Past efforts to look at habitat availability and fish use in the Mainstem Siletz River during the spring, summer and fall seasons

Who uses the mainstem Siletz River during these seasons?

Salmon, steelhead trout, cutthroat trout, Pacific lamprey, brook lamprey, and fresh water mussels to name a few.

Juvenile salmonids have a significant presence in the spring and early summer

Adult summer steelhead pass through as well as hold and spawn

Adult chinook pass through, hold, and or spawn

Pacific lamprey adults hold and spawn. Juveniles rear.

Who do we focus most of our time and resources on?

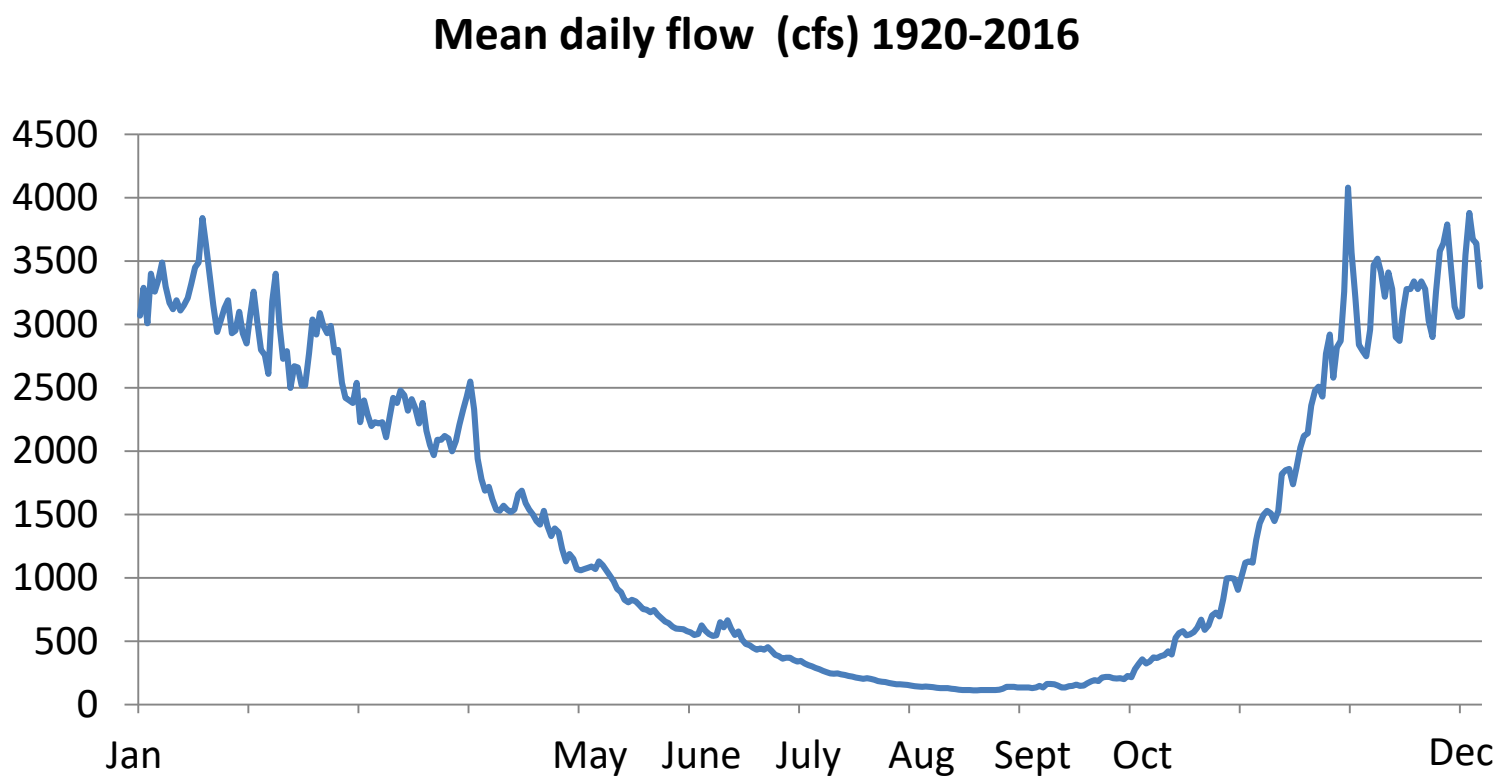
Salmon, steelhead and cutthroat

Under current conditions when is the mainstem “most” habitable for adults relative to flow and temperature?

Mid October to Mid June

When would we like the mainstem to be more habitable specific to low flow and temperature?

