### **AGENDA**

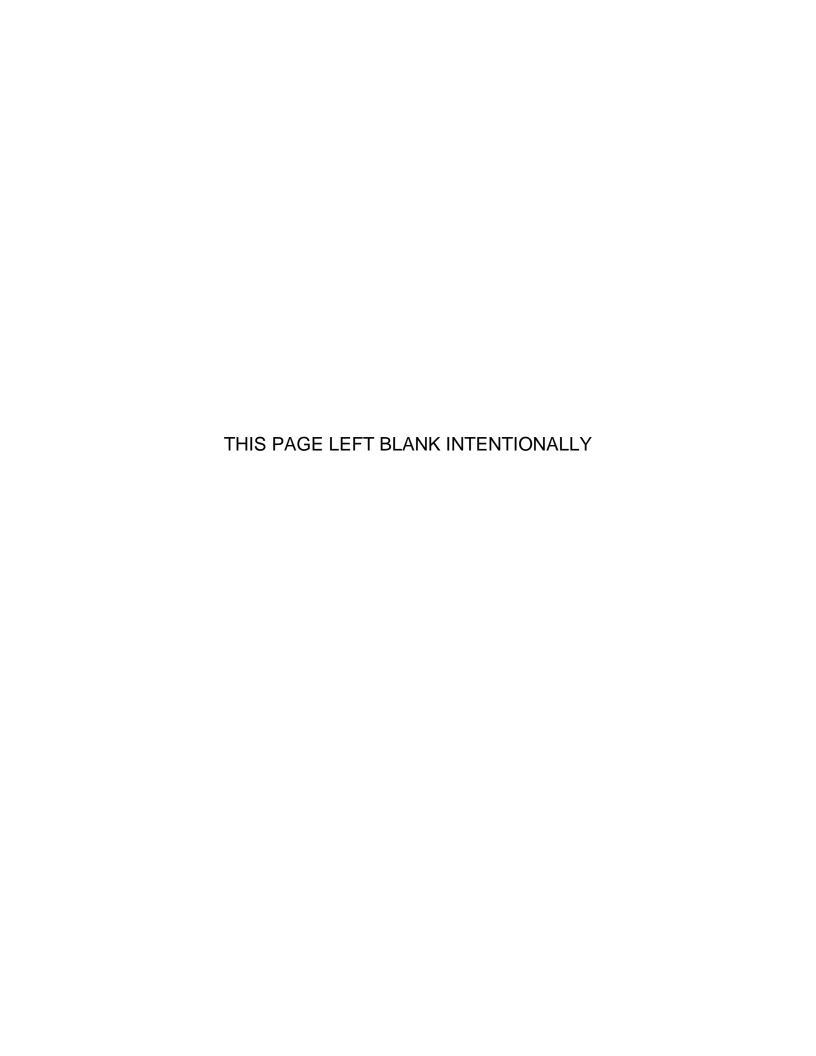
#### COUNCIL WORKSHOP

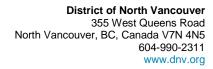
Tuesday, March 6, 2012 6:00 p.m. Committee Room, Municipal Hall 355 West Queens Road, North Vancouver, BC

#### **Council Members:**

Mayor Richard Walton
Councillor Roger Bassam
Councillor Robin Hicks
Councillor Mike Little
Councillor Doug MacKay-Dunn
Councillor Lisa Muri
Councillor Alan Nixon









