



Red Brook Watershed Community Meeting

May 18, 2010

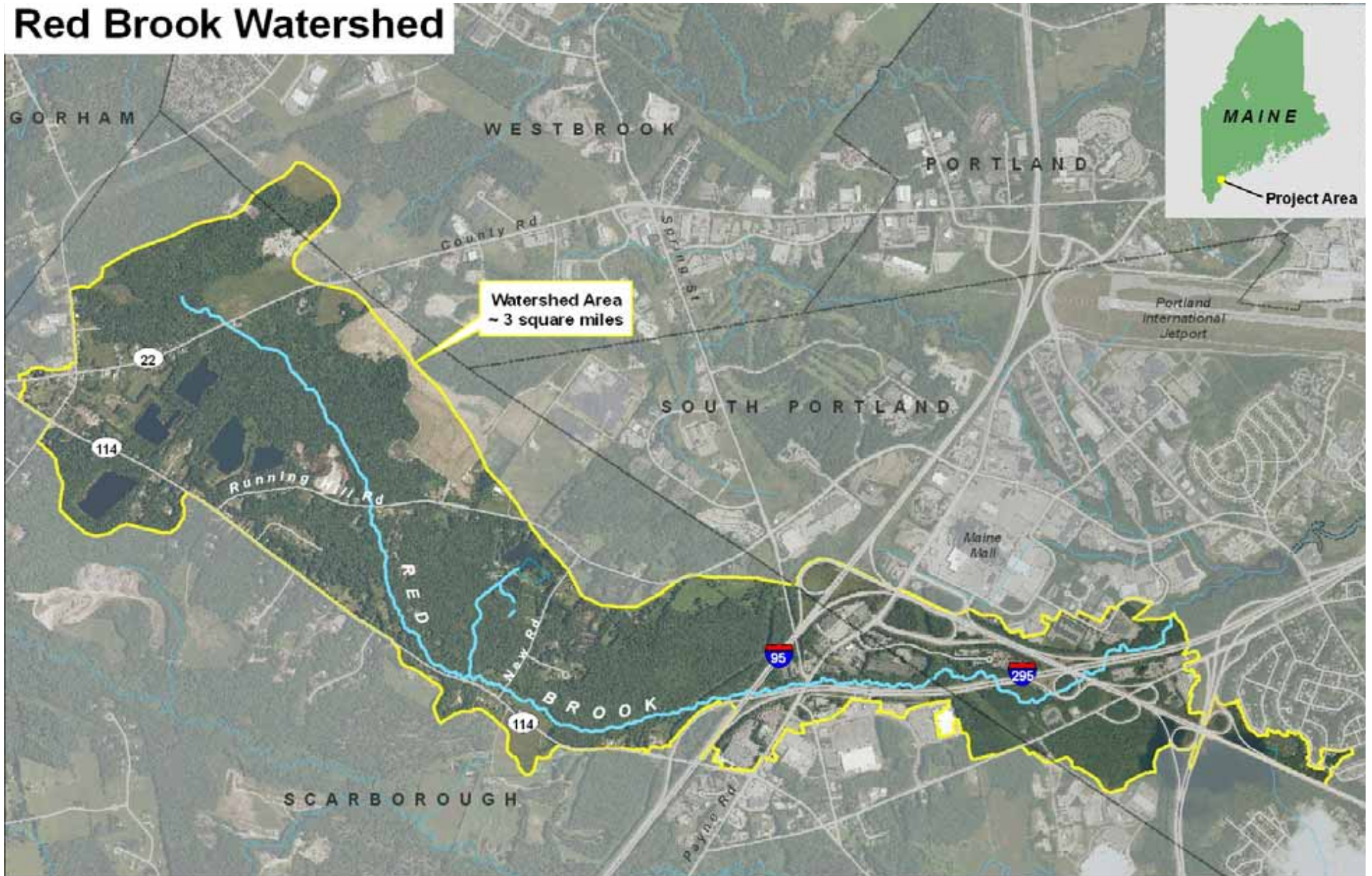


Preview

- Red Brook is not meeting its State water quality standards
- Opportunities exist
- Watershed planning is a good way to achieve restoration and protection



