Piedmont Stream | Monthly percentages : do not use

TAR RIVER

Table shows percentage of unregulated Index B value achieved by flow scenario by month   Seasonal PHABSIM data

Flow scenario based SC monthly percentages for Piedmont modified by Hugh   using percentages for **Piedmont Stream**

| | **Green** | ≥ 80% and ≤ 120% | | | **Red** | < 80 % | | **Yellow** | > 120% | | |

Guild		winter	winter	winter	Spring	Spring	Spring	Summer	Summer	Summer	Fall	Fall	winter		
% AMF by month		30%	40%	40%	40%	30%	30%	20%	20%	20%	20%	20%	20%		
Guild		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Minimum	Maximum
Shallow	SSYOY	421.9%	318.2%	318.2%	165.7%	203.6%	203.6%	120.3%	120.3%	120.3%	127.4%	127.4%	519.8%	120.3%	519.8%
	SSVEG	263.8%	215.5%	215.5%	144.5%	168.0%	168.0%	121.5%	121.5%	121.5%	125.7%	125.7%	335.9%	121.5%	335.9%
	SSWOOD	263.8%	215.6%	215.6%	144.5%	168.0%	168.0%	121.5%	121.5%	121.5%	125.6%	125.6%	336.0%	121.5%	336.0%
	SSCOARSE	179.5%	179.5%	179.5%	134.5%	134.5%	134.5%	102.0%	102.0%	102.0%	100.3%	100.3%	165.3%	100.3%	179.5%
	SSFINENC	202.9%	179.3%	179.3%	134.8%	148.0%	148.0%	118.3%	118.3%	118.3%	120.2%	120.2%	241.4%	118.3%	241.4%
	SFLOWVEL	215.6%	203.4%	203.4%	140.6%	147.1%	147.1%	112.8%	112.8%	112.8%	111.3%	111.3%	225.2%	111.3%	225.2%
	SFMODVEL	306.6%	236.4%	236.4%	155.4%	191.4%	191.4%	149.8%	149.8%	149.8%	140.1%	140.1%	326.4%	140.1%	326.4%
	SFHIVEL	180.0%	210.0%	210.0%	156.0%	136.0%	136.0%	89.5%	89.5%	89.5%	81.8%	81.8%	100.0%	81.8%	210.0%
Deep	DSCOV	97.9%	102.8%	102.8%	101.5%	97.8%	97.8%	77.3%	77.3%	77.3%	75.8%	75.8%	63.0%	63.0%	102.8%
	DSCOV2	123.7%	121.6%	121.6%	112.9%	114.5%	114.5%	104.7%	104.7%	104.7%	104.3%	104.3%	116.9%	104.3%	123.7%
	DSNC	133.8%	139.6%	139.6%	122.8%	118.7%	118.7%	101.5%	101.5%	101.5%	99.9%	99.9%	112.1%	99.9%	139.6%
	DFFINE	80.7%	98.5%	98.5%	98.0%	83.2%	83.2%	76.9%	76.9%	76.9%	73.7%	73.7%	56.1%	56.1%	98.5%
	DFGRCOB	12.7%	19.1%	19.1%	28.2%	20.3%	20.3%	36.5%	36.5%	36.5%	33.9%	33.9%	11.9%	11.9%	36.5%
	DFCOARSE	62.4%	74.7%	74.7%	82.1%	71.0%	71.0%	69.0%	69.0%	69.0%	72.1%	72.1%	46.6%	46.6%	82.1%
Other	AMSS2			81.8%	88.1%	77.3%								77.3%	88.1%
	ROBRHS														
	GORHA	85.6%	90.7%	90.7%	93.7%	89.5%	89.5%	92.1%	92.1%	92.1%	90.7%	90.7%	76.9%	76.9%	93.7%
	GORHJ	95.3%	106.5%	106.5%	102.3%	93.5%	93.5%	89.8%	89.8%	89.8%	87.4%	87.4%	77.7%	77.7%	106.5%
	AMSS4														
	EPHEM	155.8%	149.6%	149.6%	126.1%	130.5%	130.5%	111.0%	111.0%	111.0%	110.0%	110.0%	150.8%	110.0%	155.8%
	PLECO	139.4%	142.7%	142.7%	124.4%	122.2%	122.2%	105.3%	105.3%	105.3%	104.0%	104.0%	122.9%	104.0%	142.7%
	TRIC1	109.5%	113.3%	113.3%	107.8%	104.9%	104.9%	97.5%	97.5%	97.5%	96.3%	96.3%	97.0%	96.3%	113.3%
	MACLR	138.2%	133.6%	133.6%	118.0%	121.3%	121.3%	112.4%	112.4%	112.4%	108.2%	108.2%	138.2%	108.2%	138.2%
AVERAGE		163.4%	152.5%	149.2%	118.2%	121.0%	123.2%	100.5%	100.5%	100.5%	99.4%	99.4%	166.0%		
MEDIAN		138.8%	141.1%	139.6%	122.8%	121.3%	121.7%	103.3%	103.3%	103.3%	102.1%	102.1%	119.9%		
MINIMUM		12.7%	19.1%	19.1%	28.2%	20.3%	20.3%	36.5%	36.5%	36.5%	33.9%	33.9%	11.9%		
MAXIMUM		421.9%	318.2%	318.2%	165.7%	203.6%	203.6%	149.8%	149.8%	149.8%	140.1%	140.1%	519.8%		

