

Fisheries Management in the St. George River



GEORGE'S RIVER
TROUT UNLIMITED



St. George River – 2013 Regulations

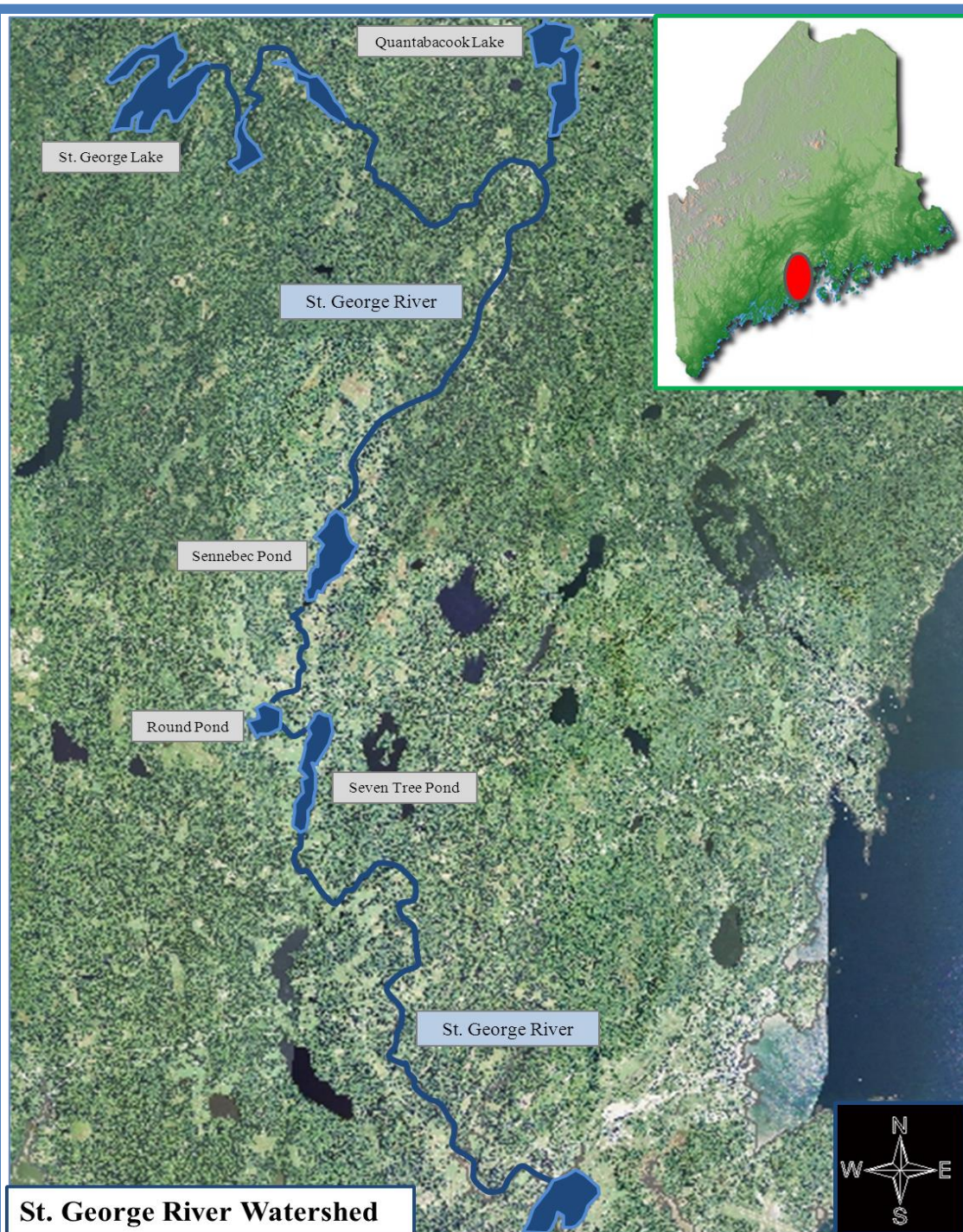
From St. George Lake in Liberty, downstream to the head of tide in Warren.

