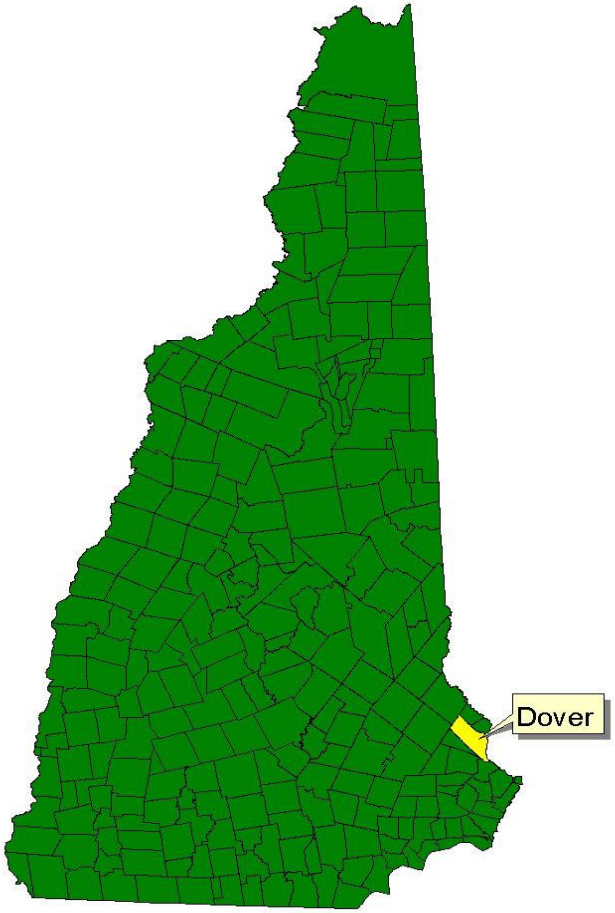
Stormwater Management

Dover, New Hampshire:

- Population 30,665
- Old Textile Mill Community
- Two major rivers; Bellamy and Cochecho, which flow into the Great Bay
-
- Split fresh water and tidal
- Sewer Separation project during the 1970's - mainly installed new sanitary mains



Participants at the Beginning:

- City of Dover Staff
- UNH Stormwater Center
- NH Department of Environmental Services
- Environmental Protection Agency

New Definitions to Learn:

BMP – **B**est **M**anagement **P**ractice

LID – **L**ow **I**mpact **D**evelopment

OMDB – **O**ver **M**y **D**ead **B**ody

RG – **R**ain **G**arden

NDP – **N**o **D**amn **P**lants

GW – **G**ravel **W**etland

MHA – **M**ust **H**ave **A**ccess

MS4 – More **S**h#@ **4** me

BACB – **B**ig **A**ss **C**atch **B**asin

SWMP – **S**tormwater **M**anagement **P**lan

RMP – **R**ight **M**aintenance **P**lan

Berry Brook Project:

- Discovered problems with the brook
- Had to relocate stock yard - water stock moved to Community Services headquarters
- Loss of city's inventory building
- City Staff tasked with constructing small rain garden at the elementary school

POPE STREET SCHOOL

Berry Brook Project cont.:

- Asked to be involved in 2nd project
- Design problems – not addressing whole issue
- Headworks of the BMP
- Held a few onsite meetings with design engineers
- Final design approved (mostly in field)

Berry Brook Project cont.:

- First BACB installed on Snow Avenue
- First major Rain Garden with Plants
- Address residents concerns ie. trees, erosion and runoff from property
- Improvements made to entire system from BACB to Brook
- Started to develop new standards