Piedmont Stream | **Original scenerio**

TAR RIVER Table shows percentage of unregulated Index B value achieved by flow scenario by month   **Monthly PHABSIM data DYALT**

Flow scenario based SC monthly percentages for Piedmont modified by Hugh   using AMF percentages originally proposed

| | | **Green** | ≥ 80% and ≤ 120% | | **Red** | < 80 % | | **Yellow** | > 120% | | | |

		winter	winter	winter	Spring	Spring	Spring	Summer	Summer	Summer	Fall	Fall	winter		
% AMF by month		30%	40%	40%	40%	30%	30%	20%	20%	20%	20%	20%	20%		
Guild		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Minimum	Maximum
Shallow	SSYOY	413.9%	422.5%	554.8%	325.3%	193.8%	123.9%	128.5%	122.6%	111.4%	115.2%	160.9%	273.4%	111.4%	554.8%
	SSVEG	260.2%	251.7%	281.0%	213.2%	161.4%	115.8%	126.3%	123.7%	115.2%	116.5%	151.6%	224.6%	115.2%	281.0%
	SSWOOD	260.3%	251.6%	281.0%	213.2%	161.4%	115.8%	126.3%	123.6%	115.2%	116.6%	151.6%	224.7%	115.2%	281.0%
	SSCOARSE	176.2%	204.4%	216.3%	166.6%	124.7%	106.6%	101.4%	102.6%	102.2%	99.4%	115.7%	129.9%	99.4%	216.3%
	SSFINENC	200.6%	199.6%	214.3%	176.9%	142.5%	111.8%	120.8%	120.0%	113.9%	114.2%	138.8%	182.6%	111.8%	214.3%
	SFLOWVEL	211.4%	240.2%	266.9%	195.2%	137.7%	109.4%	111.6%	114.6%	111.8%	108.1%	127.9%	161.7%	108.1%	266.9%
	SFMODVEL	303.6%	278.3%	315.2%	233.9%	177.7%	132.4%	141.1%	153.4%	140.0%	133.0%	160.7%	221.2%	132.4%	315.2%
	SFHIVEL	171.4%	200.0%	221.1%	233.3%	182.6%	120.0%	85.7%	89.5%	94.1%	84.2%	82.6%	83.3%	82.6%	233.3%
Deep	DSCOV	98.0%	103.1%	103.1%	102.1%	97.3%	99.9%	75.9%	76.9%	81.9%	79.4%	71.3%	64.3%	64.3%	103.1%
	DSCOV2	123.3%	124.4%	126.3%	119.8%	111.7%	108.7%	104.8%	105.0%	104.2%	103.6%	106.2%	110.6%	103.6%	126.3%
	DSNC	132.9%	143.2%	149.9%	137.7%	113.4%	109.8%	101.1%	101.8%	101.2%	100.6%	99.1%	103.2%	99.1%	149.9%
