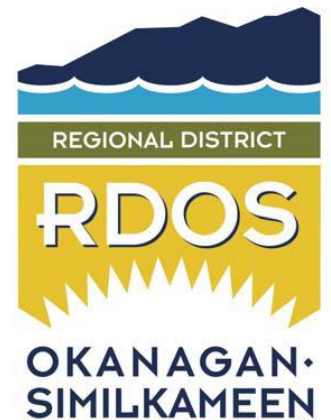




# Regional District of Okanagan-Similkameen

AECOM Canada

Piero Galvagno, P.Eng.  
Tim Forty, P.Eng.





# Liquid Waste Management Plan Amendment

## Advisory Committee

Meeting March 12, 2009



## Advisory Committee Meeting - March 5, 2009

### Agenda

- Introductions
- Meeting Objectives
- Presentation by Tim Forty
  - Liquid Waste Management Planning - Basics
- Presentation by Piero Galvagno
  - Known Issues
  - Previously Identified Options
  - Wrap-up

# Introductions



## Advisory Committee Members

ORGANIZATION	TITLE	FIRST_NAME	LAST_NAME	Contact email	Bus. Phone
RDOS	Mr.	Alf	Hartviksen	<a href="mailto:ahartviksen@rdos.bc.ca">ahartviksen@rdos.bc.ca</a>	250-490-4210
RDOS	Ms.	Liisa	Bloomfield	<a href="mailto:lbloomfield@rdos.bc.ca">lbloomfield@rdos.bc.ca</a>	250-490-4229
AECOM	Mr.	Piero	Galvagno	<a href="mailto:piero.galvagno@aecom.com">piero.galvagno@aecom.com</a>	250-762-3727
AECOM	Mr.	Tim	Forty	<a href="mailto:tforty@shaw.ca">tforty@shaw.ca</a>	
Ministry of Environment, Environmental Management	Mr.	Michael	Reiner	<a href="mailto:Mike.Reiner@gov.bc.ca">Mike.Reiner@gov.bc.ca</a>	250-490-8206
Ministry of Environment, Environmental Management	Ms.	Geri	Huggins	<a href="mailto:Geri.Huggins@GOV.BC.CA">Geri.Huggins@GOV.BC.CA</a>	250-490-8200
Ministry of Agriculture and Lands	Mr.	Carl	Withler	<a href="mailto:Carl.Withler@gov.bc.ca">Carl.Withler@gov.bc.ca</a>	250-861-7229
Ministry of Community Development	Mr.	Catriona	Weidman	<a href="mailto:Catriona.Weidman@gov.bc.ca">Catriona.Weidman@gov.bc.ca</a>	250-952-6517
Interior Health	Mr.	Jean	Beaupre	<a href="mailto:john.beaupre@interiorhealth.ca">john.beaupre@interiorhealth.ca</a>	250-868-7818
Environment Canada	Ms.	Julia	Brydon	<a href="mailto:julia.brydon@ec.gc.ca">julia.brydon@ec.gc.ca</a>	604-666-2399
Penticton Indian Band	Mr.	Greg	Gabriel	<a href="mailto:ggabriel@pib.ca">ggabriel@pib.ca</a>	250-493-0048
Local Citizen	Ms.	Eleanor	Walker		250-497-5445
Local Citizen	Mr.	Ted	Lynch	<a href="mailto:tlynch@telus.net">tlynch@telus.net</a>	250-497-8263
Local Citizen	Mr.	Souren	Mukherjee		250-497-6760
Local Citizen	Mr.	Sam	Hancheroff	<a href="mailto:shancher@sd53.ec.ca">shancher@sd53.ec.ca</a>	250-497-5878
Local Citizen	Mr.	Ken	Hayter	<a href="mailto:hayterk@shaw.ca">hayterk@shaw.ca</a>	250-497-5347
Local Citizen	Mr.	Ed	Melenka	<a href="mailto:emelenka@shaw.ca">emelenka@shaw.ca</a>	250-497-8869
Local Citizen	Mr.	Dan	Larter	<a href="mailto:dan1_2002@hotmail.com">dan1_2002@hotmail.com</a>	250-497-7993

# Meeting Objectives



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## Objectives Of This Part Of The Meeting...