Mid June through mid October


Mean daily flow (cfs) 1920-2016
4500
4000
3500
3000
2500
2000
1500
1000
500
0
Jan
May
June
July
Aug
Sept
Oct
Dec

Under current conditions when is the mainstem “most” habitable for juveniles relative to flow and temperature?

Mid May to Mid June

When would we like the mainstem to be more habitable specific to flow and temperature?

During our late winter high volume high velocity flow period and during our summer low volume low velocity flow period

During our summer high temperature period

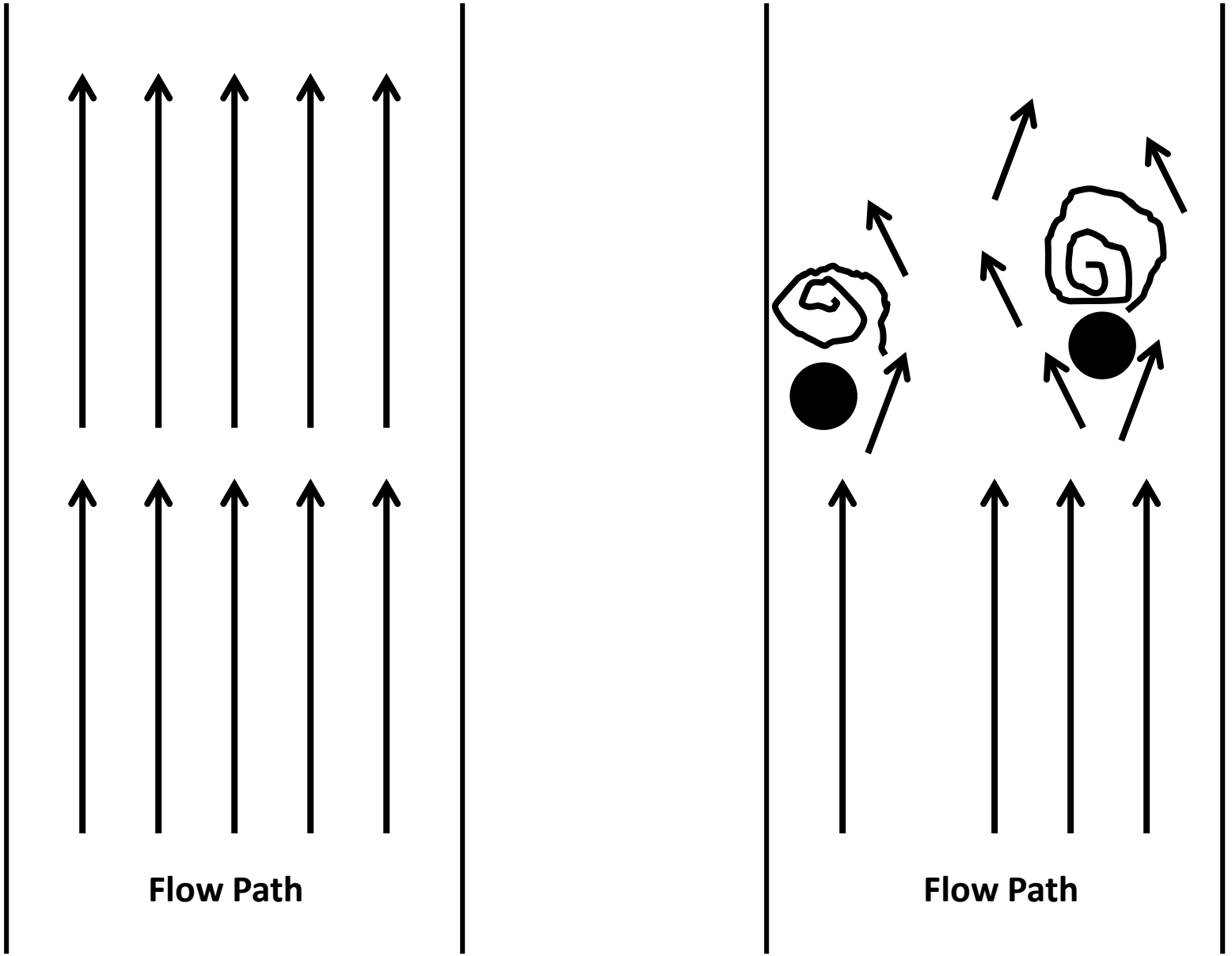
What do we need to make the mainstem more habitable during these seasons?

More complex late winter early spring juvenile rearing habitat -i.e. logs etc

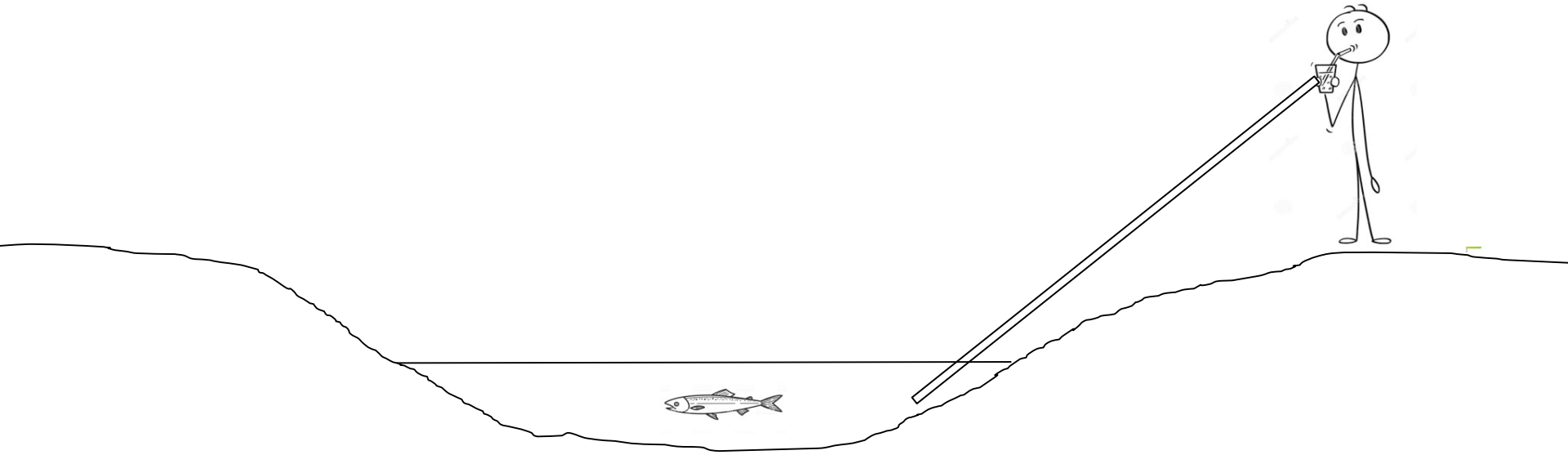
Fewer water withdrawals during the summer season allowing for more flow availability for both adult and juvenile fish

Improved shading on tributary systems to allow the mainstem to be more resilient to variability in climate patterns during the summer and fall seasons