#### **COUNCIL WORKSHOP**

# 6:00 p.m. Tuesday, March 6, 2012 DNV Committee Room, Municipal Hall 355 West Queens Road, North Vancouver

#### **AGENDA**

4	_			4 .	
1	INA	nina	hw	tha.	NASYAR
1.	ODE	HIHLIU	υv	uie	IVIAVUI
		3	,		Mayor

#### 2. Utilities

2.1 Inflow and Infiltration p. 5 - 18

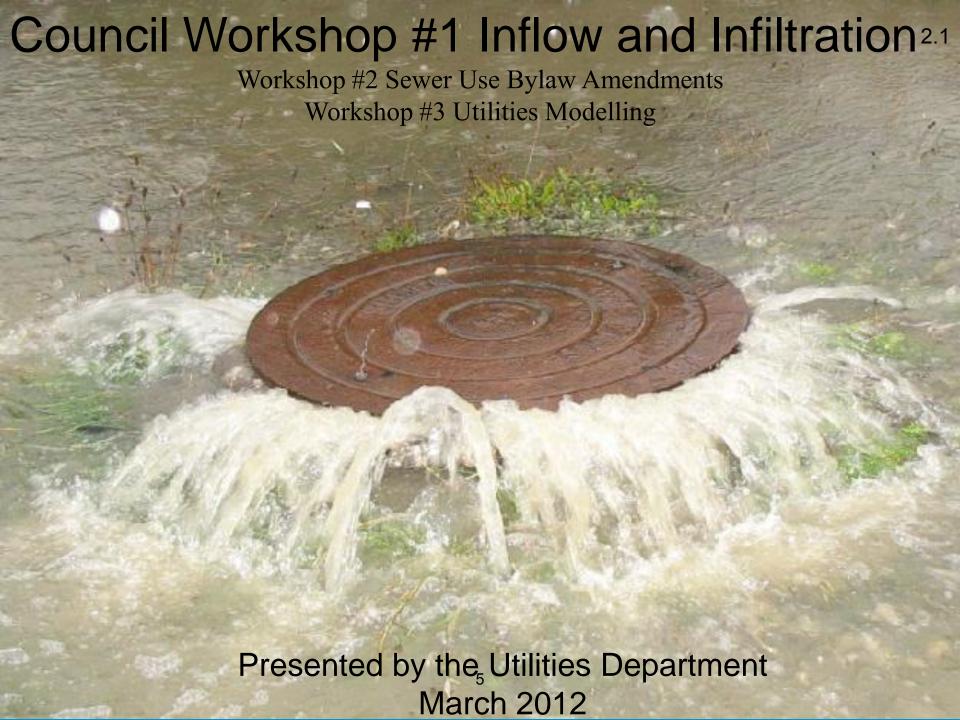
Presentation: DNV Staff

2.2 Metro Vancouver Lions Gate Secondary Wastewater Treatment Plant p. 19 - 35

Presentation: Metro Vancouver Staff

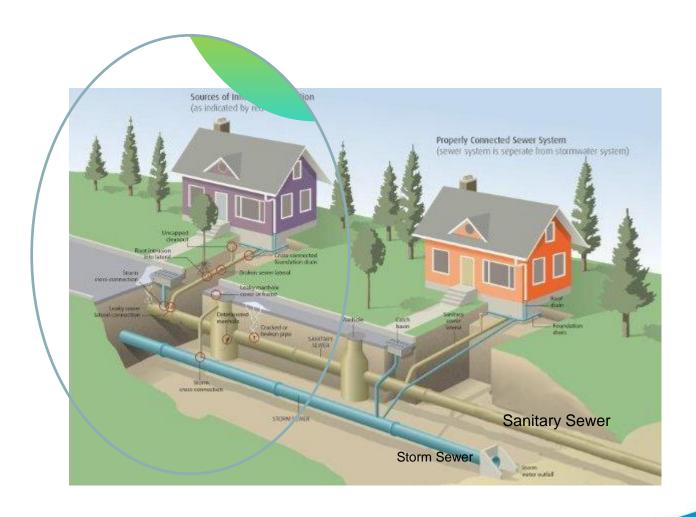
#### 3. Adjournment

THIS PAGE LEFT BLANK INTENTIONALLY



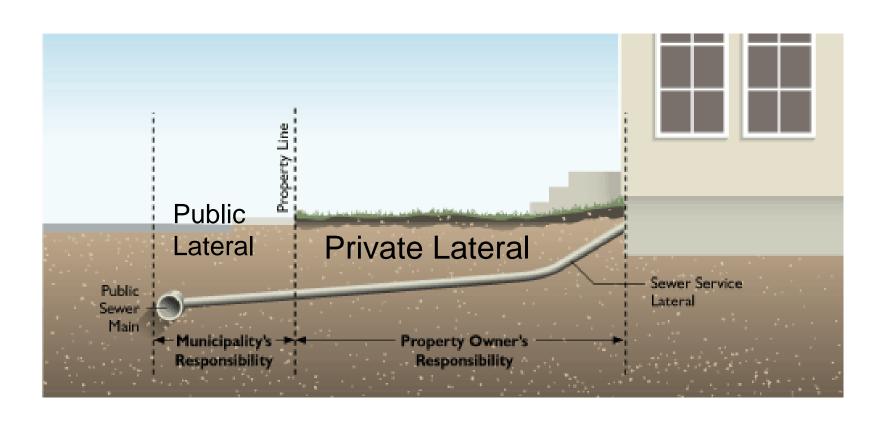


# Reality.....Fantasy





# Who's Responsible for What?





# **Background**

ILWRMP Integrated Liquid Waste and

Resource Management Plan

Goal 1

Protect Public Health and the Environment.

