

# Appendices

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**For detailed information and explanation of the policy behind basin planning or the tools, activities, stressors and pollutants discussed herein please refer to the**



## Appendix A. Existing Uses

### Boating

Waterbody	Reach	Public Access / Put In	Lat.	Long.	Take Out	Lat.	Long.
<b>Deerfield River Watershed</b>							
Deerfield River	Searsburg Dam to Harriman Reservoir Class III, 4.5 miles	Below Searsburg Dam	42.90132	-72.95037	Woods Rd., Wilmington	42.865095	-72.90313
Deerfield River	Somerset Rd. bridge to Searsburg Reservoir, Class II, 5.0 miles	Somerset Rd. bridge & Castle Brook Rd.	42.950574	-72.98661	Searsburg Reservoir	42.902203	-72.95029
East Branch Deerfield River	Somerset Reservoir to Searsburg Reservoir Class I-II, 6 miles	Below Somerset Dam	42.972011	-72.949259	Searsburg Reservoir	42.902203	-72.95029
West Branch Deerfield River	Heartwellville to Readsboro Village Class V, 3.0 miles to confluence/ 5.4 miles to Tunnel St.	Howe Pond Rd. end, Readsboro	42.802883	-72.974512	Tunnel St., Readsboro	42.745236	-72.92647
North Branch Deerfield River	West Dover to Harriman Reservoir, Class I-II, 7.0 miles	Rte. 100 ROW	42.922603	-72.843376	Rte. 100	42.868486	-72.90413
Green River	Stage Rd. to West Leyden, MA, Class II - III, 6.8 miles	Green River crib dam, Stage Rd.	42.775614	-72.667072	W. Leyden Rd., West Leyden, MA	42.698389	-72.66512
North River	Halifax Gorge: Route 112 to Route 112 Class IV(V) 3 mi	Rte. 112, 3/4 mi. north of Stowe Mountain Rd.	42.7463	-72.7436	Jacksonville Rd., Colrain, MA	42.719467	-72.70807
<b>Connecticut River Watershed</b>							
Connecticut River	Old Ferry Rd. to Vernon Dam Class I -II, 8 mi.	Putney Landing	42.893022	-72.536047	Gov. Hunt Recreation Area	42.770916	-72.5153
Connecticut River	Vernon Dam to Turners Falls Class I -II, 21.5 mi.	Gov. Hunt Recreation Area	42.770916	-72.515304	Pauchaug Brook Access, MA Fish and Wildlife	42.715516	-72.45259
	<i>* see Fishing section for other boat launch listings</i>						

## Contact Recreation

Waterbody	Site	Location of Use	Lat.	Long.	Town	Ownership
<b>Deerfield River Watershed</b>						
Green River	Crib Dam	Timber Crib Dam below covered bridge	42.77547	-72.66765	Guilford	private
East Branch North River	Halifax Gorge		42.7463	-72.7436	Halifax	private
Beaver Brook Falls	??????????				Wilmington	
Branch Brook Falls	??????????				Halifax	
Broad Brook Falls	??????????				Guilford	
<b>Connecticut River Watershed</b>						
Whetstone Brook	Living Memorial Park/ Farmer's Market	Below LMP tennis BB court and behind Farmer's Market site	42.84885	-72.58683	Brattleboro	Town Of Brattleboro
Broad Brook	Fort Dummer State Park	small parking area and trail used to access a swimming hole on Broad Brook	42.813618	-72.563209	Guilford	VDFRPR

## Fishing

Waterbody	Reach	Town
<b>SPECIAL FISHERING REGULATIONS</b>		
<b>RIVERS</b>	<i>NONE</i>	
<b>LAKES</b>		
Somerset Lake		Somerset

