



Regional District of Central Okanagan

Engineering Services Department



Upper Fintry & Valley of the Sun

Exploring the Feasibility of a Community
Water System

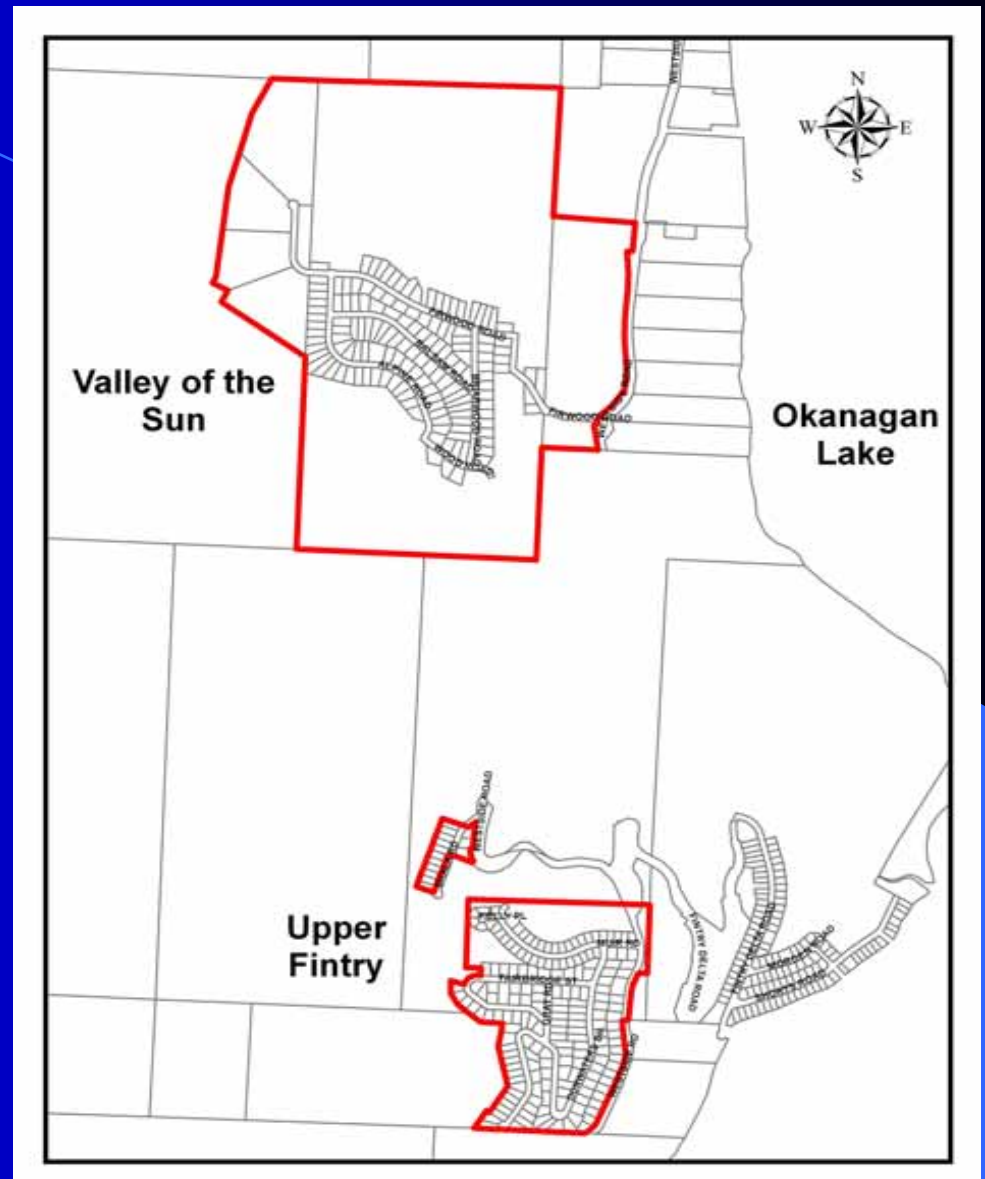
Engineering Services Department

Agenda

- **Introductions**
- **Background**
- **North Westside Water Report (Agua Consulting)**
- **Water Servicing Options**
- **Estimated Costs / Payment Options**
- **Service Area / Petition**
- **Infrastructure Grants**
- **RDCO Comments**
- **Discussion**

Background

- Valley of the Sun – 153 Units
- Upper Fintry – 206 Units
- Subdivisions occurred 1966 – 1970. Community water systems were not a subdivision requirement at that time.
- Residents have asked RDCO to explore the feasibility of providing a community water system. At this time some residents have groundwater wells, others are hauling in their water supply.



