

**Initial Feasibility Report on drinking fountain provision  
in Belfast Public Parks**



**May 2012**  
Project Ref: 11-029

## **1.0 Introduction**

The purpose of this report is to review the issue of drinking fountains in Belfast public parks. The Green Flag standard encourages the provision of drinking fountains near sports facilities and playgrounds. In a wider context, there is a current trend for the promotion and provision of external drinking fountains to reduce plastic water bottle consumption. For example, the Australian town, Bundanoon has decided not to sell, nor giveaway bottled still water to reduce consumption of such.

The benefits of free potable water include improved user health and wellbeing. Water fountains may also lead to improved park user satisfaction and further improve the public perception of public parks.

## **2.0 History of drinking fountains in Belfast**

Drinking fountains were common in the historic parks, but over time, have been removed or decommissioned.

### **Historic (redundant) BCC park drinking fountains**

- Alexandra Park
- Dunville Park (drinking fountain attached to ornamental fountain)
- Ormeau Park – had a metal drinking cup attached by chain to the fountain
- Woodvale Park – had a metal drinking cup attached by chain to the fountain

### **Historic (redundant) drinking fountains in the Belfast streetscape**

- Thompson Memorial Fountain (located on intersection between Ormeau Avenue and Bedford Street).
- Jaffe Fountain (now re-located from original Park location)

### **Working drinking fountains in BCC parks**

- Adventurous playground
- Musgrave Bowling pavilion

With the arrival of domestic water supply, the historic demand of water provision reduced, but changing lifestyles and increased levels of active recreation in our parks means that drinking fountains are now considered to enhance the quality of an open space.

## **3.0 Design issues**

The proposed drinking fountain sites should consider the location of proposed and existing cycle routes, sports pitches, multi-use games areas, outdoor gyms and play areas. The location of existing park buildings and the existing mains water routes should also be considered, as nearby access to such will dramatically reduce potential cost and timescales of fountain installation.

Under the Planning (General Development) Order (Northern Ireland) 1993, Schedule 12 Development by District Councils; public drinking fountains are deemed to be permitted development and would not require planning approval.

### **Potential locations**

- Existing Green Flag Parks may be considered priority for external drinking foundations
- Proposed Green Flag Parks 2012
- City Parks

- District parks and facilities
- Existing 'stand-alone' exercise facilities', e.g. MUGAs, outdoor gyms, tennis courts which do not have adjacent changing facilities/community centres/leisure centres.
- Neighbourhood play areas

**Site requirements**

- Easily accessible, hardsurface access path and hard standing area for user
- Unit design appropriate to context, e.g. does not create an adverse visual impact in a park
- Site with natural surveillance, to deter vandalism

**Potential refurbishments**

- Repair of existing drinking fountains, replace any old lead pipe connections to remove associated lead pollution threat
- Historic fountains may be listed and require historic building consent for refurbishment

**4.0 Green Flag Standard**

The following BCC sites were awarded the Green Flag Award 2011;

- Ormeau Park
- Falls Park
- Roselawn Cemetery
- Barnett Demesne
- Botanic Gardens
- Musgrave Park
- Cave Hill Country Park

Section 2.3 of 'Raising the Standard', The Green Flag Award Guidance Manual (Updated 2009) states that 'Drinking-water fountains should be provided close to sports facilities and children's playgrounds.'

**5.0 Design - Drinking fountain design**

**Drinking fountain unit description**

The two main options for drinking fountain are 'stoop and drink' or bottle fillers. The bottle fillers may have a perception of being more hygienic and also are potentially more convenient/useful for runners, cyclists and walkers.