Harriman Lake	Wilmington/Whitingham
Red Mill Pond	Woodford
South Pond	Marlboro

## Boat Access Areas

Waterbody	Town	Access Name	Lat.	Long.
<b><i>Deerfield River Watershed</i></b>				
Lake Raponda	Wilmington	Lake Raponda	42.883935	-72.820095
Lake Sadawga	Whitingham	Lake Sadawga	42.785752	-72.876763
Red Mill Pond	Woodford	Red Mill Pond	42.890613	-73.028055
Somerset Reservoir	Somerset	Somerset Dam	42.97378	-72.942294
Grout Pond	Stratton	Grout Pond Recreation Area	43.04654	-72.950991
Searsburg Reservoir	Searsburg	Searsburg Dam	42.90227	-72.950397
Harriman Reservoir	Wilmington	Medburyville	42.868452	-72.904024
Harriman Reservoir	Wilmington	Mt. Mills East	42.864064	-72.896169
Harriman Reservoir	Wilmington	Castle Hill	42.852133	-72.884297
Harriman Reservoir	Whitingham	Harriman Dam	42.791514	-72.916775
Harriman Reservoir	Whitingham	Sawyer's Boat Launch	42.790582	-72.890096
Sherman Reservoir	Readsboro	Harriman Powerhouse	42.758938	-72.934849
Sherman Reservoir	Readsboro	Sherman Boat Launch	42.745267	-72.926452
<b><i>Connecticut River Watershed</i></b>				
South Pond	Marlboro	South Pond	42.846468	-72.709859
Vernon Hatchery Pond	Vernon	Vernon Hatchery Pond	42.743842	-72.500175
Weather Head Hollow Pond	Guilford	Weatherhead Hollow Pond	42.737938	-72.614324
Connecticut River	Brattleboro	Old Ferry Road	42.893154	-72.53611
Connecticut River	Putney	Putney Landing	42.96167	-72.520875
Connecticut River	Putney	Dummerston	42.957458	-72.52736

## Water Supply

Waterbody	Reach	Supply for:	Acres
<b><i>Deerfield River Watershed</i></b>			
Haystack Pond	Haystack Pond and all waters within its watershed in the Town of Wilmington	Village of Wilmington water supply	36 acres
Howe Pond and Howe Pond Brook	Howe Pond and all waters within its watershed. Howe Pond Brook and all waters within its watershed above the water intake, which is located approx. 1.1 miles downstream from Howe Pond. Both pond and brook are located in the Town of Readsboro.	Village of Readsboro water supply	62 acres
<b><i>Connecticut River Watershed</i></b>			
Pleasant Valley Reservoir	Pleasant Valley Reservoir and all waters in its watershed in the Town of Brattleboro.	Village of Brattleboro water supply	25 acres

## Appendix B. Dams in the Deerfield and Connecticut River Watersheds

Basin	Dam Name	Stream	Town	Surface Acres	Dam Status	Purpose	Hazard Class
<b>Deerfield River</b>							
	Spruce Lake	Beaver Brook-TR	Wilmington	15	In Service	Recreation	Low
	Lake Raponda	Bill Brook	Wilmington	116	In Service	Recreation	Low
	Binney Brook	Binney Brook	Wilmington		Breached		
	Mirror Lake	Cold Brook-TR	Wilmington	3	In Service	Recreation	Low
	West Lake	Cold Brook-TR	Wilmington	11.6		Recreation	High
	Searsburg	Deerfield River	Searsburg	25	In Service	Hydroelectric	High
	Harriman	Deerfield River	Whitingham	2157	In Service	Hydroelectric	High
	Wilmington Reservoir	Deerfield River-OS	Wilmington				
	Somerset	East Branch Deerfield River	Somerset	1597	In Service	Hydroelectric	High
	East Branch	East Branch Deerfield River	Stratton				
	Ryder Pond	East Branch North River	Whitingham	14	In Service	Recreation	Significant
	Gates Pond	East Branch North River-TR	Whitingham	30	Breached (Partial)		Low
	Jacksonville Pond	East Branch North River-TR	Whitingham	17	In Service	Other	High
	Laurel Lake	East Branch North River-TR	Whitingham	18	In Service		Low
	North Branch Fire District No. 1	Ellis Brook-TR-OS	Dover	7	In Service	Other	Significant
	Ricker	Glastenbury River	Glastenbury				
	Sibley	Green River	Guilford				Low
	Gates Mill	Green River	Guilford		Breached		
	Harrisville Mill	Green River	Halifax	2	In Service	Hydroelectric	
	Deer Park Pond	Green River-TR	Halifax	22	In Service	Recreation	Low