-Open to open water fishing from **January 1 – December 31.**

-Minimum length on trout: **12 inches.**

-Total bag limit on salmon, trout, and togue: **1 fish.**





St. George River Watershed

St. George River – Stocking History (2010-12)

	2010		2011		2012	
Town Stocked	BNT	BKT	BNT	BKT	BNT	BKT
Searsmont	1530 SY	1300 SY	500 SY	1500 SY	0	1250 SY
Appleton	1020 SY	400 SY	250 SY	1000 SY	0	1000 SY
Union	0 SY, 150 FY)	0	750 SY, 400 FY	0	500 SY, 400 FY	0
Warren	1000 SY, 1200 FY	0	500 SY, 800 FY	0	1000 SY, 800 FY	0

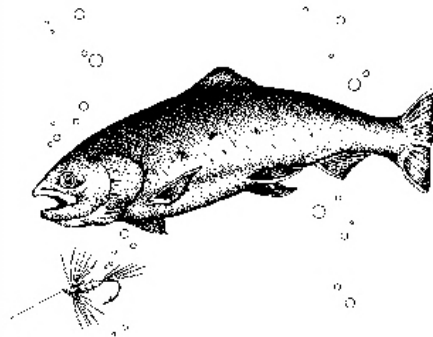


St. George River – Temp & Oxygen

Water Temperature & Dissolved Oxygen Requirements

In order to persist for sustained periods, brook and brown trout must meet the following requirements for **temperature** and **dissolved oxygen**:

	Brook Trout	Brown Trout
Temperature (°F)	≤ 68	≤ 70
Dissolved Oxygen (mg/L)	≥ 5.0	≥ 5.0



St. George River – Spring-Yearling vs. Fall-Yearling

	Brook Trout		Brown Trout	
	SY	FY	SY	FY
Mean Length (in)	9.8	12.4	10.1	13.0
Mean Weight (lbs)	0.33	0.88	0.35	0.84
Legal to Harvest?	N	Y	N	Y





St. George River – Water Temperature



July 31 – October 5, 2012 – 67 total days

Mean Temp	21.6 C (70.8 F)
Max Temp	28.3 C (82.9 F)
Min Temp	15.2 C (59.4 F)

July 31 – August 31, 2012 – 32 total days

Mean Temp	24.2 C (75.6 F)
Max Temp	28.3 C (82.9 F)
Min Temp	21.7 C (71.0 F)

