# Isle of Seil

# Scottish Water Options

# Review

21 June 2021

# Agenda

| | | |
|---|---|---|
| Welcome & Introductions | (14.00 - 14.05) | Jenni Minto MSP Chair |
| Re-cap from previous meeting | (14.05 - 14.10) | Alan Thomson Scottish Water |
| Options Review | (14.10 - 14.20) | Paul Sexton Scottish Water |
| UV Treatment at existing site | (14.20 - 14.30) | Karen Dee Scottish Water |
| Costs and Benefits | (14.30 - 14.40) | Paul Sexton Scottish Water |
| Discussion and Next Steps | (14.40 - 15.00) | All |

# Our commitment to the Community

1. Finalise review of existing Hillside Option 1a costings
2. Technical, feasibility review and costing of UV treatment of storm flows
3. Independent technical assessment of UV treatment of storm flows
4. Review, comparison and full Investment appraisal of options

# Investment Appraisal

## Retain Balvicar


Retain Balvicar

>3l/s Side Stream Filter

Side Stream UV

## Hillside


Balvicar Pumping Station & Transfer Pipelines

Septic Tank

Submerged Aerated Filter

Final Settlement Tanks
UV

>6l/s CSO pipeline

## Easdale


Balvicar Pumping Station & Transfer Pipelines

Septic Tank

UV

Seaview Septic Tank

Seaview Septic Tank

All options subject to planning, licensing approval and land

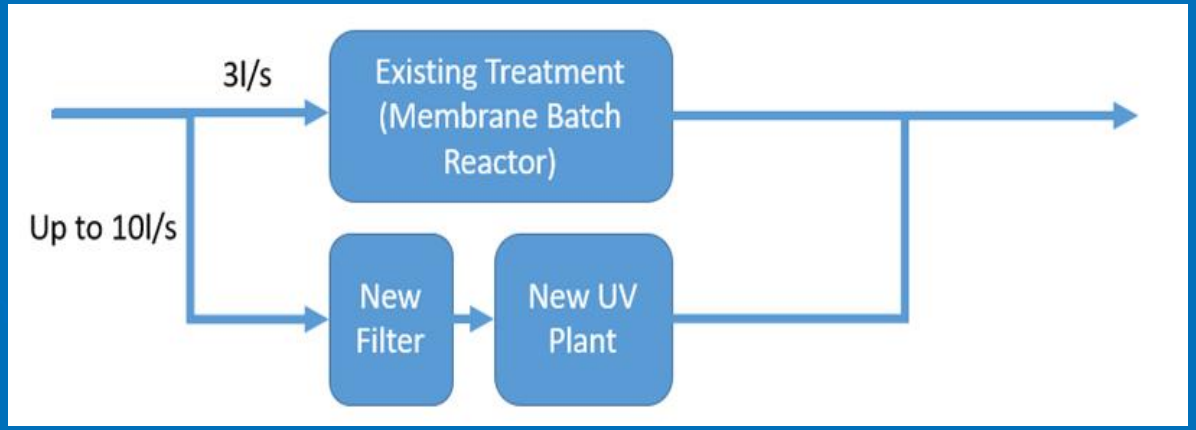
# UV Feasibility

Appointed Industry Expert:

