

MEMORANDUM



TO: Jared Woolston, Town of Brunswick
FROM: Forrest Bell, FB Environmental Associates
SUBJECT: **Technical Advisory Committee Meeting #1: Minutes**
DATE: February 5, 2016
CC: Margaret Burns, FB Environmental; Jennifer Jespersen, Ecological Instincts

The purpose of this memorandum is to briefly summarize the discussion at the Mare Brook Watershed Assessment & Community Engagement Project Technical Advisory Committee (TAC) meeting held at the Town Office in Brunswick, Maine on January 22, 2016. The purpose of this meeting was to provide a summary of the work completed to date and to identify additional data available from the TAC committee members. The meeting was televised, and can be viewed in full on Brunswick TV 3 available on the town website: <http://tv3hd.brunswickme.org/Cablecast/Public/Show.aspx?ChannelID=1&ShowID=3370>. These meeting notes are meant to be used in conjunction with the PowerPoint presentation that will be provided to the TAC in a separate document.

ATTENDEES

NAME	AFFILIATION	EMAIL
Baldwin, Christopher	Bowdoin College	chrisbaldwin@comcast.net
Bell, Forrest	FB Environmental	info@fbenvironmental.com
Breinich, Anna	Town of Brunswick	abreinich@brunswickme.org
Brubaker, Tom	MRRRA	tomb@mrta.us
Burns, Margaret	FB Environmental	margaretb@fbenvironmental.com
Craig, Matthew	Casco Bay Estuary Partnership	matthew.craig@maine.edu
Dana, Bill	Brunswick Planning Board	billdana2@myfairpoint.net
Dennis, Jeff	Maine DEP	jeff.dennis@maine.gov
Devereaux, Dan	Brunswick Marine Resources	ddevereaux@brunswickp.org
Feindel, Kristin	Maine DEP	kristin.b.feindel@maine.gov
Ferdinand, Catherine	Bowdoin College	cferdina@bowdoin.edu
Frignoea, Ivy	Friends of Casco Bay (Baykeeper)	ifrignoea@casco bay.org
Jespersen, Jen	Ecological Instincts	jen@ecoinstincts.com
Leclerc, Robert	Navy	Robert.leclerc@navy.mil
Page, David	BACSE/Brunswick Rep to R.A.B.	dpage@bowdoin.edu
Stott, Sandy	Brunswick Conservation Commission	fsandystott@gmail.com
Walker, Steve	Town of Brunswick	swalker@mcht.org
Woolston, Jared	Town of Brunswick	jwoolston@brunswickme.org

GAP ANALYSIS

- FB Environmental (FBE) presented results of the draft Data Index which includes a list of all documents provided to FBE by the Town of Brunswick, and an overview of several of the key documents.

- FBE asked the TAC to review the Data Index, and to send along any available water quality data that is not currently on the list to fill in the gaps that were identified. Specifically:
 - Ivy Frignoca: Data from Friends of Casco Bay
 - Mathew Craig: Culvert survey data from Casco Bay Estuary Partnership
 - USFWS 2008 Report Needed
- Ivy asked why reach "A2" from the Maine DEP/Town of Brunswick Stream Corridor Survey report was considered in good condition if other surveys indicate that the stream is polluted in this area. . It was noted that the Stream Corridor Survey evaluated the stream based on physical properties, not chemical water quality parameters.
- Navy Water Quality Sampling
 - 2012: Surface Water and Sediment Data
 - 2015: Major sampling initiative occurred on the base for the following, but the data is not yet available:
 - Surface Water
 - Sediment and Pore Water
 - Sampling occurred above and below Picnic Pond
 - Maine DEP will likely have access to this data when it is available
- FB Environmental needs to obtain the tributary GIS file from Maine DEP, if possible as there are discrepancies between stream layers in the GIS
- FBE obtained two different watershed boundary maps. One was mapped by Maine DEP but does not include the estuarine portion of the watershed. FBE will likely combine the two watershed areas so that the more accurate DEP freshwater portion of the watershed and the lower estuarine portion of the watershed are represented in project documents.
- 2015 USFWS Fish Study (contact at Maine DEP (WQ) = James Stahlnecker). It was noted that the results from this study are not yet available.

COMMENTS AND QUESTIONS FROM THE TAC

- Forrest Bell noted that the Sampling and Analysis Plan (SAP) would be completed by March of 2016 to allow sampling to begin in May.
- The first public meeting will be held after the next TAC meeting (April).
- **All new data should be emailed to Jared Woolston for incorporation into the project.** Jared will provide FBE with the files to update the Data Index.
- Chris Baldwin asked if FBE has looked at old development vs. new development to determine flow, and if flow data exists for the evaluation of the geomorphology of the stream channel. Jen indicated that she has not come across any flow data, but wondered if the Navy has any since they indicated that they have permanent gauging stations.

- Ivy Frignoca asked if the IC TMDL written for Mare Brook was written for stormwater flow. The IC TMDL used impervious cover as a surrogate for the pollutants in stormwater, and was not specific to flow.
- Matt Craig asked about the goal of the project and why Mare Brook was not meeting attainment. Jared responded that the goal of this work was to identify the water quality problems at Mare Brook and determine why it is not meeting attainment. Steve Walker indicated that this work was meant to provide a full understanding of the stream to inform future development.
 - It was noted that Mare Brook is not meeting attainment due to biomonitoring results and possibly supported by fish tissue studies.
- Jeff Dennis said that the 2015 DEP biomonitoring data is not yet publically available. Maine DEP conducted biomonitoring at four stations in 2015:
 - 1. Below Barrow St. by the school- Richards Drive was non-attainment showing unhealthy bug community. Jeff Dennis expected more at this site.
 - 2. Downstream of Harpswell Road at the end of Jonathan Drive. Looks better than station 1. Met for Class C.
 - 3. Below Picnic Pond. NA- "quite bad there"
 - 4. Main Stem above Merriconeag Road
- Kristin Feindel noted that DEP completed *E. coli* monitoring in 2015 and results exceeded chronic levels.
- Department of Marine Resources is sampling fecal coliform in the estuary.
- Steve Walker asked about putting reports and other documents on a website. Jared responded that the town is currently setting this up.
- It was noted that Merriconeag Stream should be evaluated separately from Mare Brook and that Mare Brook should be evaluated in two distinct sections: upstream of the confluence with Merriconeag Stream and downstream of the confluence with Merriconeag Stream
- Question as to whether or not there is a smelt run. Mention of "sea-run Brookies". No indication they are there - DMR representative thought they would have seen fisherman if smelt were present.
- It was noted that estuarine environments are naturally stressed and that community structured parameters are the most important (probabilistic analysis).
- All landowner notices need to go out three weeks in advance of field work.
- The next TAC meeting will be held in April.

STRESSOR IDENTIFICATION

The following is a list of stressors that the TAC committee identified as being important to the water quality of **Mare Brook**:

- ▶ Algae
- ▶ Dissolved oxygen
- ▶ Excess nutrients

- ▶ Geomorphic Issues
 - Stream crossings
 - Concentrated flow
- ▶ Legacy pollutants- toxins in the sediments
- ▶ Loss of access to floodplain
 - Encroachment of development (it was noted that there is currently at 75' setback from streams and floodplains but only in recent development)
- ▶ Groundwater influences - sandy soils & high water table
- ▶ *E. coli*

A comprehensive list of Navy data was identified as necessary documentation to further identify the sources of these stressors.

The following is a cursory list of potential stressors that the TAC committee identified as being important to the water quality of **Merriconeag Stream**:

- ▶ Toxicity of sediments
- ▶ Flow