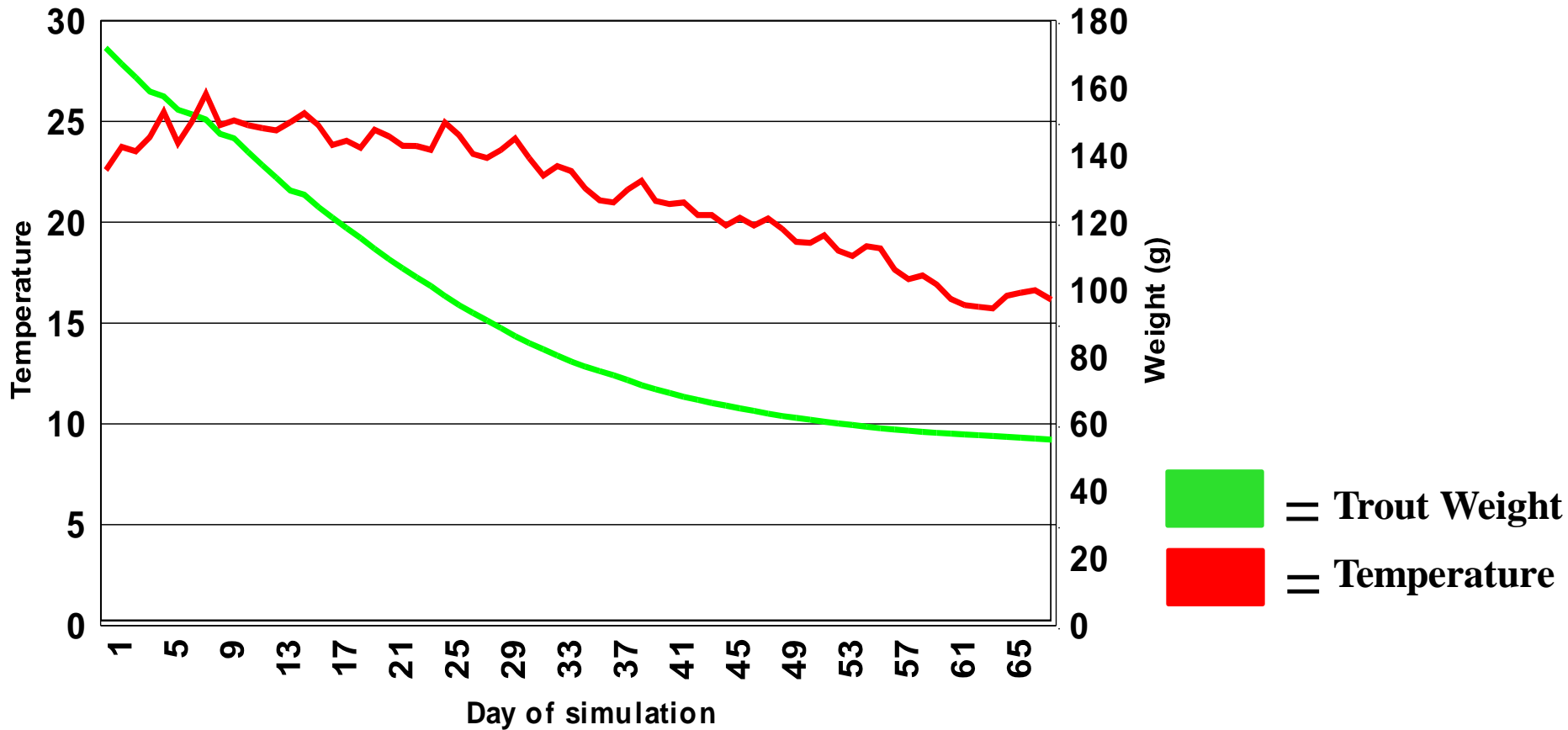
St. George River – Trout & Water Temp

	Postive Growth Threshold(°C)	# of Days ≥ Positive Growth Threshold
Brook Trout	18.0 - 22.0 (~65-72 F)	57
Brown Trout	18.3 - 23.9 (~65-75 F)	57
Rainbow Trout	20.0 - 25.0 (~68-77 F)	50