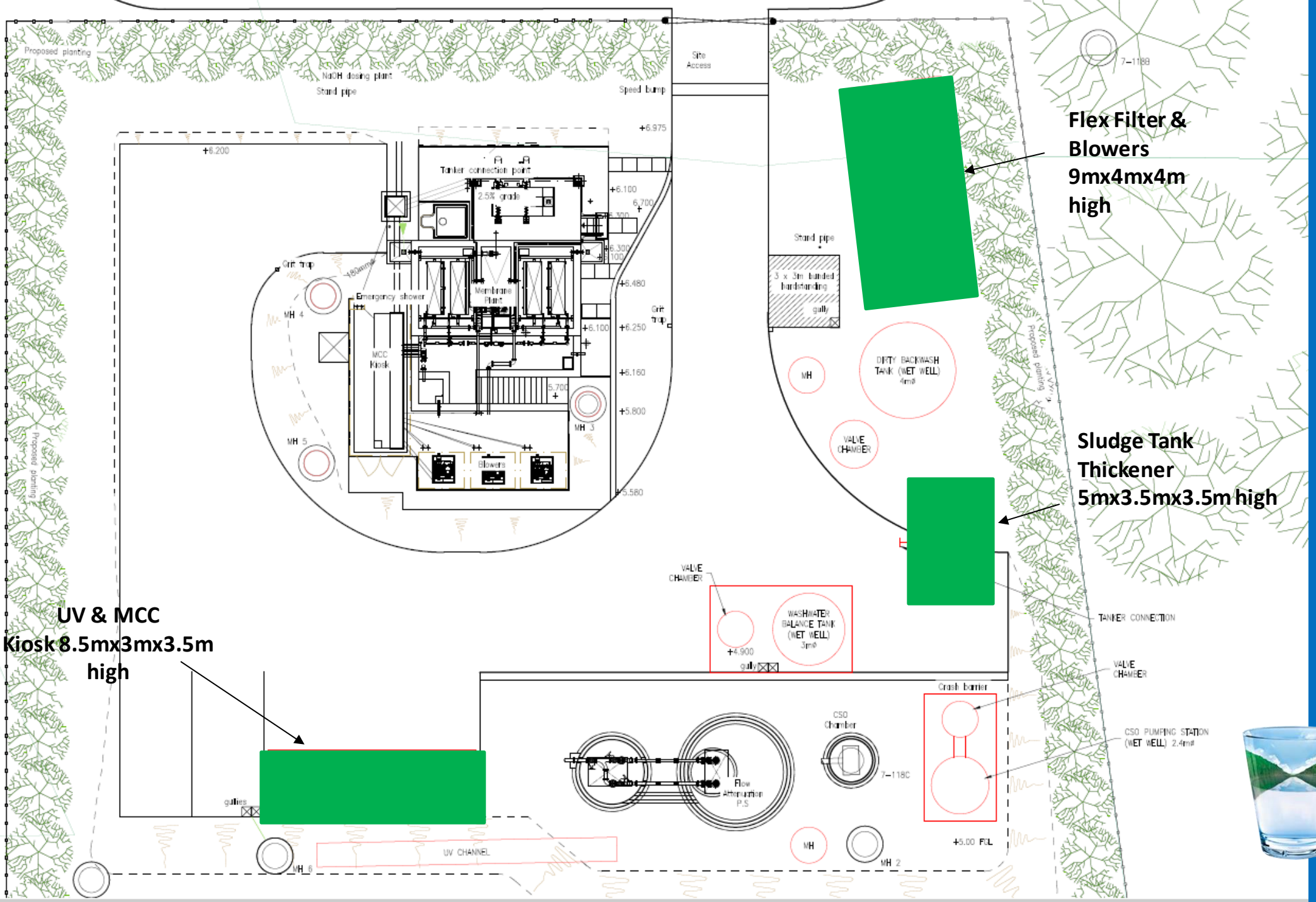
- Technical assessment of technologies to disinfect stormwater.
- Assess the application of UV technologies at Balvicar

Findings:

- Cross Industry research has led to changes in Design approach for sizing UV plants
- At Balvicar, with pre-treatment upstream of UV treatment, the side stream discharge is predicted to achieve estimated SEPA quality standards