Red Brook Watershed



Data Sources: MEDEP; Town of Scarborough; MEGIS
Date: 5/4/10 by F. Dillon

Red Brook Water Quality

- Water Quality
 - PCBs have been found in fish tissue analysis in 2009, 2000 & 1994
- Does not meet State water quality standards = impaired status
 - Based on poor fish habitat



Upcoming Assessments

- Sediment sampling for PCBs and other toxics
- Flow monitoring
- Continuous dissolved oxygen, temperature and conductivity (e.g., salt) using data sondes



Upcoming Assessments

- Fish habitat assessment that will look at pebble counts, stream shading and if there are sticks, trees and leaves to provide food and shelter for fish
- Fluvial geomorphology assessment
- Fish shocking for trout



Urbanization is Hard on Streams



“Impaired” designation leads to...

- Higher municipal costs to treat stormwater
- More state and federal requirements for both new and existing development
- Higher costs for development
- Less local control



Threats/Opportunities

Threats

- Area planned for growth
- Possibility for development to ruin watershed ecosystem

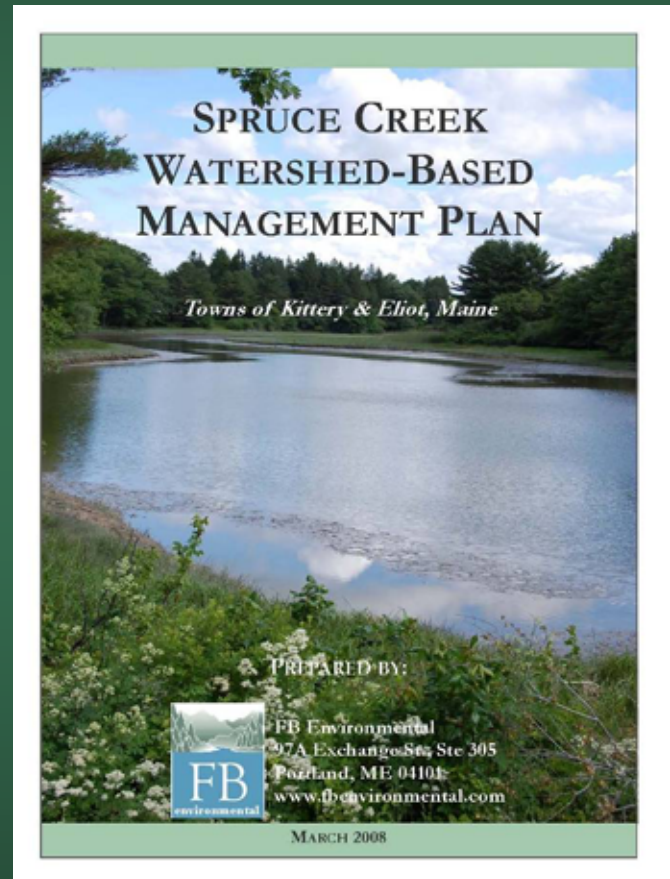
Opportunities

- Balance growth with well planned development within the stream watershed

**So what can we
do about this?**

Watershed Planning

- Allows local participation in finding solutions
- Can result in waivers to requirements in existing stormwater regulations
- Lower costs for development

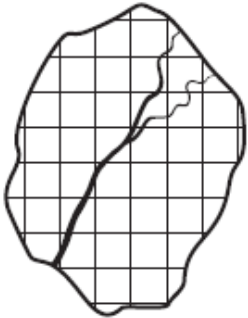


With a Watershed Plan...

- Resources can be pooled and directed to the most important needs of the watershed
- Some cooperative “fixes” can be more effective than only treating stormwater on regulated properties



Scenario A



1,000 houses built on 1,000 acres produce:

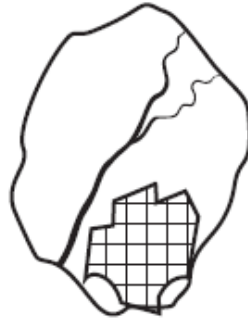
1,000 acres x 1 house
x 18,700 ft³/yr of
runoff =

**18.7 million ft³/yr of
stormwater runoff**

Site: 20% impervious cover

**Watershed: 20%
impervious cover**

Scenario B



1,000 houses built on 1,000 acres produce:

1,000 acres x 4 houses
x 6,200 ft³/yr of
runoff =

**6.2 million ft³/yr of
stormwater runoff**

Site: 38% impervious cover

**Watershed: 9.5%
impervious cover**

Scenario C



1,000 houses built on 125 acres produce:

1,000 acres x 8 houses
x 4,950 ft³/yr of
runoff =

**4.95 million ft³/yr of
stormwater runoff**

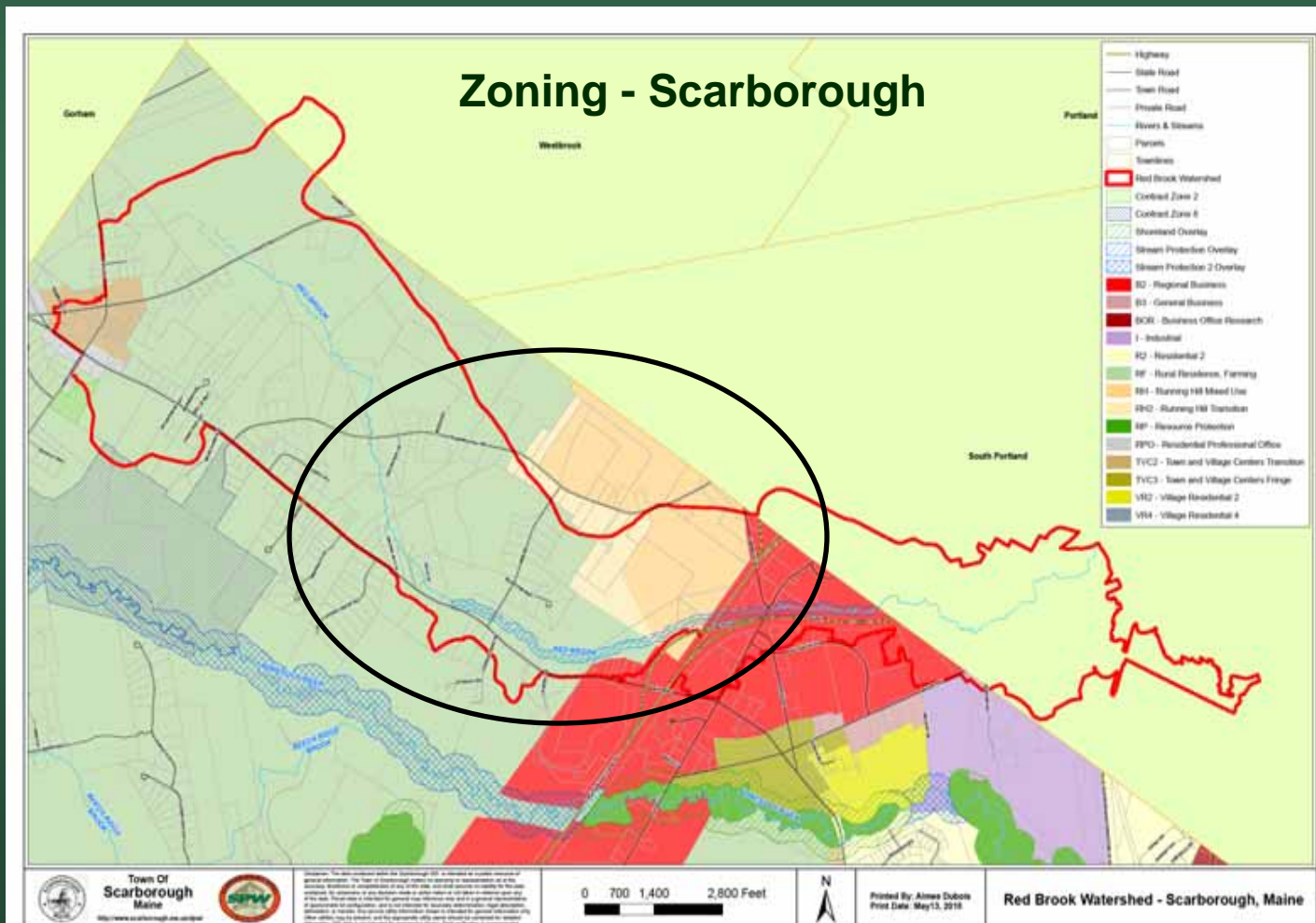
Site: 65% impervious cover

**Watershed: 8.1%
impervious cover**

Comprehensive Plan Implementation

Leads to updates to zoning in Red Brook Watershed

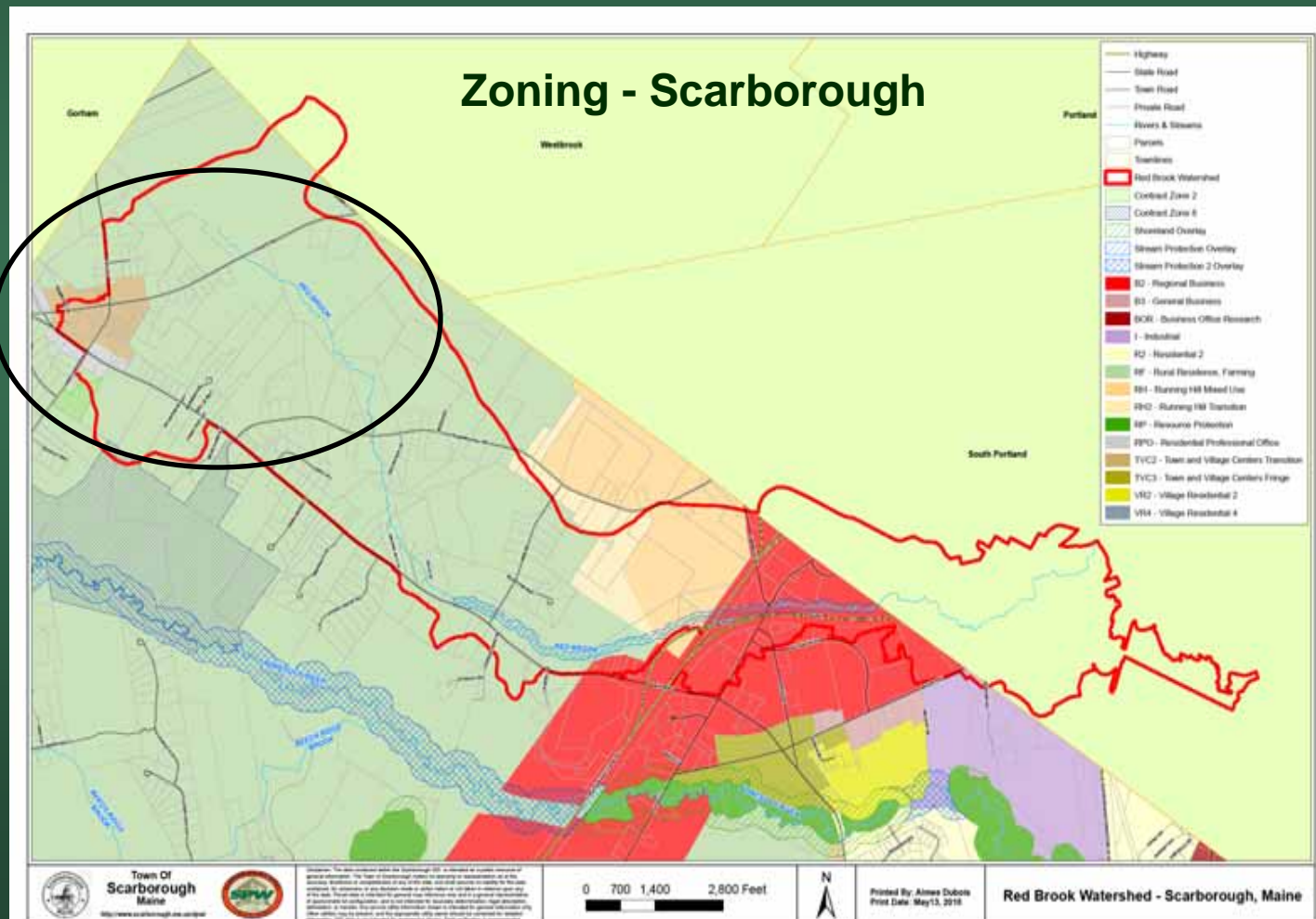
Running Hill Area – Fall of '08 changed RF & B2 zoning to Mixed Use zones



