UG Excavation/Restoration	Cut/Restore Sod Fraction - 850	0	0.06
UG Excavation/Restoration	Cut/Restore Sod Fraction - 2550	0	0.04
UG Excavation/Restoration	Cut/Restore Sod Fraction - 5000	0	0.02
UG Excavation/Restoration	Cut/Restore Sod Per Ft - 0	$ -	$ 1.00
UG Excavation/Restoration	Cut/Restore Sod Per Ft - 5	$ -	$ 1.00
UG Excavation/Restoration	Cut/Restore Sod Per Ft - 100	$ -	$ 1.00
UG Excavation/Restoration	Cut/Restore Sod Per Ft - 200	$ -	$ 1.00
UG Excavation/Restoration	Cut/Restore Sod Per Ft - 650	$ -	$ 1.00
UG Excavation/Restoration	Cut/Restore Sod Per Ft - 850	$ -	$ 1.00
UG Excavation/Restoration	Cut/Restore Sod Per Ft - 2550	$ -	$ 1.00
UG Excavation/Restoration	Cut/Restore Sod Per Ft - 5000	$ -	$ 1.00
UG Excavation/Restoration	Cut/Restore Sod Per Ft -10000	$ -	$ 1.00
UG Excavation/Restoration	Pavement Stabilization Per Ft - 0	$ -	$ 5.00
UG Excavation/Restoration	Pavement Stabilization Per Ft - 5	$ -	$ 5.00
UG Excavation/Restoration	Pavement Stabilization Per Ft - 100	$ -	$ 5.00
UG Excavation/Restoration	Pavement Stabilization Per Ft - 200	$ -	$ 5.00
UG Excavation/Restoration	Pavement Stabilization Per Ft - 650	$ -	$ 5.00
UG Excavation/Restoration	Pavement Stabilization Per Ft - 850	$ -	$ 9.00
UG Excavation/Restoration	Pavement Stabilization Per Ft - 2550	$ -	$ 13.00
UG Excavation/Restoration	Pavement Stabilization Per Ft - 5000	$ -	$ 17.00
UG Excavation/Restoration	Pavement Stabilization Per Ft -10000	$ -	$ 20.00
UG Excavation/Restoration	Dirt Stabilization Per Ft - 0	$ -	$ 1.00
UG Excavation/Restoration	Dirt Stabilization Per Ft - 5	$ -	$ 1.00
UG Excavation/Restoration	Dirt Stabilization Per Ft - 100	$ -	$ 1.00
UG Excavation/Restoration	Dirt Stabilization Per Ft - 200	$ -	$ 1.00
UG Excavation/Restoration	Dirt Stabilization Per Ft - 650	$ -	$ 1.00
UG Excavation/Restoration	Dirt Stabilization Per Ft - 850	$ -	$ 4.00
UG Excavation/Restoration	Dirt Stabilization Per Ft - 2550	$ -	$ 11.00
UG Excavation/Restoration	Dirt Stabilization Per Ft - 5000	$ -	$ 12.00
UG Excavation/Restoration	Dirt Stabilization Per Ft -10000	$ -	$ 16.00
UG Excavation/Restoration	Simple Backfill - 0	$ -	$ 0.15
UG Excavation/Restoration	Simple Backfill - 5	$ -	$ 0.15
UG Excavation/Restoration	Simple Backfill - 100	$ -	$ 0.15
UG Excavation/Restoration	Simple Backfill - 200	$ -	$ 0.15
UG Excavation/Restoration	Simple Backfill - 650	$ -	$ 0.15
UG Excavation/Restoration	Simple Backfill - 850	$ -	$ 0.15
UG Excavation/Restoration	Simple Backfill - 2550	$ -	$ 0.15
UG Excavation/Restoration	Simple Backfill - 5000	$ -	$ 0.15
UG Excavation/Restoration	Simple Backfill -10000	$ -	$ 0.15
Buried Excavation/Restoration	Plow Fraction - 0	0	0.6
Buried Excavation/Restoration	Plow Fraction - 5	0	0.6
Buried Excavation/Restoration	Plow Fraction - 100	0	0.6
Buried Excavation/Restoration	Plow Fraction - 200	0	0.5
Buried Excavation/Restoration	Plow Fraction - 650	0	0.35
Buried Excavation/Restoration	Plow Fraction - 850	0	0.2
Buried Excavation/Restoration	Plow Per Ft - 0	$ -	$ 0.80
Buried Excavation/Restoration	Plow Per Ft - 5	$ -	$ 0.80
Buried Excavation/Restoration	Plow Per Ft - 100	$ -	$ 0.80