North Westside Water Report (1)

Agua Consulting Inc.

- Explores the feasibility of providing domestic water and fire flows to Upper Fintry and Valley of the Sun;
- Did not consider utilizing or expanding existing water systems in the area. (i.e. Fintry Provincial Park, Lower Fintry, La Casa);
- Looked at a stand alone system only, with costs provided for various configurations of existing and future development (Kubas);
- Concludes that the more parcels are included in a stand alone system, the lower the capital cost per parcel;

North Westside Water Report (2)

Agua Consulting Inc.

- Proposes a water system that will meet the following criteria:
 - RDCO Subdivision & Development Servicing Bylaw No 704;
 - Water quality and filtration standards of the Interior Health Authority;
 - BC Safe Drinking Water Regulations;
 - Fire flow and duration of the Fire Underwriters Survey and other industry standards.
- Identifies a potential site for a storage reservoir.

Note: Fire flows and storage will not be adequate to fight a major forest fire.

Water Servicing Options

1. Status Quo
2. Okanagan Lake Water Source
3. Groundwater Source
4. Fintry Delta Water System Expansion
5. La Casa Water System Expansion

Water Servicing Option 1

Status Quo

PROS:

- No capital costs to residents;
- No water user fees;
- No construction;

CONS:

- Residents must continue to haul water;
- Residents must continue to operate wells;
- No assurance that water quality meets public standards;
- No fire flows / hydrants;
- No discount on fire insurance;
- Limited development potential.

Water Servicing Option 2 (1)