- To introduce the Advisory Committee (AC) members
- To provide the AC with a basic understanding of...
  - Liquid Waste Management Plans (LWMPs)
  - The LWMP process, and
  - Their roles in that process

# Presentation Outline





## Presentation Outline

- What is a Liquid Waste Management Plan (LWMP)?
  - Why develop a LWMP?
  - Why Amend a LWMP?
- How do you develop a LWMP?
- What are the roles and responsibilities?
  - Steering Committee?
  - Advisory Committee?
  - Elected Representatives?



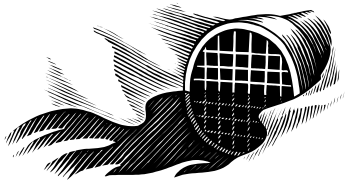
**Any questions before we move on?**

## What Is A Liquid Waste Management Plan?



## What is a Liquid Waste Management Plan (LWMP)?

- A LWMP is a plan for a local government that charts the future course of action with respect to...



- Sewage
  - Stormwater, and
  - other wastewaters
- 
- The plan generally addresses...
    - Management and Collection
    - Treatment and Effluent Disposition

## What is a LWMP? ...continued

- A LWMP can also deal with...
  - Lot sizes and zoning in unsewered areas
  - Water conservation programs, and
  - Public education programs for improving septic systems performance



## What is a LWMP? ...continued

- A LWMP is a tool used to develop **cost-effective** solutions to address local liquid waste issues which allows a community to...
  - Protect health and the environment
  - Develop strategies to minimize wastewater generation
  - Meet water conservation goals
  - Maximize use of reclaimed water, and
  - Address storm water issues



## What is a LWMP? ...continued

- Public participation is **mandatory** for the development of an effective LWMP, to ensure the Plan reflects the needs of the community, now and for the future
- This is especially important as the implementation of any recommendations will be funded by those in the Plan area



**Any questions before we move on?**

**Why Develop A LWMP?**



## Why Develop a LWMP?

- Advance planning can ensure that current and **future needs** for the management of liquid wastes for the community are met
- LWMPs save both the environment and the taxpayer by creating **proactive solutions** rather than the more costly option of reacting to problems as they arise



## Why Develop a LWMP?

- A LWMP provides an opportunity for ratepayers to assist in the process of selecting the best option for managing liquid wastes in their community and that can increase local support for current and future implementations
- There is a higher likelihood of obtaining grant monies for implementation of a LWMP which not only shows the community's needs, but also identifies the environmental and health benefits