Buried Excavation/Restoration	Plow Per Ft - 200	$ -	$ 0.80

Comparison of Inputs: HAI5.0a Default vs HAI Emulation of BCPM

Buried Excavation/Restoration	Plow Per Ft - 650	$ -	$ 0.60
Buried Excavation/Restoration	Plow Per Ft - 850	$ -	$ 1.20
Buried Excavation/Restoration	Plow Per Ft - 2550	$ -	$ 1.20
Buried Excavation/Restoration	Plow Per Ft - 5000	$ -	$ 1.20
Buried Excavation/Restoration	Plow Per Ft -10000	$ -	$ 1.20
Buried Excavation/Restoration	Trench Per Ft - 0	$ 1.41	$ 1.90
Buried Excavation/Restoration	Trench Per Ft - 5	$ 1.73	$ 1.90
Buried Excavation/Restoration	Trench Per Ft - 100	$ 2.58	$ 1.90
Buried Excavation/Restoration	Trench Per Ft - 200	$ 3.72	$ 1.90
Buried Excavation/Restoration	Trench Per Ft - 650	$ 4.46	$ 1.95
Buried Excavation/Restoration	Trench Per Ft - 850	$ 4.46	$ 2.15
Buried Excavation/Restoration	Trench Per Ft - 2550	$ 6.78	$ 2.15
Buried Excavation/Restoration	Trench Per Ft - 5000	$ 6.78	$ 6.00
Buried Excavation/Restoration	Trench Per Ft -10000	$ 7.29	$ 15.00
Buried Excavation/Restoration	Backhoe Trench Fraction - 0	0	0.1
Buried Excavation/Restoration	Backhoe Trench Fraction - 5	0	0.1
Buried Excavation/Restoration	Backhoe Trench Fraction - 100	0	0.1
Buried Excavation/Restoration	Backhoe Trench Fraction - 200	0	0.1
Buried Excavation/Restoration	Backhoe Trench Fraction - 650	0	0.1
Buried Excavation/Restoration	Backhoe Trench Fraction - 850	0	0.1
Buried Excavation/Restoration	Backhoe Trench Fraction - 2550	0	0.1
Buried Excavation/Restoration	Backhoe Trench Fraction - 5000	0	0.1
Buried Excavation/Restoration	Backhoe Trench Fraction -10000	0	0.25
Buried Excavation/Restoration	Backhoe Trench Per Ft - 0	$ -	$ 3.00
Buried Excavation/Restoration	Backhoe Trench Per Ft - 5	$ -	$ 3.00
Buried Excavation/Restoration	Backhoe Trench Per Ft - 100	$ -	$ 3.00
Buried Excavation/Restoration	Backhoe Trench Per Ft - 200	$ -	$ 3.00
Buried Excavation/Restoration	Backhoe Trench Per Ft - 650	$ -	$ 3.00
Buried Excavation/Restoration	Backhoe Trench Per Ft - 850	$ -	$ 3.00
Buried Excavation/Restoration	Backhoe Trench Per Ft - 2550	$ -	$ 3.00
Buried Excavation/Restoration	Backhoe Trench Per Ft - 5000	$ -	$ 20.00
Buried Excavation/Restoration	Backhoe Trench Per Ft -10000	$ -	$ 30.00
Buried Excavation/Restoration	Hand Trench Fraction - 200	0	0.01
Buried Excavation/Restoration	Hand Trench Fraction - 650	0	0.02
Buried Excavation/Restoration	Hand Trench Fraction - 850	0	0.04
Buried Excavation/Restoration	Hand Trench Fraction - 2550	0	0.05
Buried Excavation/Restoration	Hand Trench Fraction - 5000	0	0.06
Buried Excavation/Restoration	Hand Trench Fraction -10000	0	0.1
Buried Excavation/Restoration	Hand Trench Per Ft - 0	$ -	$ 5.00
Buried Excavation/Restoration	Hand Trench Per Ft - 5	$ -	$ 5.00
Buried Excavation/Restoration	Hand Trench Per Ft - 100	$ -	$ 5.00
Buried Excavation/Restoration	Hand Trench Per Ft - 200	$ -	$ 5.00
Buried Excavation/Restoration	Hand Trench Per Ft - 650	$ -	$ 5.00
Buried Excavation/Restoration	Hand Trench Per Ft - 850	$ -	$ 5.00
Buried Excavation/Restoration	Hand Trench Per Ft - 2550	$ -	$ 5.00
Buried Excavation/Restoration	Hand Trench Per Ft - 5000	$ -	$ 10.00
Buried Excavation/Restoration	Hand Trench Per Ft -10000	$ -	$ 18.00
Buried Excavation/Restoration	Bore Cable Fraction - 850	0	0.03
Buried Excavation/Restoration	Bore Cable Fraction - 2550	0	0.04
Buried Excavation/Restoration	Bore Cable Fraction - 5000	0	0.05
Buried Excavation/Restoration	Bore Cable Fraction -10000	0	0.05
Buried Excavation/Restoration	Bore Cable Per Ft - 0	$ -	$ 11.00
Buried Excavation/Restoration	Bore Cable Per Ft - 5	$ -	$ 11.00
Buried Excavation/Restoration	Bore Cable Per Ft - 100	$ -	$ 11.00
Buried Excavation/Restoration	Bore Cable Per Ft - 200	$ -	$ 11.00
Buried Excavation/Restoration	Bore Cable Per Ft - 650	$ -	$ 11.00
Buried Excavation/Restoration	Bore Cable Per Ft - 850	$ -	$ 11.00
Buried Excavation/Restoration	Bore Cable Per Ft - 2550	$ -	$ 11.00
Buried Excavation/Restoration	Bore Cable Per Ft - 5000	$ -	$ 11.00
Buried Excavation/Restoration	Bore Cable Per Ft -10000	$ -	$ 18.00
Buried Excavation/Restoration	Push Pipe/Pull Cable Fraction - 0	0	0.02
Buried Excavation/Restoration	Push Pipe/Pull Cable Fraction - 5	0	0.02
Buried Excavation/Restoration	Push Pipe/Pull Cable Fraction - 100	0	0.02
Buried Excavation/Restoration	Push Pipe/Pull Cable Fraction - 200	0	0.02
Buried Excavation/Restoration	Push Pipe/Pull Cable Fraction - 650	0	0.02
Buried Excavation/Restoration	Push Pipe/Pull Cable Fraction - 850	0	0.04
Buried Excavation/Restoration	Push Pipe/Pull Cable Fraction - 2550	0	0.05
Buried Excavation/Restoration	Push Pipe/Pull Cable Fraction - 5000	0	0.06
Buried Excavation/Restoration	Push Pipe/Pull Cable Fraction -10000	0	0.06

Comparison of Inputs: HAI5.0a Default vs HAI Emulation of BCPM

Buried Excavation/Restoration	Push Pipe/Pull Cable Per Ft - 0	$ -	$ 6.00
Buried Excavation/Restoration	Push Pipe/Pull Cable Per Ft - 5	$ -	$ 6.00
Buried Excavation/Restoration	Push Pipe/Pull Cable Per Ft - 100	$ -	$ 6.00
Buried Excavation/Restoration	Push Pipe/Pull Cable Per Ft - 200	$ -	$ 6.00
Buried Excavation/Restoration	Push Pipe/Pull Cable Per Ft - 650	$ -	$ 6.00
Buried Excavation/Restoration	Push Pipe/Pull Cable Per Ft - 850	$ -	$ 6.00
Buried Excavation/Restoration	Push Pipe/Pull Cable Per Ft - 2550	$ -	$ 6.00
Buried Excavation/Restoration	Push Pipe/Pull Cable Per Ft - 5000	$ -	$ 6.00
Buried Excavation/Restoration	Push Pipe/Pull Cable Per Ft -10000	$ -	$ 24.00
Buried Excavation/Restoration	Cut/Restore Asphalt Fraction - 0	0	0.03
Buried Excavation/Restoration	Cut/Restore Asphalt Fraction - 5	0	0.03
Buried Excavation/Restoration	Cut/Restore Asphalt Fraction - 100	0	0.03
Buried Excavation/Restoration	Cut/Restore Asphalt Fraction - 200	0	0.03
Buried Excavation/Restoration	Cut/Restore Asphalt Fraction - 650	0	0.03
Buried Excavation/Restoration	Cut/Restore Asphalt Fraction - 850	0	0.05
Buried Excavation/Restoration	Cut/Restore Asphalt Fraction - 2550	0	0.08
Buried Excavation/Restoration	Cut/Restore Asphalt Fraction - 5000	0	0.18
Buried Excavation/Restoration	Cut/Restore Asphalt Fraction -10000	0	0.6
Buried Excavation/Restoration	Cut/Restore Asphalt Per Ft - 0	$ -	$ 6.00
Buried Excavation/Restoration	Cut/Restore Asphalt Per Ft - 5	$ -	$ 6.00