Goal 3

Effective, affordable and collaborative management.



# ILWRMP Active DNV Actions

- CCTV Program
- I&I Management Plan 2012
- Address causes of overflows
- Ops Infrastructure Maintenance
- Rehabilitation/Replacement Plan (100 year)
- Ensure infrastructure supports growth



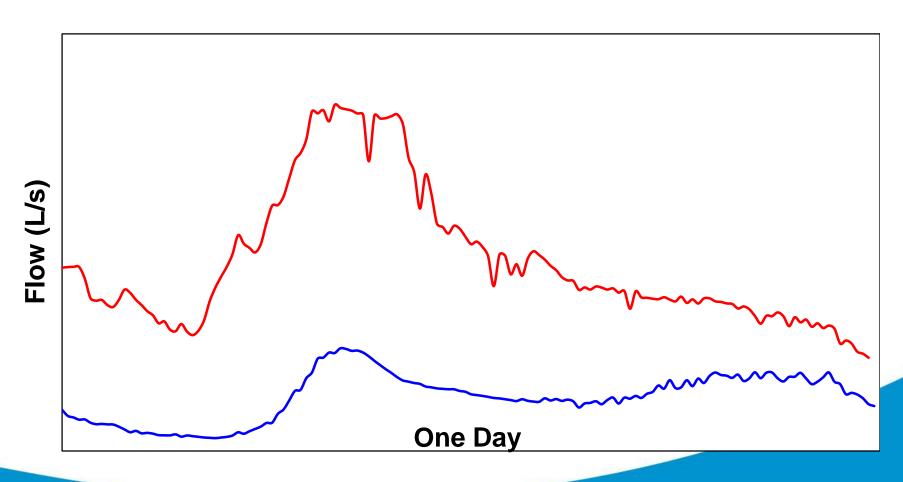
# Goal 1. Strategy 1. Planned DNV Actions

- Reduce liquid waste at the source.
  - Update bylaws to inhibited rain and ground water entering the sanitary system
  - Work with Metro to prevent sanitary sewer overflows (SSO)
  - Develop and implement plans to ensure infrastructure reliability and optimal performance



## **I&I** in the DNV

**Leaky Lid Private Lateral Cross Connection** 





### **I&I Reduction Benefits**

- 1. Support design for Lions Gate WWTP
- 2. Reduce total flow anticipating ILWRMP rate structure change
- 3. Achieve our mandated ILWRMP actions
- 4. Accommodate OCP growth efficiently
- 5. Defer or eliminate capital projects
- 6. Develop I&I reduction relationships
  - Method: Removal
  - Cost: Benefit



### **I&I Video Overviews**

(compliments of the Capital Regional District)

- I&I. The Impact to our System.
- I&I: Defects on the Private Side.