**Algae Bloom Due To  
Excessive Nutrients**



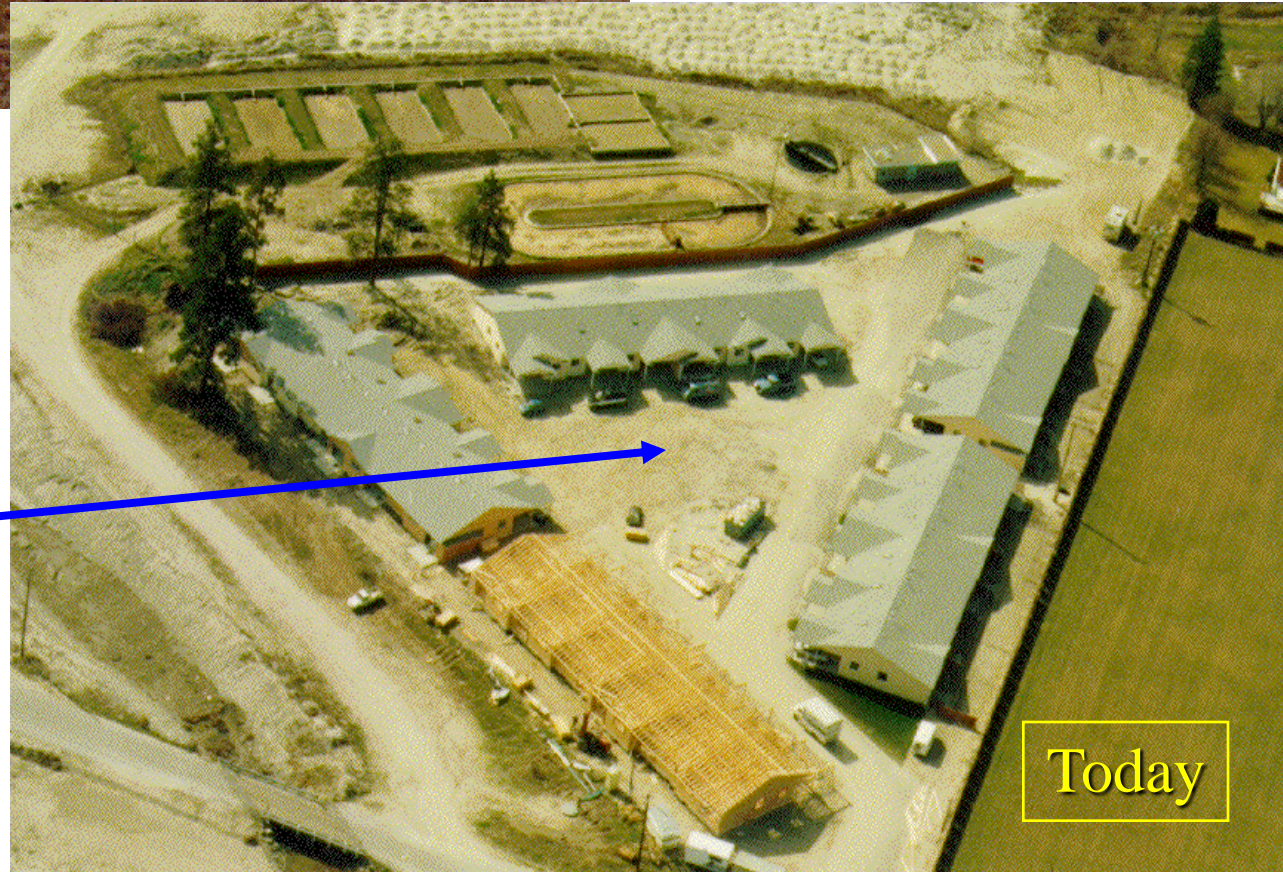
# Municipal STP



Originally

Lack of  
Planning!