Buried Excavation/Restoration	Cut/Restore Asphalt Per Ft - 100	$ -	$ 6.00
Buried Excavation/Restoration	Cut/Restore Asphalt Per Ft - 200	$ -	$ 6.00
Buried Excavation/Restoration	Cut/Restore Asphalt Per Ft - 650	$ -	$ 6.00
Buried Excavation/Restoration	Cut/Restore Asphalt Per Ft - 850	$ -	$ 6.00
Buried Excavation/Restoration	Cut/Restore Asphalt Per Ft - 2550	$ -	$ 6.00
Buried Excavation/Restoration	Cut/Restore Asphalt Per Ft - 5000	$ -	$ 18.00
Buried Excavation/Restoration	Cut/Restore Asphalt Per Ft -10000	$ -	$ 30.00
Buried Excavation/Restoration	Cut/Restore Concrete Fraction - 0	0	0.01
Buried Excavation/Restoration	Cut/Restore Concrete Fraction - 5	0	0.01
Buried Excavation/Restoration	Cut/Restore Concrete Fraction - 100	0	0.01
Buried Excavation/Restoration	Cut/Restore Concrete Fraction - 200	0	0.01
Buried Excavation/Restoration	Cut/Restore Concrete Fraction - 650	0	0.01
Buried Excavation/Restoration	Cut/Restore Concrete Fraction - 850	0	0.03
Buried Excavation/Restoration	Cut/Restore Concrete Fraction - 2550	0	0.05
Buried Excavation/Restoration	Cut/Restore Concrete Fraction - 5000	0	0.08
Buried Excavation/Restoration	Cut/Restore Concrete Fraction -10000	0	0.2
Buried Excavation/Restoration	Cut/Restore Concrete Per Ft - 0	$ -	$ 9.00
Buried Excavation/Restoration	Cut/Restore Concrete Per Ft - 5	$ -	$ 9.00
Buried Excavation/Restoration	Cut/Restore Concrete Per Ft - 100	$ -	$ 9.00
Buried Excavation/Restoration	Cut/Restore Concrete Per Ft - 200	$ -	$ 9.00
Buried Excavation/Restoration	Cut/Restore Concrete Per Ft - 650	$ -	$ 9.00
Buried Excavation/Restoration	Cut/Restore Concrete Per Ft - 850	$ -	$ 9.00
Buried Excavation/Restoration	Cut/Restore Concrete Per Ft - 2550	$ -	$ 9.00
Buried Excavation/Restoration	Cut/Restore Concrete Per Ft -10000	$ -	$ 36.00
Buried Excavation/Restoration	Cut/Restore Sod Fraction - 0	0	0.02
Buried Excavation/Restoration	Cut/Restore Sod Fraction - 5	0	0.02
Buried Excavation/Restoration	Cut/Restore Sod Fraction - 100	0	0.02
Buried Excavation/Restoration	Cut/Restore Sod Fraction - 200	0	0.02
Buried Excavation/Restoration	Cut/Restore Sod Fraction - 650	0	0.02
Buried Excavation/Restoration	Cut/Restore Sod Fraction - 850	0	0.35
Buried Excavation/Restoration	Cut/Restore Sod Fraction - 2550	0	0.35
Buried Excavation/Restoration	Cut/Restore Sod Fraction - 5000	0	0.11
Buried Excavation/Restoration	Cut/Restore Sod Fraction -10000	0	0.05
Buried Excavation/Restoration	Cut/Restore Sod Per Ft - 0	$ -	$ 1.00
Buried Excavation/Restoration	Cut/Restore Sod Per Ft - 5	$ -	$ 1.00
Buried Excavation/Restoration	Cut/Restore Sod Per Ft - 100	$ -	$ 1.00
Buried Excavation/Restoration	Cut/Restore Sod Per Ft - 200	$ -	$ 1.00
Buried Excavation/Restoration	Cut/Restore Sod Per Ft - 650	$ -	$ 1.00
Buried Excavation/Restoration	Cut/Restore Sod Per Ft - 850	$ -	$ 1.00
Buried Excavation/Restoration	Cut/Restore Sod Per Ft - 2550	$ -	$ 1.00
Buried Excavation/Restoration	Cut/Restore Sod Per Ft - 5000	$ -	$ 1.00
Buried Excavation/Restoration	Cut/Restore Sod Per Ft -10000	$ -	$ 1.00
Buried Excavation/Restoration	Restoration Not Required - 0	$ -	$ 0.62
Buried Excavation/Restoration	Restoration Not Required - 5	$ -	$ 0.62