# **I&I Reduction Strategy**

- Why Laterals?
  - 50% of sewer pipe is lateral
  - Source of 30-70 % I&I





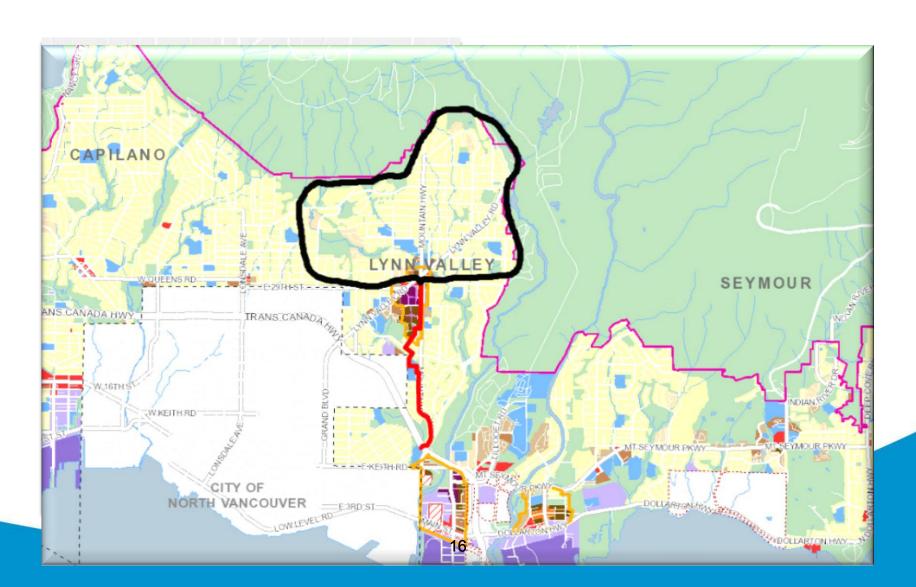


# Lynn Valley Town Centre Pilot Area

- Accommodate expected OCP Town Center growth.
- Defer or eliminate proposed \$15M Metro tank
- Defer DNV capital sewer main replacement
- Identify DNV I&I removal potential & impact



# **Lynn Valley Sewer System**





### **Future Actions**

- Council Workshop #2:
  - Sewer Use Bylaw Amendments
    - 1. Private Lateral Program Approaches
      - Incentive Based
      - Regulatory Based
- Council Workshop #3:
  - Water and Sanitary Computer Models