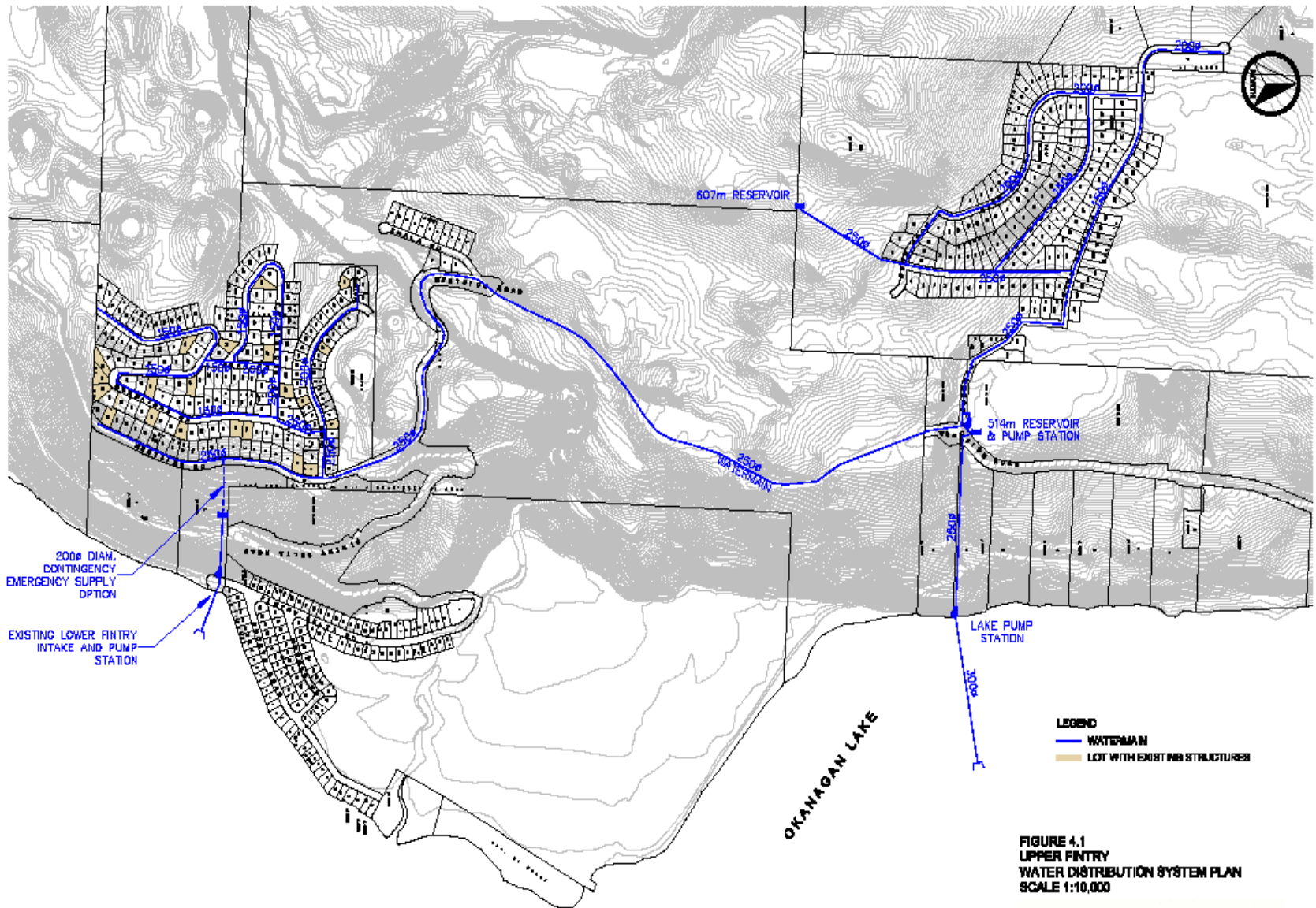
Okanagan Lake Water Source

PROS:

- Very reliable water source;
- High water quality;
- Fire flows, hydrants;
- Discount on fire insurance;
- Increased development potential.

CONS:

- Most expensive water source;
- Requires filtration to meet IHA regulations;
- Requires surface water license;
- Requires right of way for lake pump house.



Water Servicing Option 3

Groundwater Source

PROS:

- Least expensive water source;
- Fire flows / hydrants;
- Discount on fire insurance;
- Increased development potential;
- May eliminates the need for:
 - Surface water license;
 - Filtration;
 - Booster station.

CONS:

- Further hydro geological study required;
- Must secure well sites with sufficient capacity;
- Water quality risks (i.e. seepage from septic fields, nitrates in the soil, water hardness from wells).

Water Servicing Option 4

Fintry Delta Water System Expansion

Expansion of the Lower Fintry water system was not considered for the following reasons:

- Private water utility is in place;
- Substantial upgrades required to meet current standards;
- Service to residents would not improve significantly compared to the contribution they would have to make to a larger community water system;

A cross connection from the proposed water system to the existing Lower Fintry water system is possible for emergency use (i.e. in the event of a large fire, pump failure ...etc.).

Property owners in Lower Fintry would have to pay for any benefits they receive from the proposed water system.

Water Servicing Option 5

La Casa Water System Expansion

RDCO met recently with the owner/operator of the La Casa water system to discuss opportunities to service Upper Fintry and Valley of the Sun. The options being considered at this time are:

- Take over of the La Casa water system by RDCO and expansion to service Upper Fintry and Valley of the Sun;
- RDCO to enter in to a contract with the La Casa water utility for water supply to a RDCO water utility servicing Upper Fintry and Valley of the Sun;

It should be noted that the discussions with La Casa are at a very preliminary stage and that no decisions have been made. The La Casa water system is being reviewed to determine it's capacity and suitability for expansion. The RDCO will only enter into agreements with La Casa if there is a benefit to the community in doing so.

Estimated Costs (1)

The table below shows the estimated costs for the proposed community water system based solely on contributions from Upper Fintry and Valley of the Sun (no contributions from future development):

Option	Description	Areas Included	Capital Cost per REU*
1	Status Quo	UF / VOS	\$ 0
2	Okanagan Lake Water Source	UF / VOS	\$ 20,360**
		UF / VOS	\$ 17,780***
3	Groundwater Source	UF / VOS	\$ 12,160
4	Expand Lower Fintry Water System	Costs not available	
5	Expand La Casa Water System	Costs not available	

- * REU = Residential Equivalent Unit
- ** Includes Filtration
- *** Includes Disinfection Only

UF – Upper Fintry & Shala Road – 206 REUs
 VOS – Valley of the Sun – 153 REUs

Estimated Costs (2)

The table below shows the estimated costs for the proposed community water system based on contributions from Upper Fintry, Valley of the Sun, and the potential development of the Kubas property:

Option	Description	Areas Included	Capital Cost per REU*
2	Okanagan Lake Water Source	UF / VOS / K1	\$ 18,800**
		UF / VOS / K2	\$ 15,630**
		UF / VOS / K1	\$ 16,390***
		UF / VOS / K2	\$ 13,620***
3	Groundwater Source	UF / VOS / K1	\$ 11,450
		UF / VOS / K2	\$ 9,520

* REU = Residential Equivalent Unit

** Includes Filtration

*** Includes Disinfection Only

UF – Upper Fintry & Shala Road – 206 REUs

VOS – Valley of the Sun – 153 REUs

K1 – Kubas Development (min) – 50 REUs

K2 – Kubas Development (max) – 133 REUs (200 Multi Family Units)

Payment Options

There are two options for paying your share of the capital costs for constructing the community water system:

- One time lump sum payment; or
- Debt Servicing Fee.