*Halsey Taylor Drinking Fountain*



*Halsey Taylor Bottle Filling Stations*

## Drinking Fountain Unit Design

### Contemporary bespoke unit design samples



Fountain by David Harber, in Hyde Park, London



Fountain in Hindmarsh Square, Adelaide

In addition to the general issues of aesthetics and function, the unit design should consider;

- Maintenance issues – easily maintained, vandal resistant, corrosion proof, easy access to plumbing
- Hygiene - easily cleaned, consider covered spout (to prevent mouth touching it), design to deter contamination.
- Water quality improvement - inbuilt water filter
- Ability to turn off water supply in winter
- Speed of water flow/fill rate
- Accessibility - consider accessibility for all potential users, e.g. children, wheelchair users
- Other/extra functional options, e.g. outdoor bottle stations, pet level water supply
- Sustainable design and impact on the environment (unit life cycle analysis)
- Robust/vandal resistant
- Site specific design issues, should the unit match other 'furniture' in the park, become a feature/customised design or have a single 'branded' design to be used citywide.

### Historic drinking fountain design issues

- Infrastructure, such as lead pipes etc. must be replaced to ensure safe water supply
- Any repairs to listed structures will require consent
- Existing design/heights of original water spout etc. may not be accessible to all

## 6.0 Contemporary Precedents

### Sparkling water drinking fountains

One of the contemporary trends in European parks is the provision of new drinking fountains, an example is a Parisian installation which provides cooled sparkling water. "La pétillante" (the bubbly) is a water fountain installed in a wooden hut of the Jardin de Reuilly, in eastern Paris. Six taps to provide both sparkling (the water is injected with carbon dioxide) and flat water. This concept originated in Italy and there are over 200 such fountains active in Northern Italy. Please note that the cost for such units is likely to be prohibitive.



Images of "La pétillante", in Jardin de Reuilly

## 7.0 Cost Estimates

- A sample standard drinking fountain unit such as the 'Halsey Taylor 4591', is made of stone/concrete by MIW, costs £1200. The estimated cost of drinking fountain unit and installation, located adjacent to mains water supply, is £2500-£4000.  
Note: cost would increase significantly at sites with no existing mains water supply, due to the infrastructure provision cost of breaking into and expanding route of water pipes. Also, installation of bespoke design fountains would increase costs.
- The estimated annual cost of maintenance, per drinking fountain unit is £1000-£2000.
- The potential introduction of water charges would increase the running costs of fountains
- The table below outlines cost estimates for the provision of drinking fountains at potential location options with Green Flag sites.
- Each fountain would also require an area of hardstanding and potentially an access path, further to the cost of the fountain installation estimate.

<b>Cost estimate for drinking fountains options in Green Flag sites</b>				
<b>Green Flag Site &amp; fountain location options</b>	<b>Standard unit &amp; installation cost estimate</b>	<b>Infrastructure connection distance &amp; associated cost estimate</b>	<b>Water connection cost estimate</b>	<b>Combined total cost estimate + 10% contingency</b>
<b>Ormeau Park</b>				
Ormeau 2000	£3000.00	20m (£40 x 20 = £80.00)	£500.00	£3580.00 +358.00 <b>£3938.00</b>
Tennis court	£3000.00	200m (£40 x 200 = £800.00)	£500.00	£4300.00 +430.00 <b>£4730.00</b>
Embankment Ravenhill Road	£3000.00	200m (£40 x 200 = £800.00)	£0	£3800.00 +380.00 <b>£4180.00</b>
<b>Botanic Gardens</b>				
Playground Stranmillis embankment	£3000.00	100m (£40 x 100 = £400.00)	£500.00	£3900.00 +390.00 <b>£4290.00</b>
Public toilet	£3000.00	20m	£500.00	£3580.00