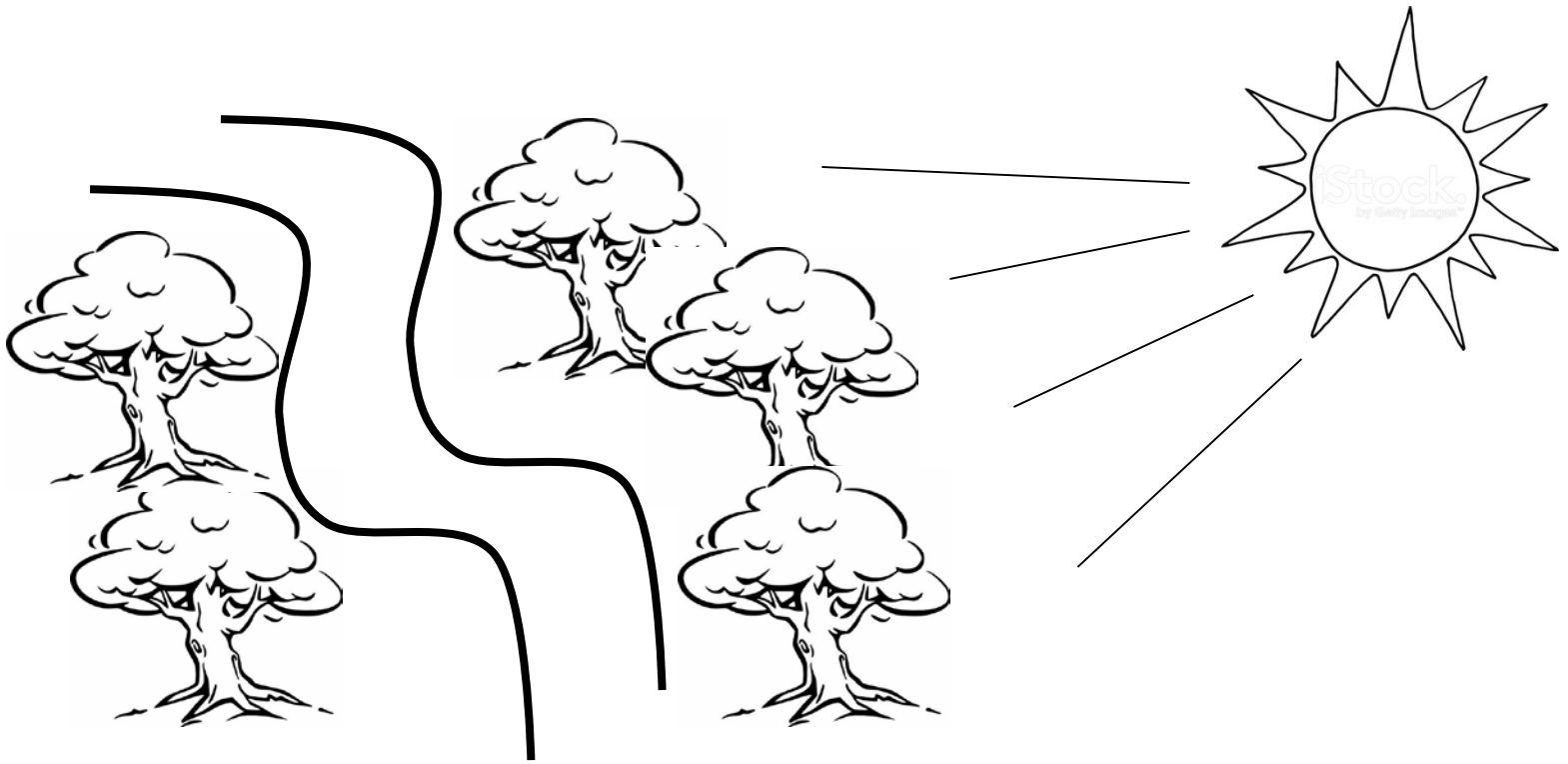
More complex late winter early spring juvenile rearing habitat -i.e. logs etc



Fewer water withdrawals during the summer season allowing for more flow availability for both adult and juvenile fish

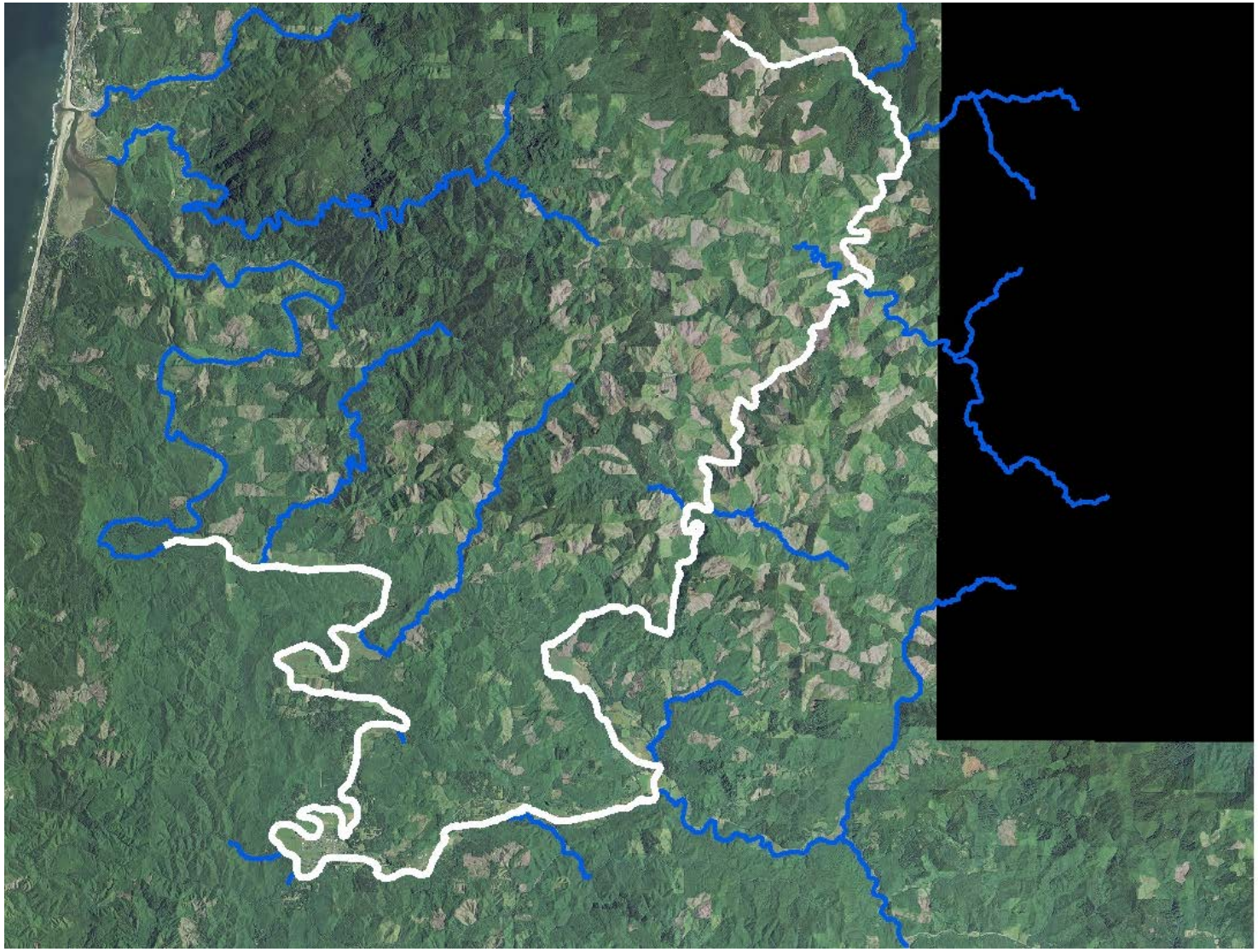


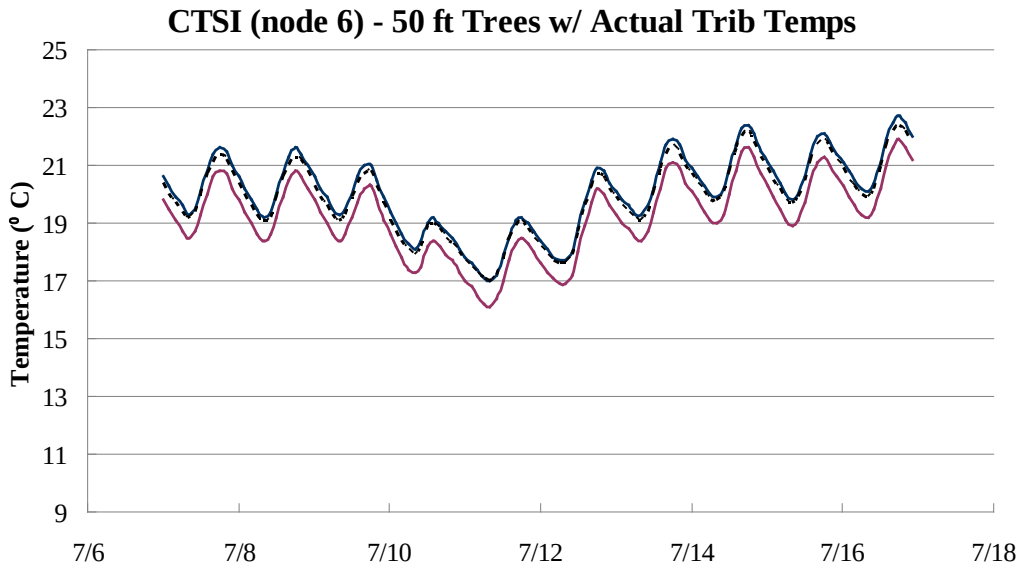
Improved shading on tributary systems to allow the mainstem to be more resilient to variability in climate patterns during the summer and fall seasons