Buried Excavation/Restoration	Restoration Not Required - 100	$ -	$ 0.62
Buried Excavation/Restoration	Restoration Not Required - 200	$ -	$ 0.52
Buried Excavation/Restoration	Restoration Not Required - 650	$ -	$ 0.37
Buried Excavation/Restoration	Restoration Not Required - 850	$ -	$ 0.27
Buried Excavation/Restoration	Restoration Not Required - 2550	$ -	$ 0.09

Comparison of Inputs: HAI5.0a Default vs HAI Emulation of BCPM

Buried Excavation/Restoration	Restoration Not Required - 5000	$	-	$	0.11
Buried Excavation/Restoration	Restoration Not Required -10000	$	-	$	0.11
Buried Excavation/Restoration	Simple Backfill - 0	$	-	$	0.15
Buried Excavation/Restoration	Simple Backfill - 5	$	-	$	0.15
Buried Excavation/Restoration	Simple Backfill - 100	$	-	$	0.15
Buried Excavation/Restoration	Simple Backfill - 200	$	-	$	0.15
Buried Excavation/Restoration	Simple Backfill - 650	$	-	$	0.15
Buried Excavation/Restoration	Simple Backfill - 850	$	-	$	0.15
Buried Excavation/Restoration	Simple Backfill - 2550	$	-	$	0.15
Buried Excavation/Restoration	Simple Backfill - 5000	$	-	$	0.15
Buried Excavation/Restoration	Simple Backfill -10000	$	-	$	0.15
Surface Texture - affect	Bouldery		1.28		1
Surface Texture - affect	Bouldery Coarse Sand		1.28		1
Surface Texture - affect	Bouldery & Fine Sandy Loam		1.28		1
Surface Texture - affect	Bouldery & Loam		1.28		1
Surface Texture - affect	Bouldery & Sandy Loam		1.28		1
Surface Texture - affect	Bouldery & Silty Clay Loam		1.28		1
Surface Texture - affect	Bouldery & Sandy Loam		1.28		1
Surface Texture - affect	Very Bouldery		1.28		1.1
Surface Texture - affect	Very Bouldery & Fine Sandy Loam		1.28		1.1
Surface Texture - affect	Very bouldery & Loamy		1.28		1.1
Surface Texture - affect	Very Bouldery & Loamy Sand		1.28		1.1
Surface Texture - affect	Very Bouldery & Silt		1.28		1.1
Surface Texture - affect	Very Bouldery & Sandy Loam		1.28		1.1
Surface Texture - affect	Extremely Bouldery		1.28		1.3
Surface Texture - affect	Extremely Bouldery & Fine Sandy Loam		1.28		1.3
Surface Texture - affect	Extremely Bouldery & Loamy		1.28		1.3
Surface Texture - affect	Extremely Bouldery & Silt Loam		1.28		1.3
Surface Texture - affect	Extremely Bouldery & Sandy Loam		1.28		1.3
Surface Texture - affect	Cobbly & Fine Sand		1		1.1
Surface Texture - affect	Cobbly & Fine Sandy Loam		1		1.1
Surface Texture - affect	Cobbly & Sand		1		1.1
Surface Texture - affect	Cobbly & Sandy Loam		1		1.1
Surface Texture - affect	Angular Cobbly		1.28		1
Surface Texture - affect	Angular Cobbly & Fine Sandy Loam		1.28		1.1
Surface Texture - affect	Very Cobbly		1.28		1.2
Surface Texture - affect	Very Cobbly & Clay		1.28		1.2
Surface Texture - affect	Very Cobbly & Clay Loam		1.28		1.2
Surface Texture - affect	Very Cobbly & Fine Sandy Loam		1.28		1.2
Surface Texture - affect	Very Cobbly & Loamy		1.28		1.2
Surface Texture - affect	Very Cobbly & Fine Loamy Sand		1.28		1.2
Surface Texture - affect	Very Cobbly & Loamy Sand		1.28		1.2
Surface Texture - affect	Very Cobbly & Muck		1.28		1.2
Surface Texture - affect	Very Cobbly & Sandy Clay Loam		1.28		1.2
Surface Texture - affect	Very Cobbly & Silt		1.28		1.2