	DFFINE	80.4%	100.0%	99.0%	97.0%	82.1%	90.3%	33.6%	35.6%	41.2%	41.1%	28.8%	17.1%	17.1%	100.0%
	DFGRCOB	12.8%	17.5%	16.1%	19.2%	23.0%	34.9%	33.6%	35.6%	41.2%	41.1%	28.8%	17.1%	12.8%	41.2%
	DFCOARSE	62.5%	60.3%	58.9%	62.1%	72.3%	84.4%	67.1%	68.0%	80.9%	78.4%	63.1%	52.7%	52.7%	84.4%
Other	AMSS2			78.5%	78.5%	77.0%								77.0%	78.5%
	ROBRHS														
	GORHA	84.5%	88.7%	88.4%	90.1%	90.7%	99.4%	94.4%	97.2%	100.0%	99.8%	89.0%	79.4%	79.4%	100.0%
	GORHJ	91.5%	106.4%	103.9%	99.7%	91.0%	105.5%	91.2%	95.3%	100.0%	99.6%	91.2%	75.8%	75.8%	106.4%
	AMSS4														
	EPHEM	154.4%	166.4%	173.4%	143.1%	111.3%	107.4%	109.1%	112.8%	111.7%	110.7%	107.5%	118.4%	107.4%	173.4%
	PLECO	139.6%	153.3%	158.1%	134.6%	107.9%	112.0%	108.5%	114.2%	115.8%	111.8%	103.0%	104.9%	103.0%	158.1%
	TRIC1	106.7%	113.0%	114.4%	107.3%	100.3%	105.6%	100.8%	103.2%	105.7%	104.3%	96.3%	91.5%	91.5%	114.4%
	MACLR	134.5%	141.3%	145.7%	127.2%	108.5%	103.4%	105.9%	107.8%	107.1%	106.2%	105.4%	114.3%	103.4%	145.7%
AVERAGE		160.9%	168.3%	179.3%	146.5%	117.5%	104.8%	98.4%	100.2%	99.7%	98.2%	104.0%	122.5%		
MEDIAN		137.1%	148.2%	149.9%	134.6%	111.3%	108.1%	103.1%	104.1%	105.0%	104.0%	104.2%	107.8%		
MINIMUM		12.8%	17.5%	16.1%	19.2%	23.0%	34.9%	33.6%	35.6%	41.2%	41.1%	28.8%	17.1%		
MAXIMUM		413.9%	422.5%	554.8%	325.3%	193.8%	132.4%	141.1%	153.4%	140.0%	133.0%	160.9%	273.4%		

Piedmont Stream | **Modified scenerio to achieve 80% habitat**

TAR RIVER Table shows percentage of unregulated Index B value achieved by flow scenario by month   **Monthly PHABSIM data DYALT**

Flow scenario based on monthly percentages for Piedmont modified by Tom T   using minimum AMF percentages **required to meet 80% unreg habitat for all guilds**

| | | **Green** | ≥ 80% and ≤ 120% | | **Red** | < 80 % | | **Yellow** | > 120% |