Comprehensive Plan Implementation

Leads to updates to zoning in Red Brook Watershed

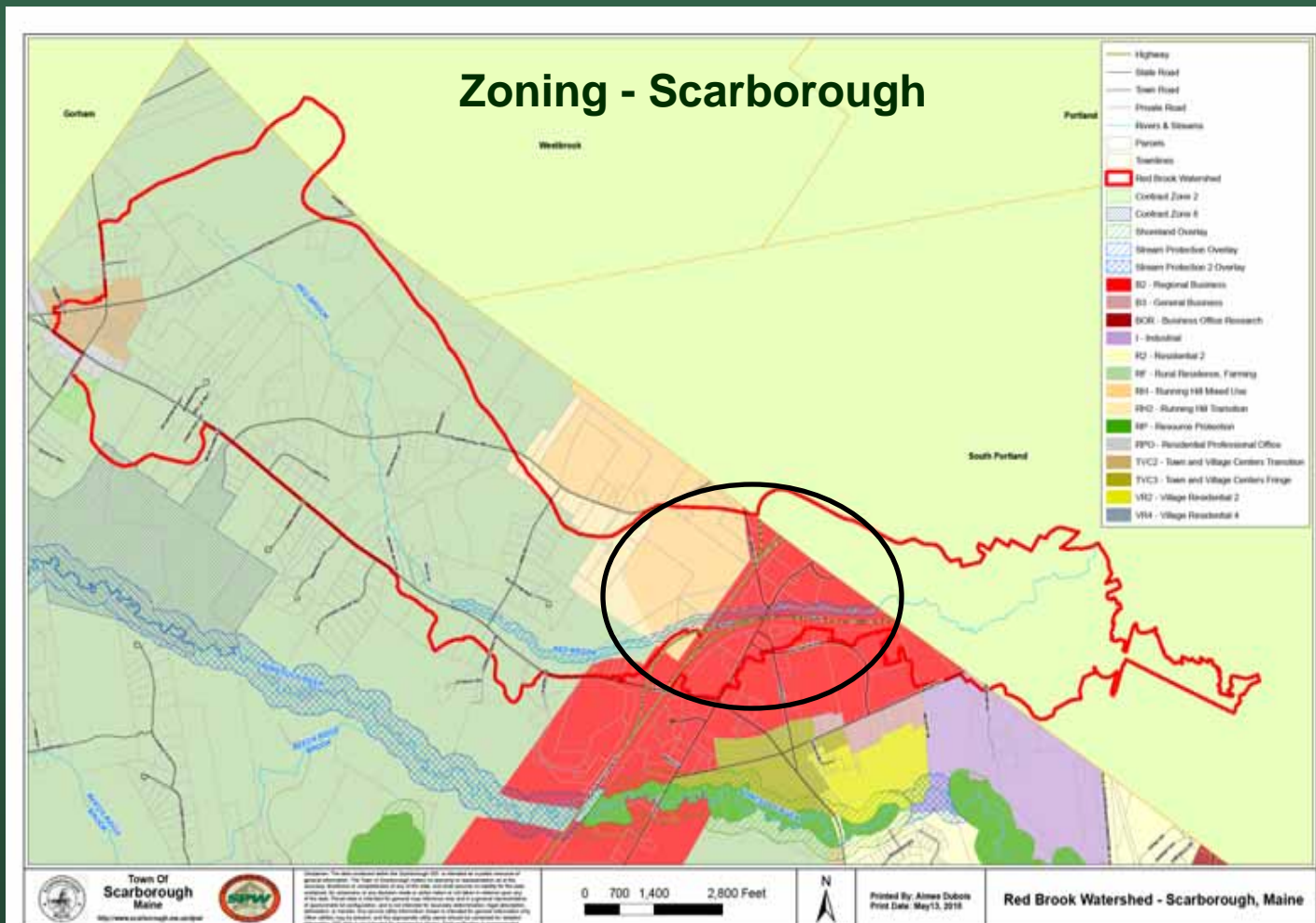
North Scarborough – Summer of '09 updated zoning in North Scarborough to Town & Village Center zoning