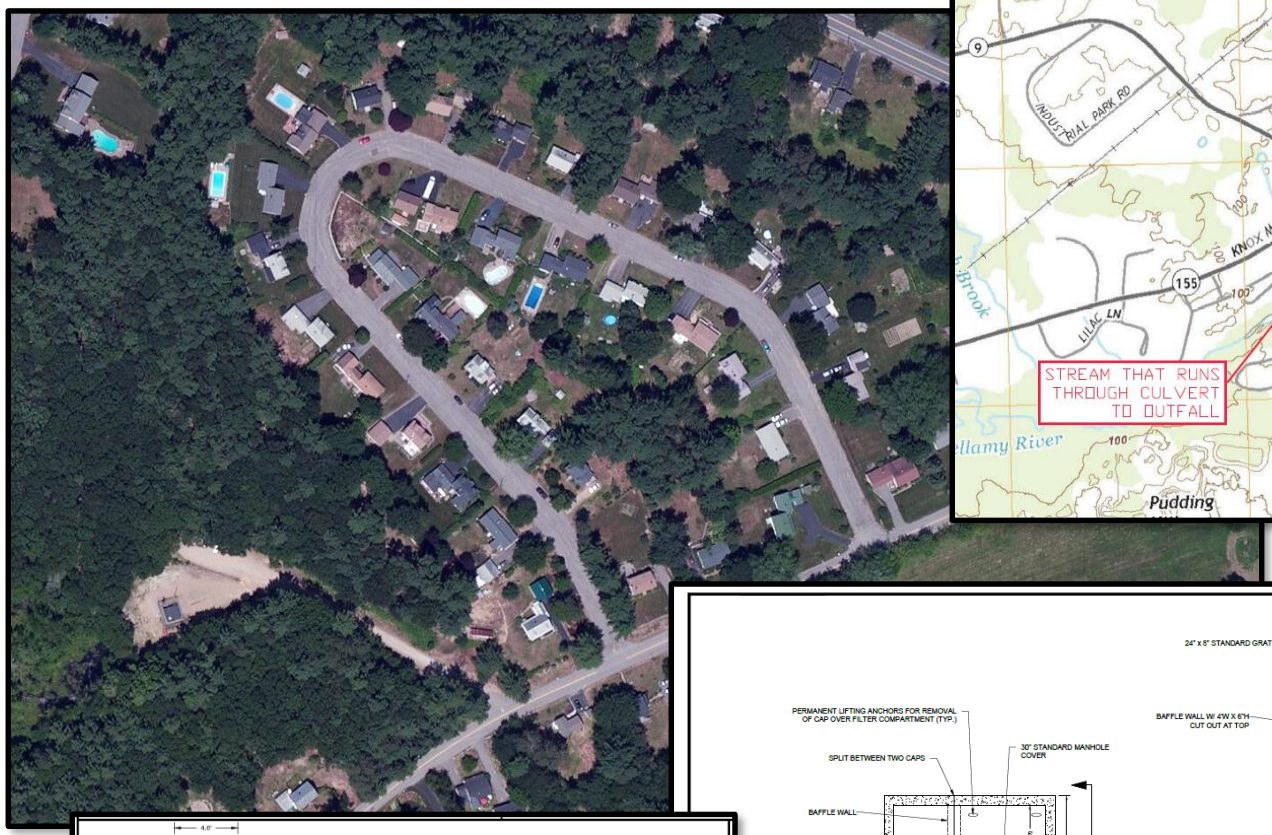
Old Stormwater Thinking:

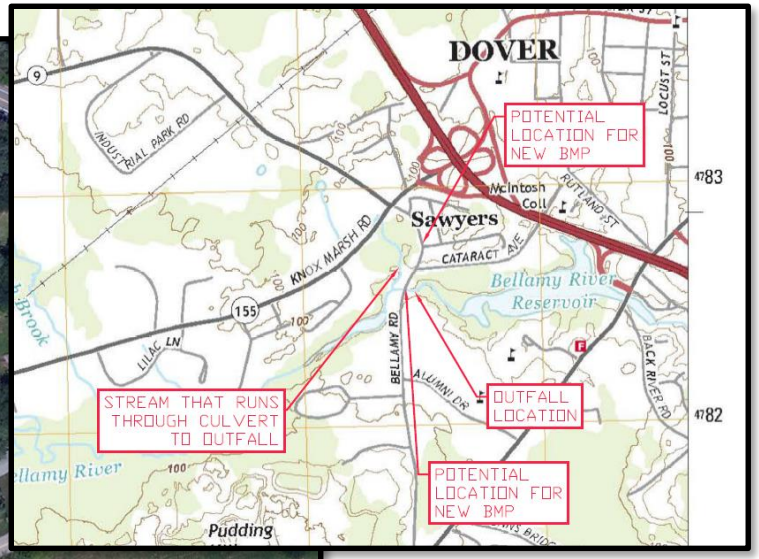
- Create a direct path to river or brook
- Add pipe or culverts to remove any ponding near roadway
- Full drainage project includes many catch basins with large pipes directly to river or brook

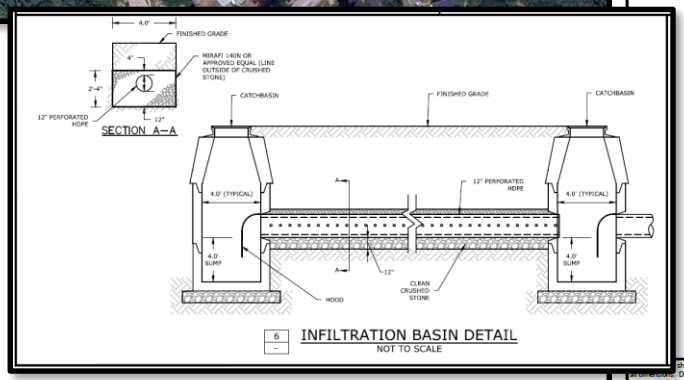
New Stormwater Thinking:

