

TASK ANALYSIS WORKSHEET

Company: The Corporation of DeltaDepartment: Engineering OperationsJob Title: Utility Maintenance Worker – Water main flushingDate: March 20, 2003**Job Summary:**

Water main flushing is done on an annual basis and requires a 2-person crew to perform the following:

Primary tasks include:

- Shut off / turn on water
- Flushing water mains
- Hydrant lead blow off

Secondary tasks include:

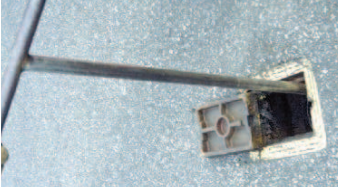
- Driving between sites
- Ensuring there is good access to the hydrant e.g. soil, grass, weeds and clearing debris as required.

Job tasks are shared between the two crew members. A routine and pattern has developed, and the work proceeds efficiently. Personal protective equipment include: safety boots and coveralls.

In one day, ~34 - 40 valves are opened and closed, and approximately 10 hydrants are flushed. The water main flushing process takes about 20 – 40 min depending on how dirty the water is. The drive between sites (i.e. valves, hydrants) varies but appeared to be of short duration (0.5-5 minutes). The water main flushing job for a few weeks during the month of March / April (duration time may vary).

N.B: This assessment was based on a working population of males only.



Tasks & Description of Activities	Frequency	Duration
1. Shut off / turn on water, i.e. isolate area for flushing. i. Lift valve box lid using a valve lifter (pull-up force 9 kg at a height of 38 cm). Weight of valve lifter < 1 kg. - Occasionally, may have to lift a manhole lid (42 kg pull up force at height of 81 cm) or a catch basic grade (45 kg pull up force at height of 81 cm). Weight of manhole lifter 1.6 kg. ii. Shut off / turn on water with valve key (turning ~ 2.3 kg – varies) – average height for turning is 133 cm but could be as high as 175 cm. Valve key height to shut off / turn on water varies depending on depth of water line – generally at or below shoulder height. Weight of valve key 6.8 kg.  Lifting valve box lid  Lid lifter for regular valve boxes (38 cm long)  Valve key  	34 - 40 times per day <i>(34-66 % of shift)</i>	2 - 10 minutes per valve
Lifting manhole (occasionally)		
Lid lifter for manholes/catch basic grade (81 cm)		

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