Comprehensive Plan Implementation

Leads to updates to zoning in Red Brook Watershed

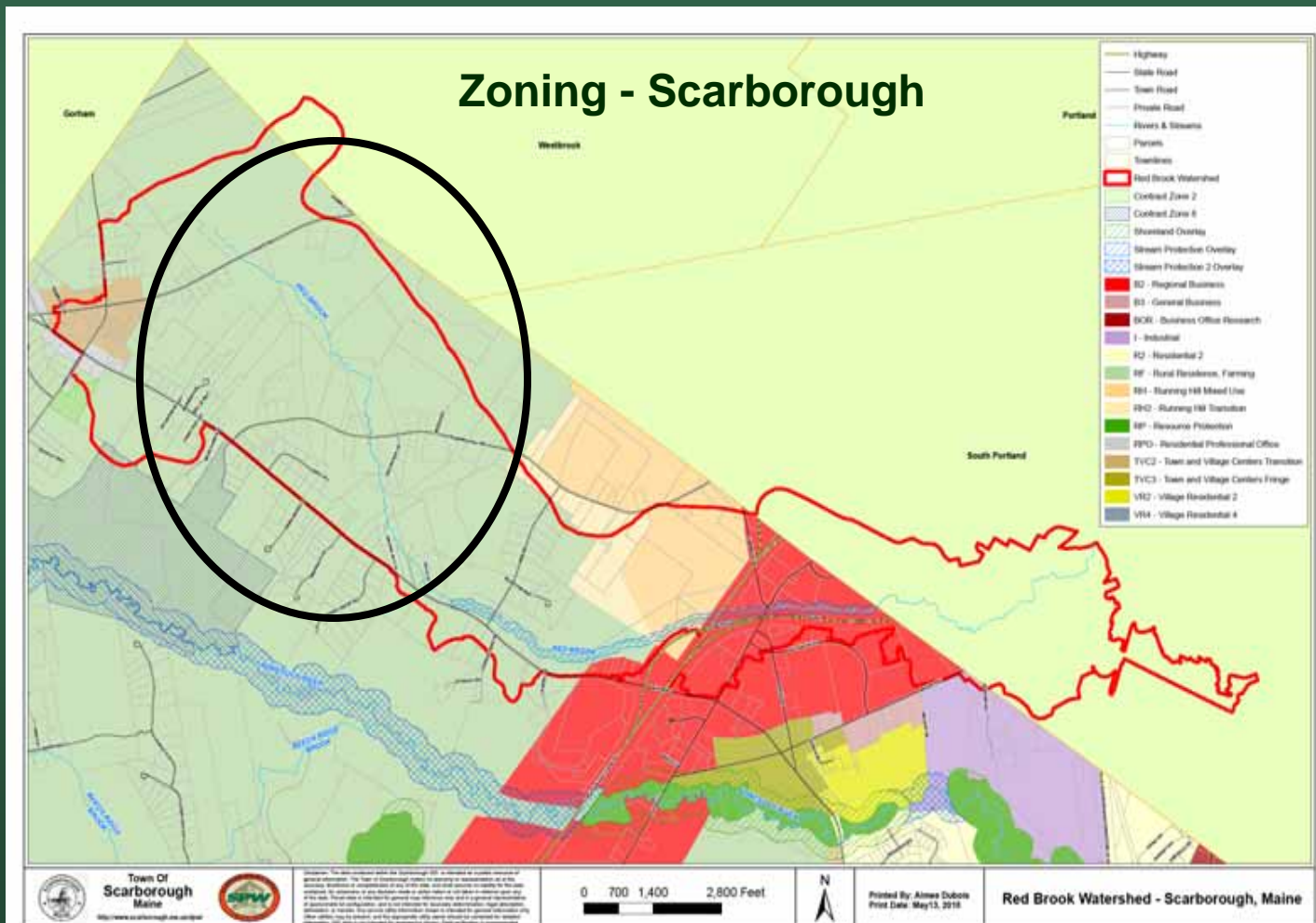
Payne Rd Area – Summer of '09 updated Commercial zoning to better manage growth



Comprehensive Plan Implementation

Leads to updates to zoning in Red Brook Watershed

Rural & Farming Zone – this Spring amended RF zone to better allow for agriculture



Zoning / Land Use - Watershed Connection



Watershed Management Plan to include recommendations to allow for growth while maintaining & improving water quality of brook & watershed

Watershed Management Plan recommendations could include

- Stormwater/development standards & local review specific to the needs of Red Brook
- In-stream restoration efforts
- Improvements to existing stormwater systems
- Ordinance updates that involve additional protections for brook & watershed
- Maintenance and education programs



Take Home Messages

- Red Brook is not meeting its designated water classification criteria
- Opportunities exist for restoration
- Watershed planning can provide a roadmap, but a group effort will make it more successful