Seniors  
Residential  
Complex

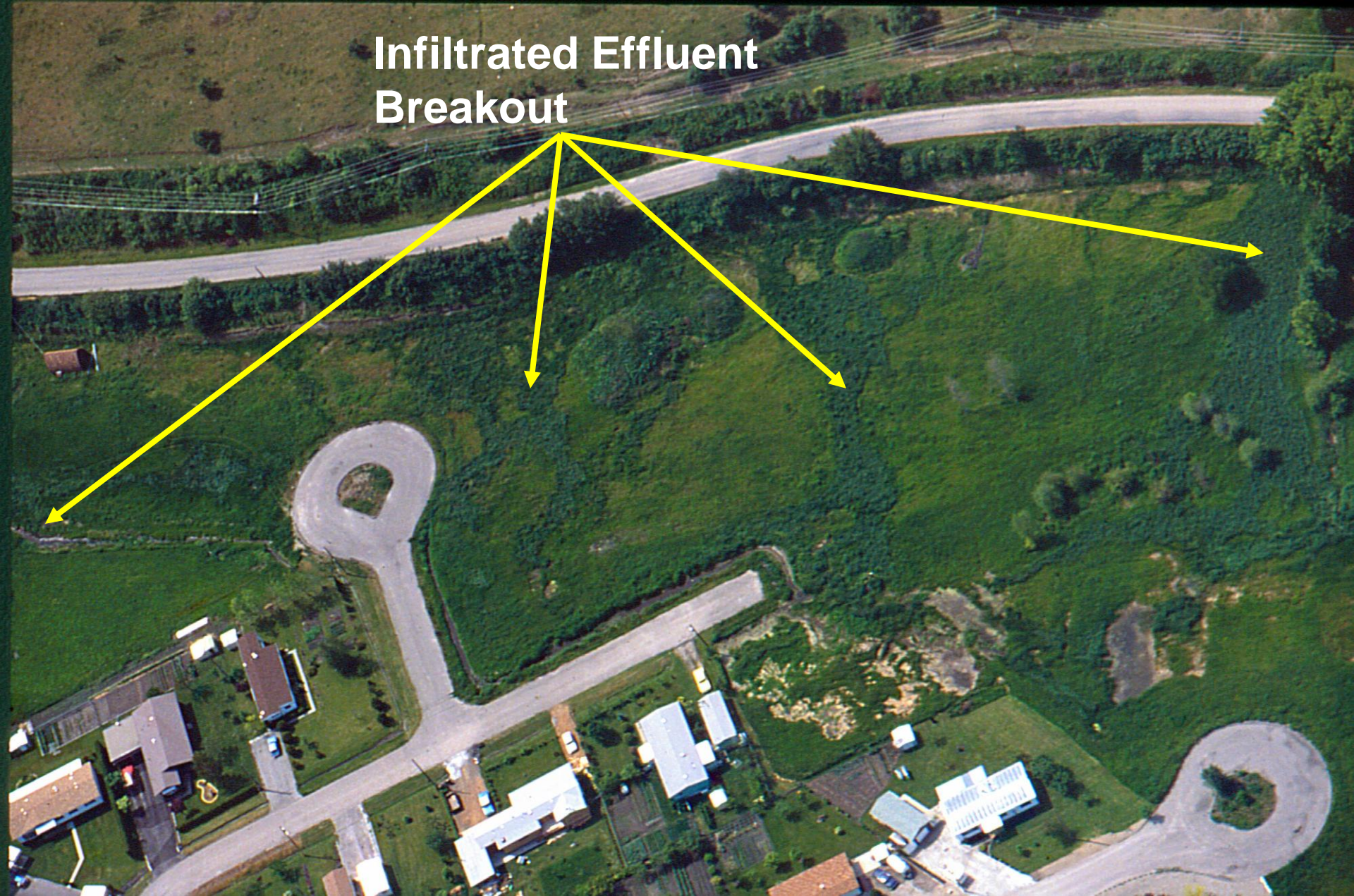


Today



**Septage breakout below  
hillside subdivision**

# Infiltrated Effluent Breakout



**Any questions before we move on?**

**Why Amend a LWMP?**



## Why Amend a LWMP?



- There is a change in direction from the previous plan or a different approach, for example:
  - Small satellite plants or a single large treatment plant?
  - On-site disposal or community collection?
  - Outfall, Irrigation, Infiltration or Wetland Enhancement?
- Or...A new option, issue, social change, or technology
  - Relocation of the existing STP to a new site

## **RDOS OK Falls already HAS an approved LWMP... Why do we need to amend it?**

- Existing STP is nearing capacity
- STP operation provides issues for nearby residents
- Existing effluent infiltration site nearing maximum capacity
- The Regional District and MOE have jointly made the decision that it is in the public interest that the options available be publicly reviewed using the LWMP process





Any questions before we move on?

## How Do You Develop A LWMP?



And... How Do You *Amend* This LWMP?

## How do you develop a LWMP?

### Ground rules:

- Identify and solicit input from appropriate...
  - government agencies
  - Non Government Organizations (NGOs)
  - First Nations
  - special interest groups (if any), and
  - the general public in the plan area
- Answer all questions completely and openly
- Consider all ideas suggested
- Discard suggested options only for sound technically defensible reasons with clear explanations

## How do you develop a LWMP?

### Ground rules:

- RDOS Board makes decision on the “Preferred Solution” at the end of Stage 2 **only** after carefully considering all information
  - This includes feedback from the Advisory Committee and from an **informed** public

# How do you develop a LWMP?

## Stage I: Data Gathering

- Background on current status
  - Environmental or Health issues
  - Status of the existing system
- List and Outline of potential options suggested by
  - The public
  - First Nations
  - Government agencies
  - NGOs
  - Special interest groups
  - Staff, and
  - The Consultant

## How do you develop a LWMP?

### Stage II: Option Development, Cost Analysis & Option Selection

- Provide details for each identified option
  - Develop options in sufficient detail to permit comparison
    - Pros and cons of each option presented
    - Staging and phasing of upgrades shown
    - Cost Analysis developed to permit Order of Magnitude cost comparisons of options - including costs on a per household basis\*
    - Environmental and health pros and cons outlined
- Provide clear and reasoned explanation for those options that are technically impractical