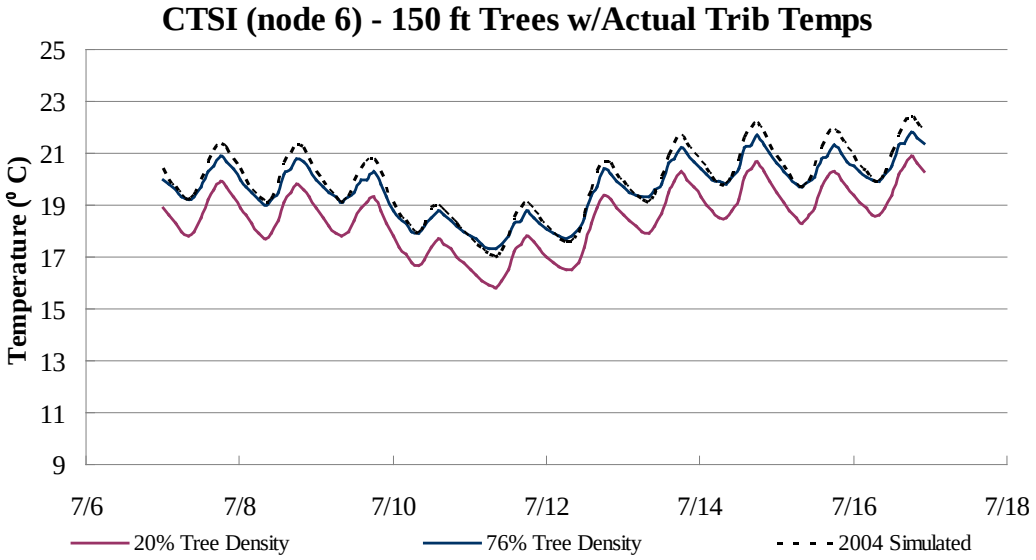


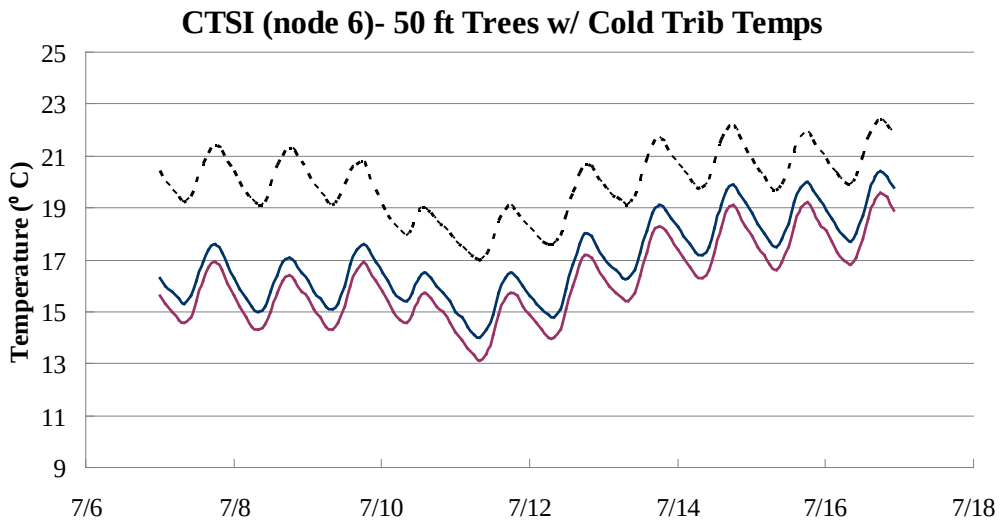
Stop

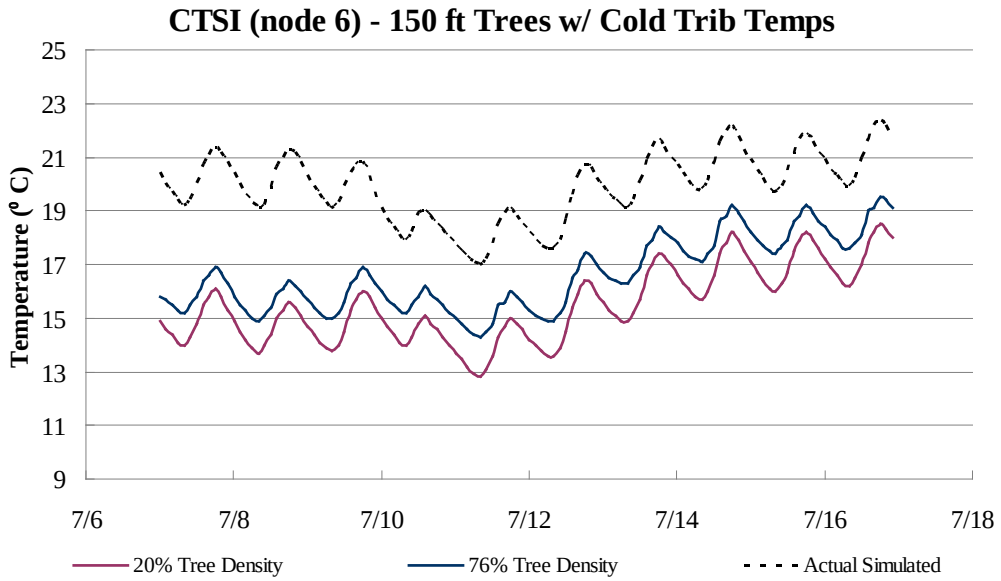
Mainstem Siletz River and Tributary Temperature Modeling
Predicted Peak Summer Temperatures
2001 and 2004



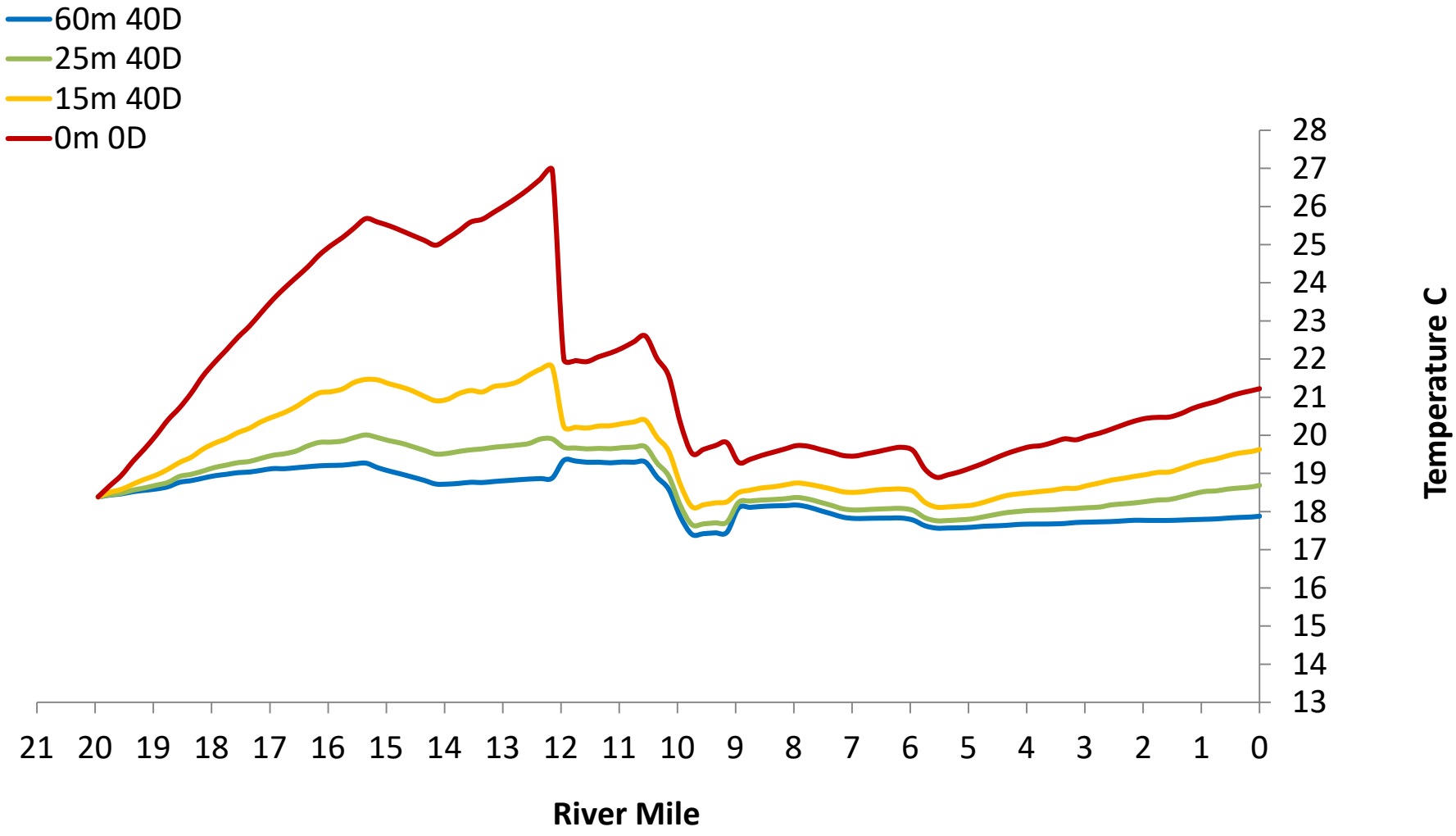

CTSI (node 6) - 50 ft Trees w/ Actual Trib Temps
Temperature (º C)
25
23
21
19
17
15
13
11
9
7/6
7/8
7/10
7/12
7/14
7/16
7/18


CTSI (node 6) - 150 ft Trees w/Actual Trib Temps
Temperature (º C)
25
23
21
19
17
15
13
11
9
7/6
7/8
7/10
7/12
7/14
7/16
7/18
20% Tree Density
76% Tree Density
2004 Simulated