		winter	winter	winter	Spring	Spring	Spring	Summer	Summer	Summer	Fall	Fall	winter		
% AMF by month		**50%**	**50%**	**60%**	**60%**	**60%**	30%	**30%**	**30%**	**30%**	**30%**	**30%**	**40%**		
Guild		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Minimum	Maximum
Shallow	SSYOY	235.4%	311.9%	307.2%	195.1%	120.5%	123.9%	116.3%	112.4%	104.0%	106.7%	141.9%	181.6%	104.0%	311.9%
	SSVEG	177.8%	207.9%	194.0%	154.1%	115.6%	115.8%	111.6%	109.9%	104.2%	105.3%	130.4%	153.5%	104.2%	207.9%
	SSWOOD	177.9%	207.9%	194.0%	154.1%	115.6%	115.8%	111.6%	109.9%	104.2%	105.3%	130.4%	153.5%	104.2%	207.9%
	SSCOARSE	176.2%	204.4%	208.4%	161.4%	122.4%	106.6%	107.6%	108.4%	107.2%	104.4%	124.2%	141.0%	104.4%	208.4%
	SSFINENC	156.9%	175.2%	163.3%	139.4%	113.0%	111.8%	109.6%	109.2%	105.0%	105.0%	124.0%	141.0%	105.0%	175.2%
	SFLOWVEL	190.4%	228.4%	233.8%	173.9%	122.9%	109.4%	109.0%	112.1%	109.7%	105.9%	124.4%	148.1%	105.9%	233.8%
	SFMODVEL	181.4%	212.9%	194.8%	153.6%	115.0%	132.4%	134.5%	145.4%	132.4%	126.5%	153.0%	166.3%	115.0%	212.9%
	SFHIVEL	204.8%	226.3%	216.7%	169.6%	135.7%	120.0%	123.8%	131.6%	129.4%	126.3%	126.1%	166.7%	120.0%	226.3%
Deep	DSCOV	99.5%	99.7%	104.5%	103.2%	101.3%	99.9%	102.6%	103.3%	105.5%	104.1%	100.6%	101.8%	99.5%	105.5%
	DSCOV2	118.1%	121.1%	118.9%	113.5%	106.3%	108.7%	108.3%	108.3%	107.0%	106.5%	110.4%	114.9%	106.3%	121.1%
	DSNC	138.9%	143.4%	134.0%	124.8%	110.6%	109.8%	112.3%	112.3%	110.2%	109.9%	112.1%	126.1%	109.8%	143.4%
	DFFINE	108.7%	111.4%	115.5%	111.7%	106.8%	90.3%	93.7%	95.0%	99.9%	96.9%	90.4%	97.6%	90.3%	115.5%
	DFGRCOB	35.9%	33.2%	54.8%	59.8%	76.7%	34.9%	34.9%	36.8%	42.3%	42.4%	30.0%	25.6%	25.6%	76.7%
	DFCOARSE	84.2%	82.1%	87.8%	90.7%	95.6%	84.4%	80.9%	81.2%	94.6%	92.2%	77.8%	80.6%	77.8%	95.6%
Other	AMSS2			94.0%	94.0%	100.0%								94.0%	100.0%
	ROBRHS														
	GORHA	93.4%	92.4%	94.6%	96.4%	100.0%	99.4%	100.0%	100.0%	100.0%	100.0%	99.1%	93.8%	92.4%	100.0%
	GORHJ	110.1%	114.3%	115.2%	110.5%	108.8%	105.5%	101.3%	100.0%	100.0%	100.0%	111.8%	104.1%	100.0%	115.2%
	AMSS4														
	EPHEM	138.9%	155.9%	149.5%	123.4%	100.0%	107.4%	111.8%	114.5%	111.7%	110.9%	111.1%	117.4%	100.0%	155.9%
	PLECO	137.9%	147.9%	142.1%	121.0%	100.0%	112.0%	116.3%	118.2%	115.8%	112.1%	116.8%	121.8%	100.0%	147.9%
	TRIC1	111.2%	113.9%	113.9%	106.9%	103.4%	105.6%	107.7%	106.5%	105.7%	104.5%	108.7%	106.9%	103.4%	113.9%
	MACLR	123.6%	134.3%	130.7%	114.1%	100.0%	103.4%	105.9%	107.8%	107.1%	106.2%	105.4%	110.5%	100.0%	134.3%
AVERAGE		140.1%	156.2%	150.8%	127.2%	108.1%	104.8%	105.0%	106.1%	104.8%	103.6%	111.4%	122.6%		
MEDIAN		138.4%	145.6%	134.0%	121.0%	106.8%	108.1%	108.6%	108.8%	105.6%	105.3%	111.9%	119.6%		
MINIMUM		35.9%	33.2%	54.8%	59.8%	76.7%	34.9%	34.9%	36.8%	42.3%	42.4%	30.0%	25.6%		
MAXIMUM		235.4%	311.9%	307.2%	195.1%	135.7%	132.4%	134.5%	145.4%	132.4%	126.5%	153.0%	181.6%		