



MEETING MINUTES

DATE OF MEETING: September 15, 2014

LOCATION: Hingham Town Hall
Hingham, MA

TIME: 3:00 p.m.

ATTENDEES:

Jim Murphy – Steering Committee - Resident
Monica Conyngham – Steering Committee - Resident
Randy Sylvester – Steering Committee - DPW
Roger Fernandes – Steering Committee - Town
Mary Savage Dunham - Steering Committee – Planning
Abby Piersall – Steering Committee – Planning
Jason Burtner – MA CZM
Richard Cook - Resident
Kirk Bosma – Woods Hole Group
Indrani Ghosh – Kleinfelder
Andre Martecchini – Kleinfelder

RECORDED BY: Andre Martecchini

CC: Attendees, File

SUBJECT: Hingham Climate Change Vulnerability Risk Assessment
Adaptation Study
Meeting No. 1 – Project Kick-off

Kleinfelder No.: 20152625.001A

DISCUSSION:

1. Introductions were made.
2. A. Martecchini gave a brief overview of the project and the agenda. The project will assess the vulnerability to flooding of municipal infrastructure and natural resources for a number of different future planning scenarios, and will develop adaptation strategies to address impacts. Privately owned infrastructure will be identified on the inundation maps, but vulnerability assessments or adaptation strategies will not be developed for them.

3. The focus of the meeting was to discuss available data from Hingham, sea level rise and storm parameters to be used for modeling of predicted water surface elevations, output formats, public outreach and schedule.
4. Available Reports and Data from Hingham:
 - Hingham will provide data and reports that might be helpful in the preparation of the vulnerability assessment. Documents will include a seawall report with elevations of seawalls and other coastal stabilization structures and a catch basin report. The Town confirmed that its 2012 Hazard Mitigation Plan update can also be used to provide information of critical infrastructure in existing flood-prone areas.
 - R. Fernandes asked about the limits of the study. He said they have lots of information, but the project probably only needs information for infrastructure near the coast. K. Bosma said that the model will extend up to an elevation of 30.0, so anything above that is not required. K. Bosma will provide a map by the end of the week which will show the areas that fall within the 30 foot contour. Update: This map was provided to the Town on 9/19/2014.
 - I. Ghosh said that Kleinfelder will set up a drop box site by the end of the week, through which the town can transfer data to Kleinfelder. Update: The link to this site was provided to the Town on 9/19/2014.
 - A. Martecchini said that if Hingham can provide documents to Kleinfelder within the next month that would fit the project schedule.
5. A. Martecchini said that Kleinfelder will be using the 2011 Northeast LiDAR dataset that covers Hingham for sea level rise and storm surge modeling. Kleinfelder also plans to use seawall survey data provided by CZM. J. Burtner said that there is an updated version of the survey data from the one Kleinfelder used in the 2013 study of Marshfield/Duxbury/Scituate. He will check the status of the updated survey data and get it to Kleinfelder if it is available.
6. A. Martecchini said that Kleinfelder may require some first floor and spot elevations of critical infrastructure subject to flooding as part of the vulnerability analysis. R. Fernandes said that he would be the person to get limited survey spot elevation data. Kleinfelder will make a list of critical infrastructure for which survey data is needed once the inundation maps are prepared and we see which facilities are at risk of flooding.
7. A. Martecchini said that detailed assessments of underground utility infrastructure such as drainage and sewer piping, water distribution piping and electrical ductbanks will not be performed on this project with the idea that most underground systems are already designed to operate in a submerged condition. The project will

focus on above-ground infrastructure related to these systems such as pump stations, flow control structures, treatment plants, stormwater outfalls, control centers and dams/levees that might be affected by flooding.

8. K. Bosma said that the modeling will be able to take into account issues of duration of flooding including the time it takes for the floodwaters to recede that might affect the vulnerability assessment.
9. K. Bosma gave an overview of options for modeling of surface water elevations for future planning scenarios. The approach, as described in the Kleinfelder proposal, is to use the Boston Harbor Flood Risk Model (BH-FRM) which the Woods Hole Group developed for MassDOT. It uses the ADCIRC software combined with SWAN to model predicted storm surge. He described some of the advantages of using the BH-FRM model over a bath-tub approach and other models, such as SLOSH. He also discussed several approaches to taking into account future sea level rise and the time horizons to be studied. Based on the discussion, it was agreed that the modeling will be performed using the BH-FRM model for the years 2030 and 2070 using the risk based (Monte Carlo) approach. Kleinfelder will draft a memorandum further describing the parameters and modeling approach and proposed output formats to be performed in Phase 2. The memorandum will be submitted to the Steering Committee for comment and further discussion.
10. Discussed very briefly the topic of public outreach. A. Piersall suggested that we would want to hold an update meeting with the Selectmen as soon as we develop the inundation maps to obtain public input. All agreed that we need to be careful to differentiate this project from the recent FEMA maps update and related flood insurance issues that the public is very sensitive and concerned about. This message will need to be carefully crafted so as not to cause undue public relation issues.
11. Briefly discussed schedule. Kleinfelder will prepare the draft modeling parameter memorandum by the end of September. The intent is to have the Phase vulnerability assessment completed by the end of December.

If you feel that there are errors, discrepancies, and/or omissions, please notify Kleinfelder within 5 days of receipt of this report. After 5 days, these minutes will be deemed correct in every aspect and accepted by all concerned. Corrections can be e-mailed to: amartecchini@kleinfelder.com.