Surface Texture - affect	Very Cobbly & Sandy Loam		1.28		1.2
Surface Texture - affect	Very Cobbly & Very Fine Sand		1.28		1.2
Surface Texture - affect	Extremely Cobbly		1.28		1.2
Surface Texture - affect	Extremely Cobbly & Clay		1.28		1.2
Surface Texture - affect	Extremely Cobbly Loam		1.28		1.2
Surface Texture - affect	Extremely Cobbly & Silt		1.28		1.2
Surface Texture - affect	Extremely Cobbly &Sandy Loam		1.28		1.2
Surface Texture - affect	Extremely Cobbly Very Fine Sandy Loam		1.28		1.3
Surface Texture - affect	Cemented		1.28		1.3
Surface Texture - affect	Channery & Fine Sandy Loam		1		1.1
Surface Texture - affect	Cherty		1		1.2
Surface Texture - affect	Cherty & Loam		1.28		1.2
Surface Texture - affect	Cherty & Silty Clay Loam		1.28		1.2
Surface Texture - affect	Cherty & Silty Loam		1.28		1.2
Surface Texture - affect	Cherty & Sandy Loam		1.28		1.2
Surface Texture - affect	Coarse Cherty		1.28		1.2
Surface Texture - affect	Very Cherty		1.28		1.2
Surface Texture - affect	Very Cherty & Loam		1.28		1.2
Surface Texture - affect	Very Cherty & Silty Loam		1.28		1.2
Surface Texture - affect	Extremely Cherty		1.28		1.3
Surface Texture - affect	Extremely Cherty & Silty Loam		1.28		1.3
Surface Texture - affect	Flaggy & Fine Sandy Loam		1		1.1
Surface Texture - affect	Very Flaggy		1.28		1.1
Surface Texture - affect	Very Flaggy & Coarse Sandy Loam		1.28		1.1

Comparison of Inputs: HAI5.0a Default vs HAI Emulation of BCPM

Surface Texture - affect	Very Flaggy & Loam	1.28	1.1
Surface Texture - affect	Very Flaggy & Silty Clay Loam	1.28	1.1
Surface Texture - affect	Very Flaggy & Sandy Loam	1.28	1.1
Surface Texture - affect	Extremely Flaggy	1.28	1.1
Surface Texture - affect	Extremely Flaggy & Loamy	1.28	1.1
Surface Texture - affect	Fine Sand	1	1.1
Surface Texture - affect	Fine Sandy Loam	1	1.1
Surface Texture - affect	Gravel & Loamy Fine Sand	1	1.1
Surface Texture - affect	Gravel & Very Fine Sandy Loam	1.28	1.1
Surface Texture - affect	Very Gravelly	1.28	1
Surface Texture - affect	Very gravelly & Clay Loam	1.28	1
Surface Texture - affect	Very Gravelly & coarse Sand	1.28	1
Surface Texture - affect	Very Gravelly & coarse Sandy Loam	1.28	1
Surface Texture - affect	Very Gravelly & Fine Sandy Loam	1.28	1
Surface Texture - affect	Very Gravelly & Loam	1.28	1
Surface Texture - affect	Very Gravelly & Loamy Coarse Sand	1.28	1
Surface Texture - affect	Very Gravelly & Loamy Sand	1.28	1
Surface Texture - affect	Very Gravelly & Sand	1.28	1
Surface Texture - affect	Very Gravelly & Sandy Clay Loam	1.28	1
Surface Texture - affect	Very Gravelly & Silty Clay Loam	1.28	1
Surface Texture - affect	Very Gravelly & Silt	1.28	1
Surface Texture - affect	Very Gravelly & Sandy Loam	1.28	1
Surface Texture - affect	Very Gravelly & Very Fine Sand	1.28	1
Surface Texture - affect	Very Gravelly & Very Fine Sandy Loam	1.28	1
Surface Texture - affect	Extremely Gravelly	1.28	1.1
Surface Texture - affect	Extremely Gravelly & Coarse Loam	1.28	1.1
Surface Texture - affect	Extremely Gravelly & Coarse Sand	1.28	1.1
Surface Texture - affect	Extremely Gravelly & Coarse Sandy Loam	1.28	1.1