Basin	Dam Name	Stream	Town	Surface Acres	Dam Status	Purpose	Hazard Class
<b>Deerfield River</b>							
	Shippee Pond	Hager Brook	Whitingham	24	In Service	Recreation	Significant
	Lake Sadawga	Harriman Reservoir-TR	Whitingham	194	In Service	Recreation	High
	Lake Sadawga West Dike	Harriman Reservoir-TR	Whitingham	202	In Service	Recreation	High
	Howe Pond Upper	Howe Pond Brook	Readsboro				
	Howe Pond Lower	Howe Pond Brook	Readsboro	56	Breached (Partial)	Recreation	Low
	Lake Clara	Lake Sadawga-TR	Whitingham	15	In Service	Recreation	High
	Little Pond	Little Pond Brook	Woodford				Low
	North	No. 9 Brook-TR	Whitingham	26	In Service	Recreation	Low
	Snow Lake	North Branch Deerfield River	Dover	8	In Service	Recreation	High
	South Pond	Pond Brook	Marlboro		Breached		Low
	Billings Pond	Rake Branch	Searsburg		Breached		Low
	Red Mill Pond	Red Mill Pond Brook	Woodford	5	In Service		Low
	Adams Reservoir	Red Mill Pond Brook	Woodford	24	In Service	Recreation	Significant
	Red Mill Pond Dike	Red Mill Pond Brook	Woodford	5	In Service		Low
	Stamford Pond	Reservoir Brook	Stamford				Low
	Guilford-7	Thorne Brook	Guilford		Deleted		
	Heartwellville	West Branch Deerfield River	Readsboro		Breached		

Basin	Dam Name	Stream	Town	Surface Acres	Dam Status	Purpose	Hazard Class
<b>Connecticut River</b>							
	Vernon	Connecticut River	Vernon		In Service	Hydroelectric	
	Franklin Site No. 1	Falls River-TR	Guilford	4	In Service		Low
	Sweet Pond	Keets Brook	Guilford	18	In Service	Recreation	High
	Vernon Fish Hatchery Pond	Newton Brook	Vernon	8	In Service	Recreation	Low
	Weatherhead Hollow Pond	Shattuck Brook	Guilford	33	In Service	Recreation	Significant
	Holden And Martin	Whetstone Brook	Brattleboro		Breached		
	Chestnut Hill Reservoir	Whetstone Brook	Brattleboro	1	Not in Use	Water Supply	High
	Mill Pond	Whetstone Brook	Marlboro	8	In Service	Recreation	Significant
	Hidden Lake Dike	Whetstone Brook	Marlboro	19	In Service	Recreation, Other	Low
	Pleasant Valley Reservoir	Whetstone Brook-TR	Brattleboro	25	In Service	Water Supply	High

## Appendix C. Fisheries Assessment Summary of the Deerfield River Watershed (Basin 12)

### Deerfield River Mainstem

Upper Mainstem: headwaters to Searsburg Reservoir Dam; 88.5 mi<sup>2</sup>. Fisheries throughout Upper Deerfield River Sub-basin are limited by water chemistry and temperatures. Water is tannic, poorly buffered and hence of low productivity. Summer water temperatures in the unshaded mainstem and larger tributaries impairs habitat for coldwater fishes, such as trout. Somerset and Searsburg reservoirs are operated as part of a larger hydroelectric generation complex. These impoundments are subject to significant seasonal water level drawdowns. Additionally, fisheries and aquatic productivity in standing waters is influenced by the geology, water chemistry and natural and/or regulated hydrology. The East Branch below Somerset Reservoir Dam has minimum flow requirements prescribed under the FERC license. Because of the deep water release from the reservoirs, stream water temperatures are unseasonably cool so much so as to impair overall aquatic productivity and trout growth.