		(£40 x 20 = £80.00)		+358.00 <b>£3938.00</b>
Bandstand	£3000.00	200m (£40 x 200 = £800.00)	£0	£3800.00 +380.00 <b>£4180.00</b>
Palmhouse	£3000.00	100m (£40 x 100 = £400.00)	£500.00	£3900.00 +390.00 <b>£4290.00</b>
<b>Sir Thomas and Lady Dixon Park</b>				
Playground	£3000.00	150m (£40 x 150 = £600.00)	£500.00	£4100.00 +410.00 <b>£4510.00</b>
Public toilet	£3000.00	30m (£40 x 30 = £120.00)	£500.00	£3620.00 +362.00 <b>£3982.00</b>
<b>Falls Park</b>				
Bowling Green	£3000.00	0m	£500.00	£3500.00 +350.00 <b>£3850.00</b>
Playground	£3000.00	110m (£40 x 100 = £440.00)	£500.00	£3940.00 +394.00 <b>£4334.00</b>
Pitches * Norfolk Road	£3000.00	50m (£40 x 50 = £200.00)	£2000.00	£5200.00 +520.00 <b>£5720.00</b>
<b>Musgrave Park</b>				
Tennis	£3000.00	100m (£40 x 100 = £400.00)	£500.00	£3900.00 +390.00 <b>£4290.00</b>
Bowling Green	£3000.00	100m (£40 x 100 = £400.00)	£500.00	£3900.00 +390.00 <b>£4290.00</b>
Stockman's Lane Connection *	£3000.00	50m (£40 x 50 = £200.00)	£2000.00	£5200.00 +520.00 <b>£5720.00</b>
<b>Belmont Park</b>				
CIYM building Connection *	£3000.00	100m (£40 x 100 = £400.00)	£2000.00	£5400.00 +540.00 <b>£5940.00</b>
Belmont Road Carpark	£3000.00	100m (£40 x 100 = £400.00)	£500.00	£3900.00 +390.00 <b>£4290.00</b>
<b>Barnett's Demesne</b>				
Malone House	£3000.00	100m (£40 x 100 = £400.00)	£0	£3400.00 +340.00 <b>£3740.00</b>
Playground	£3000.00	200m (£40 x 200 = £800.00)	£500.00	£4300.00 +430.00 <b>£4730.00</b>
<b>Roselawn Cemetery</b>				

There are no sport or play recreational facilities on this site. 'Reflections' café sells refreshments.	£0
<b>Adventurous playground, Belfast Castle</b>	
Cost estimate for potential refurbishment of existing fountain	<b>£1000.00</b>

**Note** \*Denotes Water Service Mains connection required, cost will vary according to site conditions

## 8.0 Potential disadvantages

### Maintenance

- It is estimated that each fountain would require one inspection visit, every 2 days, plus any required repair work

### Potential risks

The potential provision of drinking water fountains may incur the following risks;

#### **Health and safety**

- Water borne disease
- Potential contamination of water supply/outlet – a pilot scheme elsewhere noted that fountains which dispense water from a hidden spout below and not above are less likely to be contaminated. Note this design would favour filling of bottles, rather than 'stooping and drinking'.

#### **No/low uptake of use**

- Potential poor public perception may result in no/low uptake of use
- Poor maintenance, unsightly/unkept appearance, e.g. traces of mould, algae etc. may detract from perception of park and also perception of water quality
- Many amateur sportspeople supply their own drinks

#### **Vandalism**

- To fountain structure and setting

#### **Miscellaneous**

- Water wastage due to pipe bursts etc. and improper use of fountains
- Spills and potential slip hazard
- Winter freeze

#### **Public liability**

- BCC liability for such potential hazards

## 9.0 Summary

The success of the project will be determined by the correct installation of the appropriate units, in the correct location, maintained to a high standard, combined with good user uptake. The provision of drinking fountains could potentially increase Green Flag scores. However, currently there is no budget for this.

**Recommended action**

- Full audit of potential sites.
- Repair or reconnect existing drinking fountains which are currently unused, if feasible.

**Operation Recommendations to ensure success of scheme**

- Install signs and mark drinking fountains on park maps and on websites, to help people to find and use fountains
- Ensure existing drinking fountains are regularly cleaned and maintained so that they are hygienic to use and kept in working order.
- Help users understand the importance of these features and their value as a park asset
- Please note that these potential elements would result in additional costs.

**Opportunities**

- Pilot scheme in one/small number of sites to test drinking fountain unit, user reaction, maintenance issues etc.
- City wide scheme to promote sustainable drinking water
- Linked water conservation education/promotion scheme