# Lions Gate Secondary Wastewater Treatment Plant

**Project Definition Phase** 

District of North Vancouver Presentation to Council

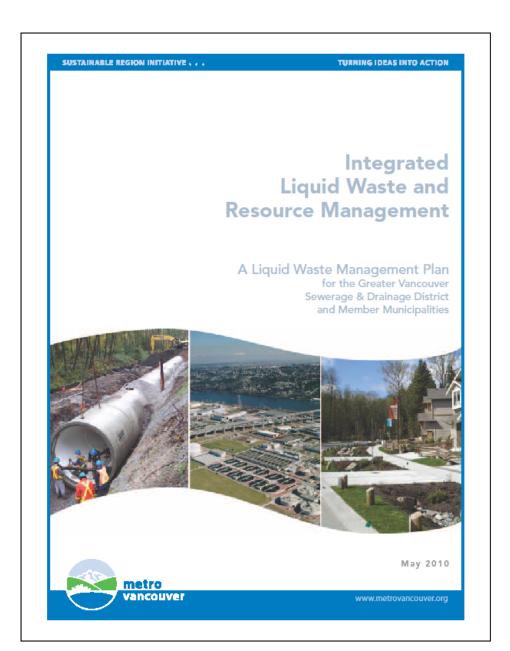
> LGSWWTP Webpage Link March 6, 2012

> > Orbit 5955538



Liquid waste continues to be managed safely, affordably, and effectively

The Lions Gate Plant upgraded to secondary level treatment by 2020



# Lions Gate Wastewater Treatment Plant Location Map



# Four Key Project Objectives

Secondary Wastewater Treatment

Sustainability
Environmental, Social, Economic

Integrated Resource Recovery

Community Integration

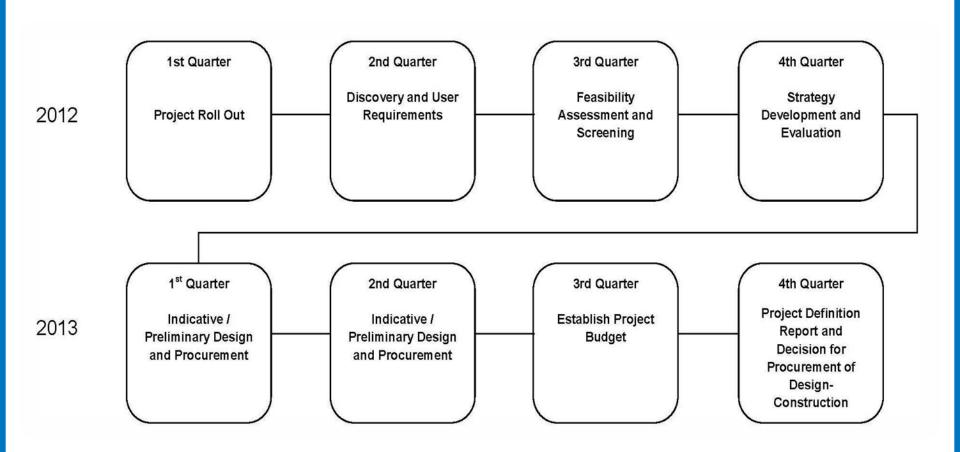
# **Project Phases**

Decommission the Old Plant 2020

Design & Construction 2014 - 2019

Project Definition 2012 - 2013

# Project Definition Phase Timeline



# **Integrated Design Process**



## Infrastructure Canada Announcement

Existing Building Canada Fund Ends in 2014

Approach for a New Longterm Infrastructure Plan



# Potential Funding Sources for Project Definition Phase



Building Canada Plan – Major Infrastructure Component







General Strategic Priorities Fund / Innovation Fund

# **Engagement and Consultation**

All phases: January 2012 – January 2021

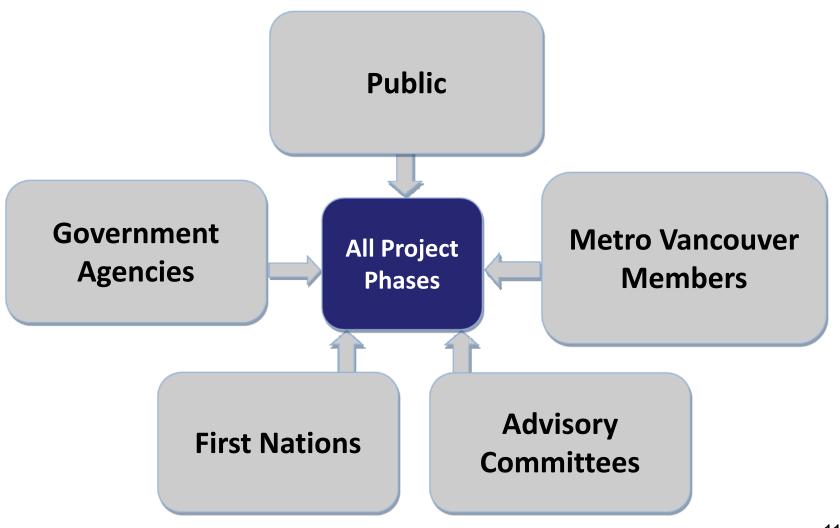


Project Definition

Design and Construction

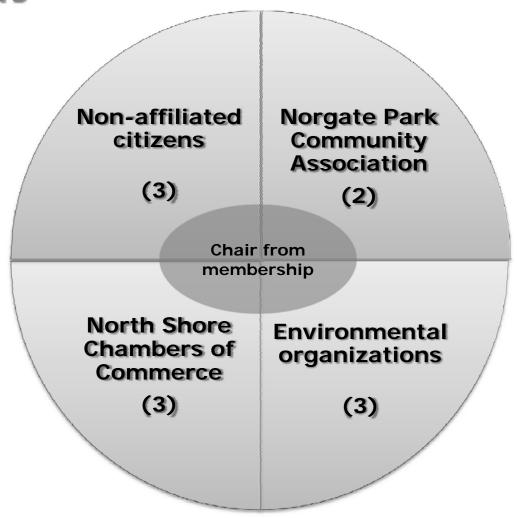
Decommission Existing Plant

# **Target Audiences**



## **Public Advisory Committee**

11 members



## **Public Advisory Committee**

#### **Selection Process**

MV develops selection criteria with input from North Shore staff

Meetings with key interest groups to request representatives

Advertising and review of resumes for non-affiliated members



### **First Nations**

Approximately 30 First Nations, Tribal Councils and Treaty Groups/ Associations have traditional territories or interests within the project area.

Squamish and Tsleil-Waututh Nations included in the engagement process.

Invited to sit on Lions Gate Technical Advisory Committee and separate meetings, as required.

2 14

## **Government Agencies**

BC Ministry of Environment approval for an Operational Certificate required for new plant

Metro Vancouver will notify and consult relevant federal and provincial government agencies

Opportunities for participation include the Lions Gate Technical Advisory Committee

33 15

### **Activities in 2012**

#### Ongoing engagement with:

- Metro Vancouver committees,
- First Nations, and
- North Shore councils.



34 16

# Lions Gate Secondary Wastewater Treatment Plant

**Project Definition Phase** 

District of North Vancouver Presentation to Council

> LGSWWTP Webpage Link March 6, 2012

> > Orbit 5955538



THIS PAGE LEFT BLANK INTENTIONALLY