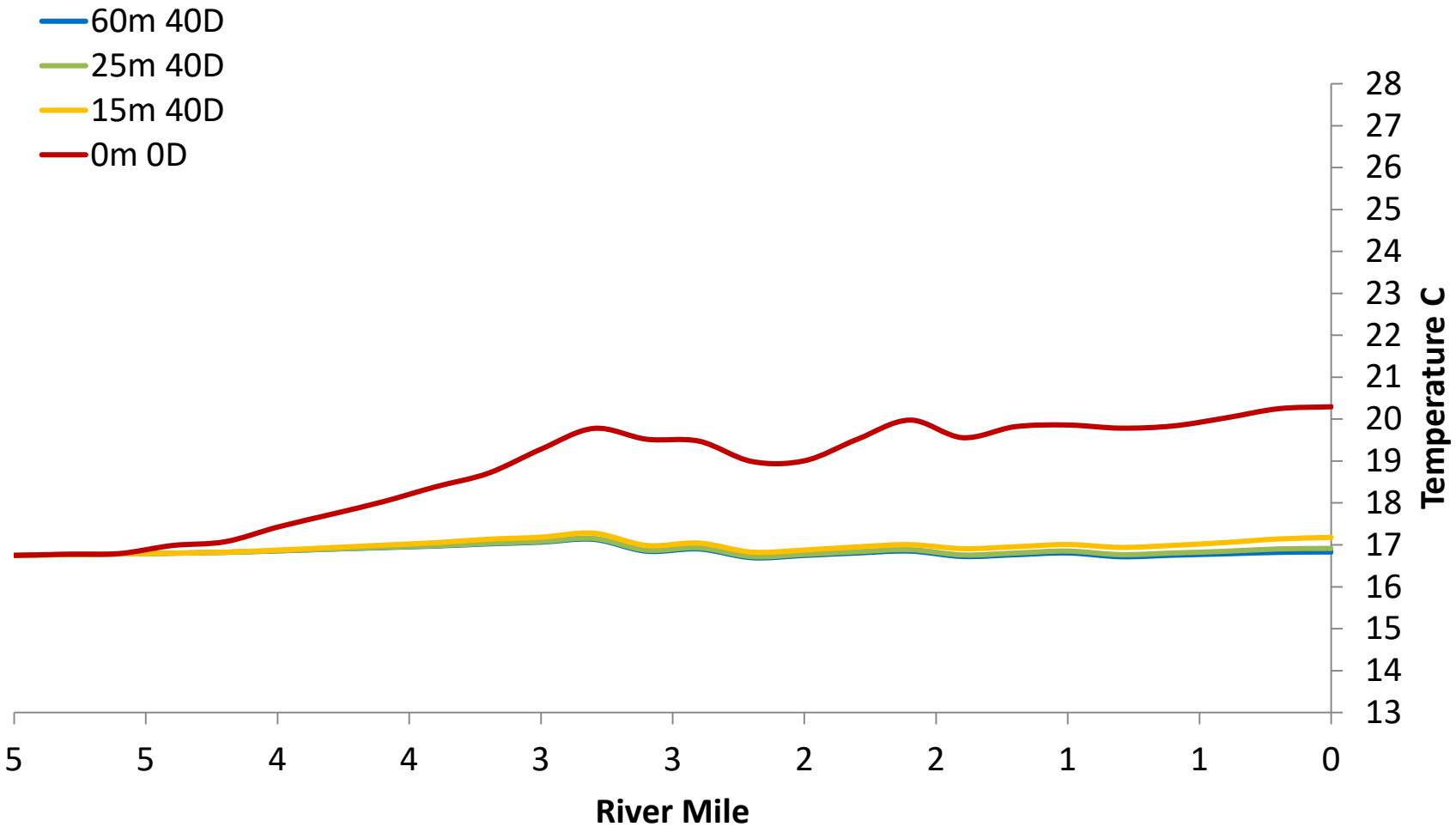

CTSI (node 6)- 50 ft Trees w/ Cold Trib Temps
Temperature (º C)
25
23
21
19
17
15
13
11
9
7/6
7/8
7/10
7/12
7/14
7/16
7/18


CTSI (node 6) - 150 ft Trees w/ Cold Trib Temps
Temperature (º C)
25
23
21
19
17
15
13
11
9
7/6
7/8
7/10
7/12
7/14
7/16
7/18
20% Tree Density
76% Tree Density
Actual Simulated

Rock Creek
Predicted Peak Summer Water Temperatures
With Varying Tree Heights/Shade



Sams Creek
Predicted Peak Summer Water Temperatures
With Varying Tree Heights/Shade



Euchre Creek
Predicted Peak Summer Water Temperatures
With Varying Tree Heights/Shade