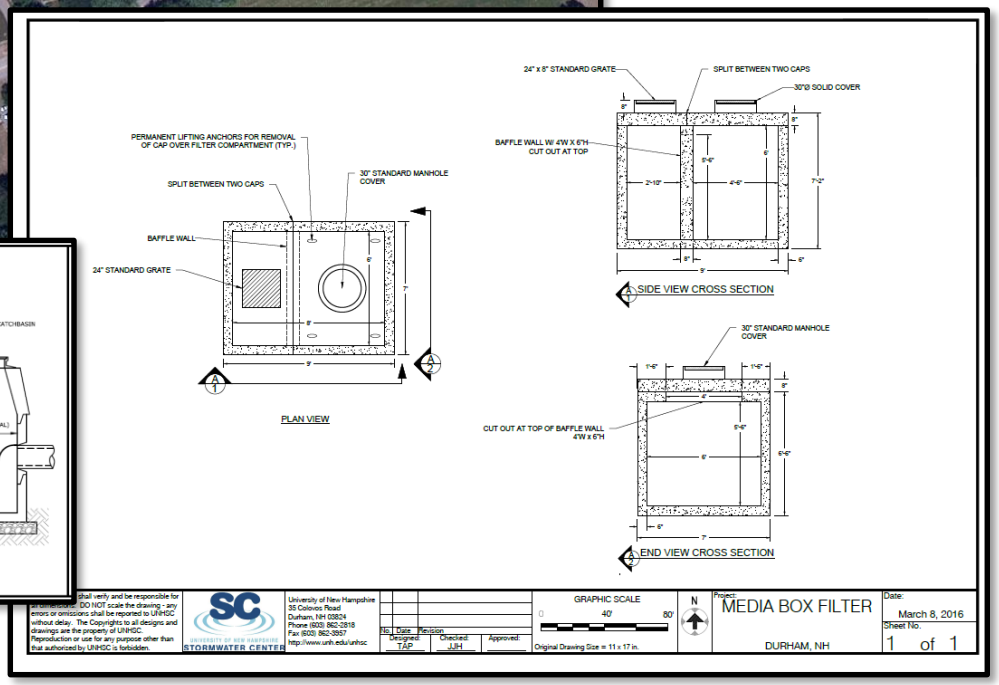
- Employee Involvement
- Resident Involvement
- Catching Sediment and Trash
- Capture and Treat Stormwater close to source
- Reduce Impervious Area
- Try new systems and ideas… but always keep in mind maintenance impact

CAT




DOVER
POTENTIAL LOCATION FOR NEW BMP
INDUSTRIAL PARK RD
LOCUST ST
RUTLAND ST
McIntosh Coll
Sawyers
CATARACT
KNOX MARSH RD
Bellamy River Reservoir
LILAC LN
BELLAMY RD
ALUMNI DR
BACK RIVER RD
STREAM THAT RUNS THROUGH CULVERT TO OUTFALL
OUTFALL LOCATION
POTENTIAL LOCATION FOR NEW BMP
Pudding
4783
4782


SECTION A–A
FINISHED GRADE
MIRAFI 140N OR APPROVED EQUAL (LINE OUTSIDE OF CRUSHED STONE)
CATCHBASIN
12" PERFORATED HDPE
4.0' (TYPICAL)
4.0' SUMP
CLEAN CRUSHED STONE
HOOD
6 INFILTRATION BASIN DETAIL
NOT TO SCALE


PERMANENT LIFTING ANCHORS FOR REMOVAL OF CAP OVER FILTER COMPARTMENT (TYP.)
SPLIT BETWEEN TWO CAPS
30" STANDARD MANHOLE COVER
BAFFLE WALL
24" STANDARD GRATE
PLAN VIEW
24" x 8' STANDARD GRATE
SPLIT BETWEEN TWO CAPS
30"Ø SOLID COVER
BAFFLE WALL W/ 4'W X 6'H CUT OUT AT TOP
SIDE VIEW CROSS SECTION
30" STANDARD MANHOLE COVER
CUT OUT AT TOP OF BAFFLE WALL 4'W x 6'H
END VIEW CROSS SECTION
GRAPHIC SCALE
Original Drawing Size = 11 x 17 in.
Project: MEDIA BOX FILTER
DURHAM, NH
Date: March 8, 2016
Sheet No. 1 of 1
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STORMWATER CENTER