Surface Texture - affect	Extremely Gravelly & Fine Sand Loam	1.28	1.1
Surface Texture - affect	Extremely Gravelly & Loam	1.28	1.1
Surface Texture - affect	Extremely Gravelly & Loamy Coarse	1.28	1.1
Surface Texture - affect	Extremely Gravelly & Loamy Sand	1.28	1.1
Surface Texture - affect	Extremely Gravelly & Sand	1.28	1.1
Surface Texture - affect	Extremely Gravelly & Silty Loam	1.28	1.1
Surface Texture - affect	Extremely Gravelly & Sandy Loam	1.28	1.1
Surface Texture - affect	Gypsiferous Material	1.28	1.2
Surface Texture - affect	Ice or Frozen Soil	1.28	1.5
Surface Texture - affect	Indurated	1.28	1.2
Surface Texture - affect	Loamy Fine Sand	1	1.1
Surface Texture - affect	Rubbly	1.28	1.5
Surface Texture - affect	Rubbly Fine Sandy Loam	1.28	1.5
Surface Texture - affect	Very Shaly	1.28	1.5
Surface Texture - affect	Very Shaly & Clay Loam	1.28	1.5
Surface Texture - affect	Extremely Shaly	1.28	2
Surface Texture - affect	Stony & Fine Sandy Loam	1	1.1
Surface Texture - affect	Stony & Loamy Fine Sand	1	1.1
Surface Texture - affect	Stony & Sandy Very Fine Silty Loam	1	1.1
Surface Texture - affect	Very Stony	1	1.2
Surface Texture - affect	Very Stony & Clay	1	1.2
Surface Texture - affect	Very Stony & Clay Loam	1	1.2
Surface Texture - affect	Very Stony & Fine Sandy Loam	1	1.2
Surface Texture - affect	Very Stony & Loamy	1	1.2
Surface Texture - affect	Very Stony & Loamy Fine Sand	1	1.2
Surface Texture - affect	Very Stony & Loamy Sand	1	1.2
Surface Texture - affect	Very Stony & Mucky Peat	1	1.2
Surface Texture - affect	Very Stony & Muck	1	1.2
Surface Texture - affect	Very Stony & Silty Clay Loam	1	1.2
Surface Texture - affect	Very Stony & Silty Loam	1	1.2
Surface Texture - affect	Very Stony & Sandy Loam	1	1.2
Surface Texture - affect	Very Stony & Very Fine Sandy Loam	1.28	1.2
Surface Texture - affect	Extremely Stony	1.28	1.3
Surface Texture - affect	Extremely Stony & Clay	1.28	1.3
Surface Texture - affect	Extremely Stony & Clay Loam	1.28	1.3
Surface Texture - affect	Extremely Stony & Coarse Sand	1.28	1.3
Surface Texture - affect	Extremely Stony & Coarse Sand Loam	1.28	1.3
Surface Texture - affect	Extremely Stony & Fine Sandy Loam	1.28	1.3
Surface Texture - affect	Extremely Stony & Loamy	1.28	1.3
Surface Texture - affect	Extremely Stony & Loamy Coarse Sand	1.28	1.3
Surface Texture - affect	Extremely Stony & Loamy Sand	1.28	1.3

Comparison of Inputs: HAI5.0a Default vs HAI Emulation of BCPM

Surface Texture - affect	Extremely Stony & Muck	1.28	1.3
Surface Texture - affect	Extremely Stony & Silty Clay	1.28	1.3
Surface Texture - affect	Extremely Stony & Silty Clay Loam	1.28	1.3
Surface Texture - affect	Extremely Stony & Silty Loam	1.28	1.3
Surface Texture - affect	Extremely Stony & Sandy Loam	1.28	1.3
Surface Texture - affect	Extremely Stony & Very Fine Sandy Loam	1.28	1.3
Surface Texture - affect	Slaty	1.28	3
Surface Texture - affect	Slaty & Loam	1.28	3
Surface Texture - affect	Slaty & Silty Loam	1.28	3
Surface Texture - affect	Very Slaty	1.28	3.5
Surface Texture - affect	Extremely Slaty	1.28	4
Surface Texture - affect	Unweathered Bedrock	1.28	2
Surface Texture - affect	Weathered Bedrock	1.28	3