Mainstem: wild brook trout; stocked brook trout.

Glastenbury River: wild brook trout.

East Branch: wild brook and brown trout.

Misc. tributaries (e.g. Castle Brook, Rake Branch): wild brook trout.

Lakes, Ponds & Reservoirs

Grout Pond: smallmouth bass, rock bass, Pumpkinseed, chain pickerel, brown bullhead, yellow perch.

Somerset Reservoir: smallmouth bass, rock bass, pumpkinseed, chain pickerel, brown bullhead, yellow perch; stocked brook trout. TransCanada controlled boat launch and picnic area.

Adams Reservoir: brown bullhead; stocked brook trout. Woodford State Park.

Red Mill Pond: stocked brook trout. VFWD access area present.

Searsburg Reservoir: stocked brook trout.

Middle Mainstem: Searsburg Reservoir Dam to Harriman Reservoir Dam; 184 mi<sup>2</sup>. As for the Upper Sub-basin aquatic productivity in the Middle Sub-basin is greatly influenced by low productivity and seasonal warm water temperatures, particularly in the Deerfield River mainstem. The flow regime in this reach is also greatly influenced

by hydroelectric operations being most of the reach is bypassed by a penstock connecting Searsburg Reservoir Dam to the Searsburg Station powerhouse. Flows are artificially regulated with minimum flow requirements. Harriman Reservoir is operated as part of a larger hydroelectric generation complex and is subject to significant seasonal water level drawdowns.

Mainstem: wild brook and brown trout; stocked rainbow trout.

Bond Brook: wild brook trout.

Vose Brook: wild brook trout.

Heather Brook: wild brook trout.

North Branch: wild brook and brown trout; stocked brook trout.

Blue Brook: wild brook and brown trout.

Ellis Brook/Cheney Brook: wild brook and brown trout.

Negus Brook: wild brook and brown trout.

Bill Brook/Hall Brook: wild brook and brown trout.

Cold Brook/Haystack Brook: wild brook trout.

Beaver Brook: wild brook and brown trout.

Binney Brook: wild brook and brown trout.

No. 9 Brook: wild brook trout.

### **Lakes, Ponds & Reservoirs**

Lake Raponda: smallmouth bass, largemouth bass, rock bass, bluegill, brown bullhead, chain pickerel, yellow perch; stocked rainbow trout. VFWD boat launch and access area.

Lake Sadawga: largemouth bass, rock bass, pumpkinseed, brown bullhead, chain pickerel, yellow perch. VFWD boat launch and access area.

Lake Clara: status unknown.

Harriman Reservoir: wild brown trout, rainbow smelt, smallmouth bass, rock bass, pumpkinseed, chain pickerel; stocked brook, brown and rainbow trout, landlocked salmon, lake trout. TransCanada controlled boat launches and picnic areas.

Lower Mainstem: Harriman Reservoir Dam to Massachusetts State Line; 233 mi<sup>2</sup>. The Lower Mainstem includes the 4.5 mile Harriman Bypass, a section of river where flows from Harriman Reservoir Dam is diverted to Harriman Station powerhouse at the head of Sherman Reservoir via a penstock. The VFWD and USFS restored a wild brook trout population and fishery to the reach following the 1997 FERC relicensing of the project. Since FERC relicensing minimum flows are required in Harriman Bypass. Bypass flows

are primarily from a deepwater release from Harriman Reservoir, therefore the thermal regime of the bypass at least as far downstream as the confluence with the West Branch is very cold and inhibits aquatic productivity and trout growth. Sherman Reservoir straddled the VT-MA state line. There is no fishing license reciprocity agreement between the two states, as there is for VT and NH, therefore the reservoir is managed under two sets of regulations.