## How do you develop a LWMP?

### Stage II: Option Development, Cost Analysis & Option Selection

- Advisory Committee selects their “Preferred Solutions”
- “Preferred Solutions” are presented to the public at an advertised public information meeting
- “Preferred Solutions” are presented to the RDOS Board for consideration based upon the information developed throughout the LWMP process and – **most importantly** – feedback from the Advisory Committee and from an **informed** public

## How do you develop a LWMP?

### Stage III: Executive Summary

- Provides details of the “Preferred Solutions”
- Outlines process followed
- Explains options not selected and why
- Outlines plan details
  - Level of treatment and effluent disposition
  - Schedule of stages and phases for treatment plant & collection system upgrades

**Note:** This is **not** new information but is extracted and condensed from Stage 2 report

- Lists needed bylaws and identifies who is to prepare them

## How do you Amend *this* LWMP?

- Identify all options
  - List identified options
  - Review with AC – Any other options?
- Select the “Preferred Solution”
  - Develop options
  - AC picks “Preferred Solution(s)”
- Public Information meeting – Confirm “Preferred Solution(s)”
- Finalize combined Stage 1 / 2 report

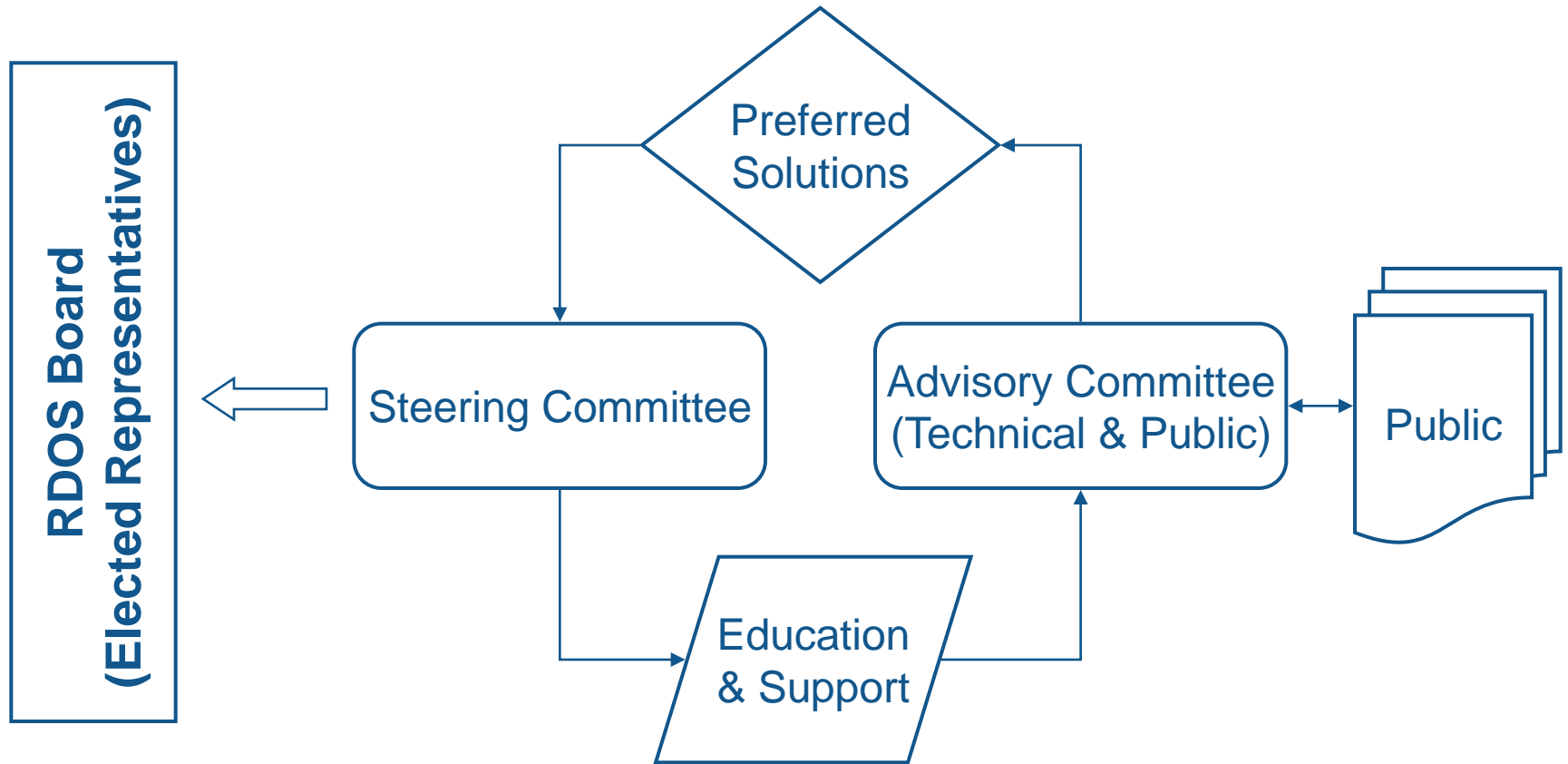


**Any questions before we move on?**

## Committee Reporting Structure?



## Committee Reporting Structure



**Any questions before we move on?**

**What is the Role of the Steering Committee?**



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## What is the Role of the Steering Committee (SC)?

- All other committees report to the Steering Committee
- Responsible for ensuring that the RDOS Board is kept informed of progress
- Involved in a process guidance role to ensure that no option is summarily dismissed

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## What is the Role of the Steering Committee?

- **Steering Committee Members**
  - Regional District of Okanagan-Similkameen
  - Ministry of Environment, and
  - AECOM (The Consultant)

**Any questions before we move on?**

**What is the Role of the Advisory Committee?**



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## What is the Role of the Advisory Committee (AC)?

- The AC, in this LWMP, is a team that combines the Technical Advisory Committee and the Public Advisory Committee
- Acts in an advisory capacity to the Steering Committee
- Provides insight as to community objectives for inclusion in the Plan
- Provides feedback that will help ensure that proposed programs and policies are in the best interests of all residents of the OK Falls area and any other areas that may benefit from this LWMP

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## What is the Role of the Advisory Committee?