	Upper Temperature Tolerance (°C)	# of Days ≥ Upper Temp Tolerance
Brook Trout	24.0 - 26.5 (~75-80 F)	30
Brown Trout	24.2 - 26.3 (~76-80 F)	30
Rainbow Trout	24.2 - 26.3 (~76-80 F)	30

*out of 67 days (7/31 – 10/5/12)

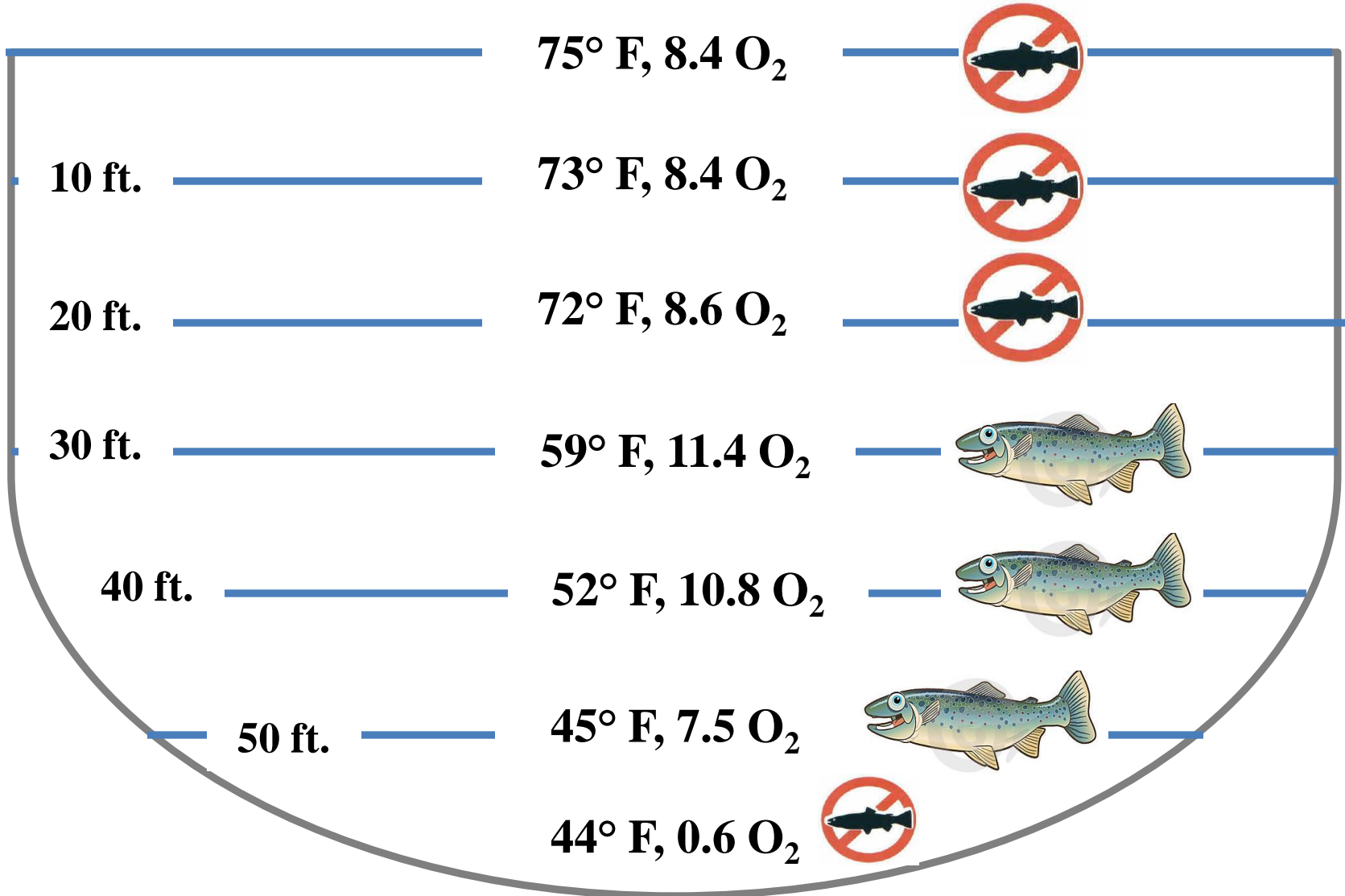
St. George River – Brown Trout Bioenergetics