Preliminary layout Balvicar



Existing view looking east

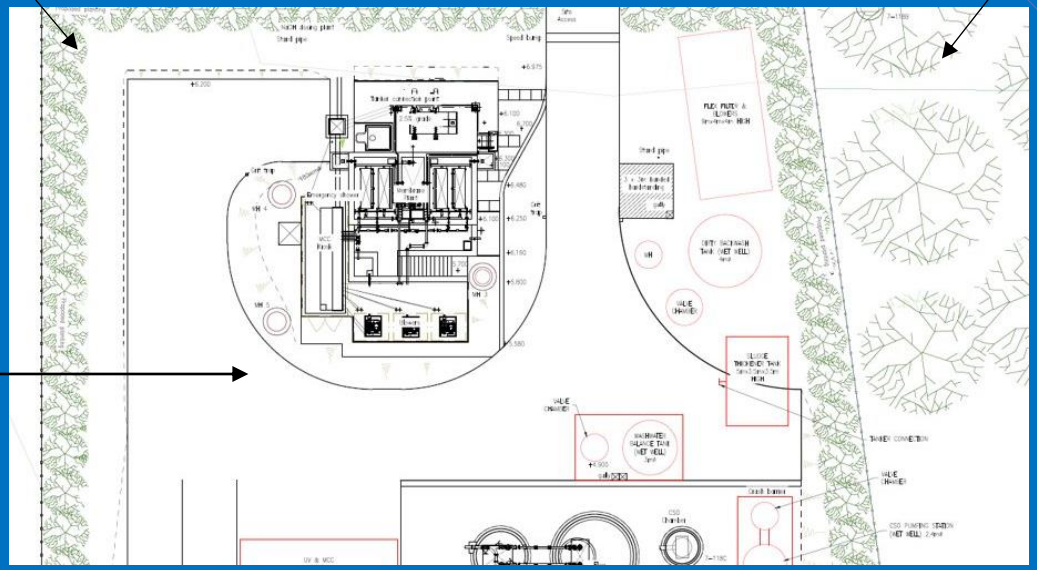
Proposed view looking east

Existing view looking west

Proposed view looking west

Existing view looking east

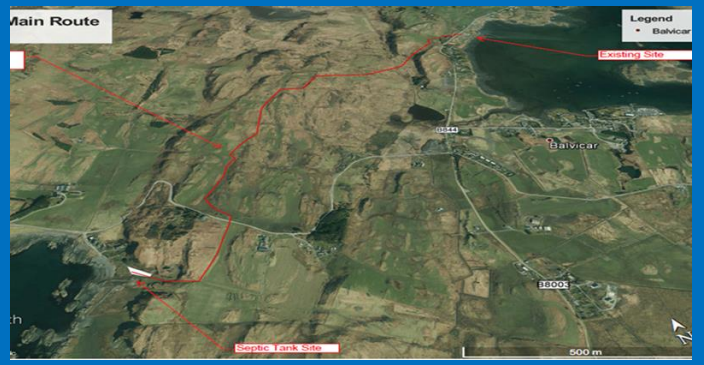
Proposed view looking east



What will it look like ?

Subject to detailed design

# Isle of Seil Options – Benefits, Carbon and Costs

| | 0e Retain Balvicar | 1a Hillside | 3a Easdale |
|---|---|---|---|
| |  |  |   |
| Impact from Pollution | **All discharges have received treatment** | Reduction in number of spills | Reduction in number of spills |
| Visual Ammenity | Existing site | Pumping station and treatment works partially visible | **Pumping station and treatment works in quarry** |
| Site Visits | Longer site visits, same frequency | **Less frequent but longer duration** | **Less frequent but longer duration** |
| Construction | **Limited to Balvicar and Seaview, less construction on site** | Lorry movements (soil movement), rock drilling, construction of pipelines | Lorry movements (soil movement), rock drilling, construction of pipelines |
| Environmental Impact | **Existing site** | Greenfield Site | Brownfield / Greenfield site |
| Whole Life Carbon (tonnes CO2eq) | **389** | 1,111 | 612 |
| Constructon Cost to complete | **£3.9m** | £9.1m * | £7.9m |
| Total Cost | **£7.7m** | £10.5m | £8.6m |

* This option is fully designed and ready for construction but includes an assessment of typical project development costs to allow like for like comparison with other projects which have a lower design maturity.

# Our recommendation – