

# **Shawsheen River Flood Plan**

For

**Washington Park Condominiums**

7/25/2011by jbm

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## **I. FOREWORD**

This plan strives to provide a comprehensive approach to ensuring the safety of all of the residents and the minimization of damage to property associated with Washington Park Condominiums. In the event of a threatening flood emergency this plan will guide thoughtful decision making.

A key component to the success of this flood plan is consultation with local, state, and federal officials in order to get multiple perspectives in operationalizing a plan. Documentation of these communications will be retained by the Property Manager, Scott Wolf.

## II. Recent History

Washington Park Condominiums lies in a flood zone next to the Shawsheen River in the city of Andover, Massachusetts. There are two gauges<sup>1,2</sup> that monitor the river's height: Balmoral Condominiums in Andover, MA, and Wilmington, MA. In addition there are two gauges<sup>3,4</sup> on the Merrimack River in Lawrence and in Lowell.

On March 16, 2010, Washington Park Condominiums suffered several inches of flooding to 12 first level units located in Exeter and Dover Houses. At this time the Balmoral gauge indicated that the river's height reached 36 ft., -- two feet above the flood stage. Similarly the Wilmington gauge indicated that the river's height was 10.59 feet, also above flood stage (7 feet). The Merrimack River gauge indicated the river's height above the flood stage (20 ft) at 23.4 ft.

On May 15, 2006 Washington Park Condominiums suffered more serious flooding in which 72 first floor units in the complex were flooded with over 1.5 ft of water. The Balmoral gauge was not operational at that time; however the river's height at that location was estimated by NOAA to have been at 37.45 ft. The Wilmington gauge indicated the river's height as 8.94 ft. On that date the Merrimack gauge indicated the river's height as 28.8 ft.

For comparison purposes, the table below shows dates, flood stage, and gauge levels. Data in red indicate condition for first floor flooding. Data in black indicate no flooding of the first floors.

Gauge at	Balmoral	Wilmington	Lowell	Lawrence
Flood Stage (ft)	34	7	52	20
2/27/2010	31.49	8.15	51.49	20.2
4/18/2007	34.15	7.75	58.09	27.2
4/1/2010	33.98	9.42	54.64	24.3
3/15/2010	36.16	10.59	53.63	23.4
5/15/2006	37.45	8.94	58.84	28.8

### **III. Flood Terms**

Several terms are used in describing flood hazards. The following list of definitions is provided for residents' understanding:

**Flood Alert** – Heavy rains are expected and rivers will rise. Management and Board of Trustees meet to review all procedures and confirm all contacts.

**Flood Watch** – Flooding is possible. Residents are notified of possible flooding by voicemail. Cars are moved to higher ground and evacuations plans made.

**Flood Emergency**– Flooding will occur soon. All facilities evacuated and flood prevention measures implemented.

### **IV. Essential personnel to be contacted:**

In the event of a Flood Watch the following town and service providers will be contacted.

Andover's Fire and Rescue Chief determines when utilities will be turned off.  
Chief Michael Mansfield- 978-475-1281

Andover's Chief of Police determines when evacuation is ordered. Chief Brian Patella 978-475-4011

Callahan Plumbing is contacted in order to check the operation of sump pumps.  
978-689-9233

Wildwood Nurseries Inc. is contacted in order to install sandbags and other flood mitigation equipment. Dave Shaw 978-265-8149

### **V. (FEOPWPC) Flood Emergency Operations Plan for Washington Park Condominiums**

The way in which the flood level definitions will be applied to Washington Park is the following:

#### **Flood Alert - 5 inches of continuous rain is expected.**

1. Management and the BOT will convene at the Main office.
2. All personnel listed in Part 4 will be contacted.
3. A voice shot to all residents is sent out.

## **VI Flood Watch - Balmoral gauge may approach flood at 34 ft**

1. Management notifies Callahan to check all sump pumps.
2. Wildwood nurseries prepare for flood prevention measure such as sand bags, door dams, etc.
3. A voice shot is sent to all resident to prepare for evacuation and to move their cars to higher ground at Frye Circle.

## **VII Flood emergency - Evacuation - Balmoral gauge will reach 34 ft or greater. Flood waters are expected to cover the entire property and rise above building floor levels**

The decision to evacuate is made by the City of Andover's Fire Chief or his designee. Typically this individual does not operate in isolation but has had a high level of involvement with Washington Park property manager as well as with MEMA personnel.

1. A voice shot is sent out notifying everyone of an evacuation.
2. Management does a door to door check to assure total evacuation.
3. Wildwood Nurseries implements flood prevention measures.
  - The Contractor (Wildwood) agrees to be onsite within 24hrs with the labor, equipment, and materials to erect the sandbags and the plastic barriers. Generators deployed and sump pumps will be turned on.
  - Consider that the Contractors work better and in safer conditions if they deploy the sandbags during daylight hours.

## **IX. RE-Occupancy**

1. The decision for re-occupancy is made by Andover's Chief of Police.
2. Residents will be notified by voice mail and the Washington Park website<sup>5</sup>.

### **Resources**

The following websites are provided for residents' monitoring...

## *USGA Website*

The following websites provides real time updates on the height of the Shawsheen River at the Merrimack River

1. Shawsheen River Gauge in Andover at the Balmoral

[http://waterdata.usgs.gov/ma/nwis/uv?site\\_no=01100627&format=gif&period=31](http://waterdata.usgs.gov/ma/nwis/uv?site_no=01100627&format=gif&period=31)

2. Shawsheen River gauge in Wilmington MA

<http://newweb.erh.noaa.gov/ahps2/hydrograph.php?wfo=box&gage=wlmm>

3. Merrimack River Gauge in Lawrence MA

<http://newweb.erh.noaa.gov/ahps2/hydrograph.php?wfo=box&gage=lwmm>

4. Merrimack river gauge in Lowell MA

<http://www.lawrencevilleweather.com/wx.php?forecast=riversobs&gage=LOWM3>

5. National Weather service

<http://forecast.weather.gov/MapClick.php?CityName=Andover&state=MA&site=BOX&textField1=42.6553&textField2=-71.1431&e=0>

***Note: This plan has not yet been completed in consultation with Fire Chief Michael Mansfield, Fire and Rescue Chief for the City of Andover MA***