- Based on the mean daily temperature in the St. George River from July 31st to Oct 5th, 2012, a typical stocked SY BNT loses nearly **70%** of its initial weight (175 grams to 55.4 grams)

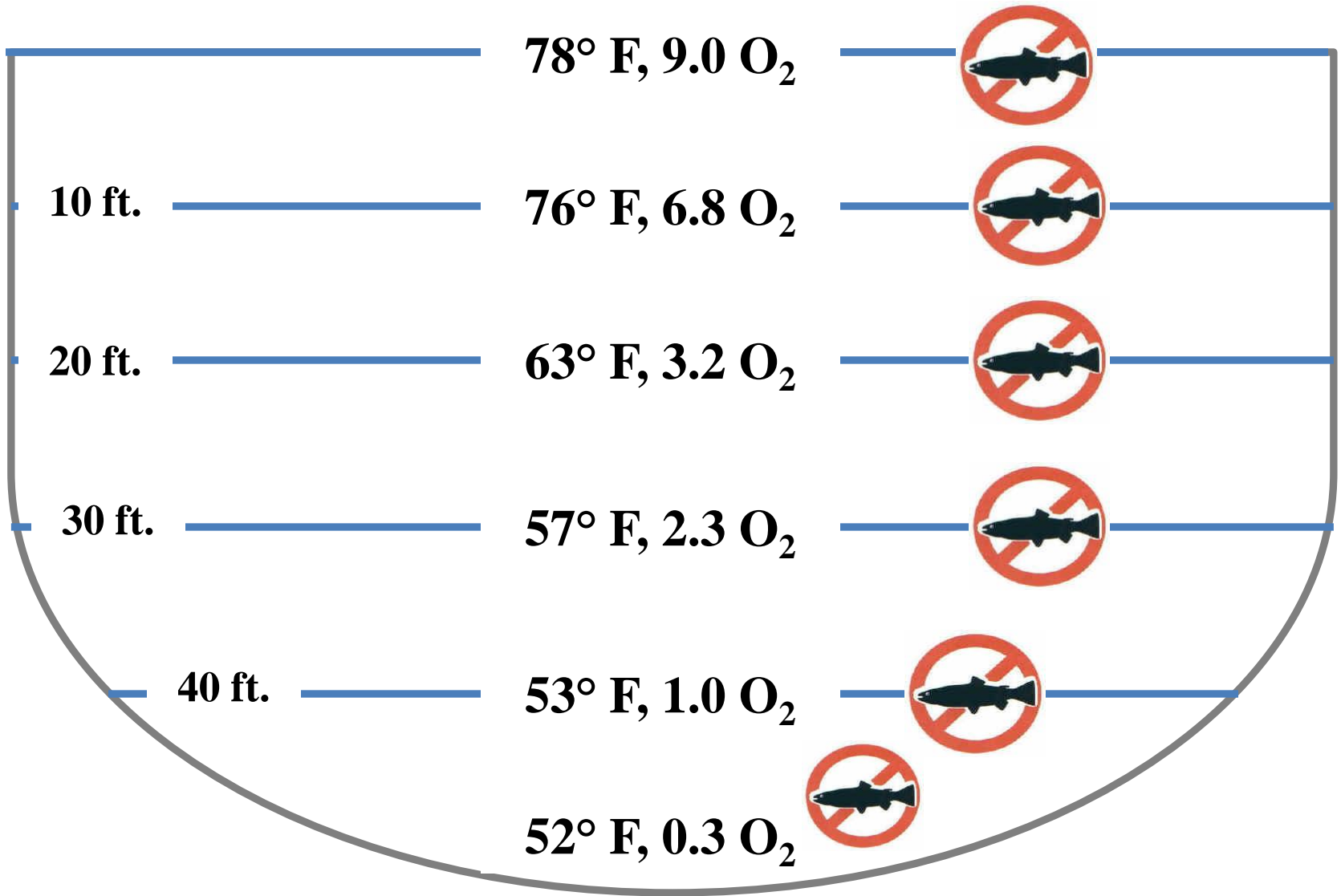
St. George River – Lake St. George

Temperature & Dissolved Oxygen Profile – 7/29/01



St. George River – Seven Tree Pond

Temperature & Dissolved Oxygen Profile – 7/23/12



St. George River – Lake Fish Assemblage

Gillnetting Fish Collection – July 2012

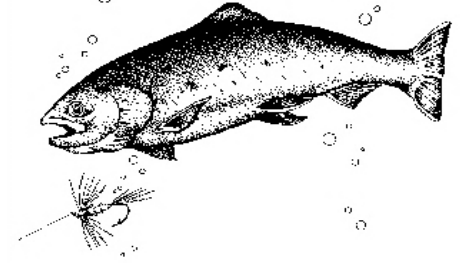
Fish Species	Quantabacook	Sennebec	Seven Tree
White Sucker	45	90	94
White Perch	42	52	32
Smallmouth Bass	3	18	12
Largemouth Bass	1	0	1
Pumpkinseed Sunfish	5	0	0
Rainbow Smelt	1	0	0
Sea-run Alewife	0	0	1
Brown Bullhead	0	0	1
Brook Trout	9	6	0
Brown Trout	1	0	0

St. George River – Current Management

- The watershed is more suited to warmwater species (e.g. smallmouth bass, white suckers) than coldwater species.
- Trout habitat throughout the St. George River watershed is severely limited due to temp. and dissolved oxygen issues.
- A small number of trout may survive summer months by seeking out cold water refuge provided by tributaries
- Many of the tributaries entering the main stem of the St. George host wild brook trout populations.
- There are several options concerning future management of the trout fishery in the St. George River...

St. George River – Future Management Options

Option #1:



- Manage the St. George River as a put-and-take/put-grow-take fishery.
- Maintain current fishing regulations.
- Continue stocking BKT and BNT.
 - Stock larger, fall yearling trout; eliminate smaller spring yearlings.
- Stock upper river with larger, fall yearling BKT.
- Stock lower river with fall yearling BKT and BNT.
- Stock both sections with surplus fish when available.

St. George River – Future Management Options

Option #2:

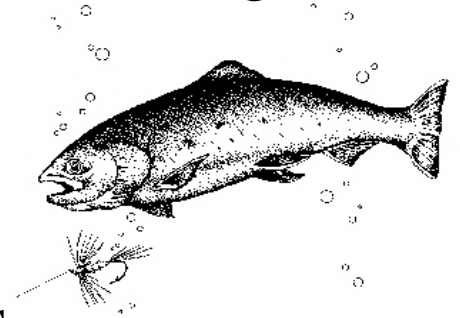
- Manage the St. George River as a put-and-take/put-grow-take fishery.
- Maintain current fishing regulations.
- Continue stocking BKT and BNT.
 - Stock larger, fall yearling trout; eliminate smaller spring yearlings.
- Stock lower river with BKT and BNT.
- Stock upper river with spring yearling RBT.
 - May provide a better angling opportunity to all users.
 - Would provide the Dept. with a tool to evaluate year-to-year survival.



St. George River – Future Management Options

Option #3:

- Focus on enhancing wild BKT populations in the tributaries.
- Potentially create a seasonal fishery in the St. George River for wild BKT.
- Would require:
 - Cease stocking of competing species.
 - Identify habitat issues within the tributaries.
 - More restrictive regulations on the tributaries.



St. George River – Discussion



- Thoughts, comments, concerns, ideas, etc.?



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