- Reviews information and provides comments, concerns, ideas, and potential opportunities for consideration in developing the LWMP
- Selects a “Preferred Solution” or mix of “Preferred Solutions” from the identified options
- Reviews and provides input on the public consultation process, broader communications, media relations, and the timing and location of consultation sessions with the community



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## What is the Role of the Advisory Committee?

- Assists with the public meetings and open house events
- Acts as liaison to larger stakeholder group(s), with the assistance of information summaries developed as part of the public consultation process
- It is anticipated that some members of the committee, notably the government agencies, will not personally attend meetings, but will provide relevant comments relating to their agency mandates

## What is the Role of the Advisory Committee?

- **Includes representatives from a diverse group, for example...**
  - OK Falls and Area residents (general public)
  - RDOS Staff\*
  - First Nations
  - Ministry of Environment
  - Ministry of Transportation
  - Interior Health Authority
  - Environment Canada
  - Okanagan Basin Water Board
  - Agricultural Land Commission
  - Fisheries and Oceans Canada
  - Consultants – AECOM\*

**Any questions before we move on?**

**What is the Role of Elected Representatives?**



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## What is the Role of Elected Representatives?

- To keep aware of LWMP developments
- To encourage the public to become aware of the issues and options
- To await feedback from an informed public
- To make decisions at the end of Stage 1 / 2 based on feedback from the advisory committee and from an informed public

## What is the Role of Elected Representatives?

- To maintain an impartial viewpoint and when pressured to voice an opinion, comment that the elected representative's job in the LWMP is to make a decision regarding the management of wastewater in the RDOS OK Falls Area **only** after all the options have been presented to the public and the public have provided feedback as to their "Preferred Solution"

**Any questions before we move on?**

## LWMP Overview summary



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## LWMP Overview Summary

- A LWMP is a tool which allows the citizens of a community to understand the issues in their community, with respect to wastewater, and assists them in selecting the best option for the resolution of those issues
- A LWMP belongs to the community which developed it
- The job of the consultant and Regional District staff is to ASSIST in developing the LWMP, by providing clear, understandable, technical and cost information

**Piero Galvagno's Presentation...**

**Issues and Options**