Mainstem: wild brook and brown trout.

Toby Brook: wild brook trout.

West Branch: wild brook and brown trout; stocked brook trout.

Reservoir Brook: wild brook trout.

Yaw Pond Brook: wild brook trout.

“Heartwellville” Brook: wild brook and brown trout.

Lamb Brook: wild brook trout.

South Branch: wild brook and brown trout.

#### Lakes, Ponds & Reservoirs

Howe Pond: pumpkinseed, chain pickerel, brown bullhead. Readsboro municipal water supply.

Sherman Reservoir: chain pickerel, yellow perch, brown bullhead; stocked brown trout (VFWD) and rainbow trout (MADFW). TransCanada controlled boat launch and picnic area.

#### **East Branch of North River**

Mainstem: headwaters to Massachusetts State Line; 40.6 mi<sup>2</sup>. Summer water temperatures and natural low flows may be the most significant habitat impediments to wild trout populations in the mainstem, where trout abundance is typically low. Several shallow ponds in the upper sub-basin (Ryder, Gates, Laurel and Jacksonville ponds) may be important contributors to this temperature stressed system.

Mainstem: wild brook and brown trout; stocked brook trout. Atlantic salmon fry stocked by MADFW in recent past years as part of Connecticut River Basin salmon restoration.

Hager Brook: wild brook trout.

Branch Brook: wild brook and brown trout.

#### **Lakes, Ponds & Reservoirs**

Ryder Pond: no data.

Gates Pond: no data.

Laurel Pond: no data.

Jacksonville Pond: no data; unconfirmed report of chain pickerel.

North Pond: no data.

Shippee Pond: no data.

### **Green River**

Mainstem: headwaters to Massachusetts State Line; 36 mi<sup>2</sup>. Summer water temperatures and base flows are significant habitat limitations. Streams throughout the watershed were heavily altered by both TS Irene flooding and post-flood recovery work.

Mainstem: wild brook and brown trout; stocked rainbow trout (MADFW). Atlantic salmon fry stocked by MADFW in recent past years as part of Connecticut River Basin salmon restoration.

Hinesburg Brook: wild brook trout.

Roaring Brook: wild brook trout. Atlantic salmon fry stocked by MADFW in recent past years as part of Connecticut River Basin salmon restoration.

Borden Brook: no data.

Thorpe Brook: no data.

### **Lakes, Ponds & Reservoirs**

South Pond: brown bullhead; stocked rainbow and brown trout. VFWD boat launch and access area.

Deer Park Ponds: no data.

### **Fall River**

Mainstem: headwaters to Massachusetts State Line; 5.7 mi<sup>2</sup>. No data.

Lakes, Ponds & Reservoirs

Sweet Pond: largemouth bass, yellow perch. Population status unknown since pond was drained in 2011. Sweet Pond State Park.

Weatherhead Hollow Pond: largemouth bass, pumpkinseed, yellow perch, American eel. VFWD boat launch and access area.

Compiled by Kenneth Cox, Fisheries Biologist

Vermont Fish & Wildlife Department - December 2012

## **Appendix D. Regulatory and Non-regulatory Programs Applicable to Protecting and Restoring Waters**

The Vermont Surface Water Management Strategy maintains a continually updated roster of regulatory and non-regulatory technical assistance programs.

Regulatory programs may be accessed at:

[http://www.vtwaterquality.org/wqd\\_mgtplan/swms\\_appA.htm](http://www.vtwaterquality.org/wqd_mgtplan/swms_appA.htm)

Non-regulatory programs may be accessed at:

[http://www.vtwaterquality.org/wqd\\_mgtplan/swms\\_appD.htm](http://www.vtwaterquality.org/wqd_mgtplan/swms_appD.htm)