Lump Sum Payment

If you decide to pay your share of the capital costs by lump sum:

- The entire capital cost must be paid in full;
- Partial payments are not permitted;
- Payment is not due until after construction has been completed;
- You may want to make arrangements with a financial institute or private individual to borrow funds to make a one time payment.

Debt Servicing Fee (1)

If you decide to pay your share of the capital costs by Debt Servicing Fee (DSF):

- DSF would be applied for a period of twenty years;
- DSFs are charged on your January utility bill and you have until December 15th of each year to make payment;
- Any unpaid balance on December 15th is placed onto your property taxes, and penalties and interest would be applied;
- Based on today's borrowing policy you would have the option to pay out the balance after ten years;
- After ten years the debt would be re-financed and the interest rate may change;

Debt Servicing Fee (2)

- The provincial Tax Deferment Program for Seniors does not apply as the debt is not being placed directly onto your property taxes;
- If you sell your property, the debt remains with the property and the DSF for the remaining amortization period is paid by the buyer;
- Some examples of the Debt Servicing Fee, based on today's interest rates are show in the table below:

Lump Sum Payment	Amortization Period	Interest Rate	Annual Debt Servicing Fee
\$ 10,000	20 years	5 ½ %	\$ 853
\$ 15,000	20 years	5 ½ %	\$ 1,279
\$ 20,000	20 years	5 ½ %	\$1,705
\$ 25,000	20 years	5 ½ %	\$2,132

Other Costs (1)

The capital costs for the water distribution system bring the water to the edge of your property. In addition to the capital costs there are other costs, such as:

- On-site cost to connect your residence to the water system;
- Application for connection fee, currently \$200 per residential unit;
- Water user fee for occupied parcels (see next slide);
- Water maintenance fee for vacant parcels (see next slide);
- Water meter fee, currently \$440 for a 19 mm (3/4 inch) diameter service connection.

Other Costs (2)

User Fees for the proposed water system have not yet been established, as they will depend on system maintenance costs, equipment reserve amounts....etc.

User Fees and Maintenance Fees that are currently charged in other RDCO Water Systems are shown in the table below:

RDCO Water Utility	Annual User Fee (Occupied)	Annual Maintenance Fee (Vacant Lot)
West Kelowna Estates	\$ 276.76	\$ 63.04
Sunnyside (Metered)	Flat Rate: \$ 260.00 Plus Metered Consumption: <ul style="list-style-type: none">▪ 0-100 m³ @ \$0.05 per m³▪ 101-300 m³ @ \$0.10 per m³▪ 301 m³ + @ \$0.22 per m³	\$ 168.00
Killiney Beach	\$ 330.12	\$ 120.00
Westshore Estates	\$ 340.12	\$ 130.00

Service Area / Petition

- To provide the water service RDCO must obtain ascent from the electorate and create a Local Service Area under the provisions of the Local Government Act, either by referendum, the alternate approval process, or most likely in this case, by petition;
- A formal petition would be circulated by mail to all registered property owners identifying estimated costs;
- The petition must be supported by >50% of the property owners who own more than 50% of the net taxable value of all land and improvements in the area;
- If the petition is successful RDCO would prepare the necessary bylaws.

Infrastructure Grants

- A \$5,000 Planning Grant has been issued by the Provincial Government in support of the study;
- Other grants can be applied for under the Canada / British Columbia Infrastructure Program;
- The success of such grant applications depends on the following:
 - Availability of funds in the grant program;
 - Compliance with the goals of the granting organization;
 - Prioritization of the project within the applying organization.

RDCO Comments

- At this time the Regional District is only trying to determine the potential support in the community for the proposed water system prior to committing additional funds and resources to explore options other than the stand alone system using Okanagan Lake as the water source. (i.e. hydro geological study to prove groundwater, expansion of the La Casa water system);
- There is no guarantee that future development will happen, or that government grants will be available. Residents should base their decision to support, or not support, the proposed water system, on the estimated costs provided, without relying on contributions from future development, or government grants;
- The costs provided are **not fixed costs**. They are estimated costs only and, if the project proceeds, could be higher or lower upon completion of the project.

Discussion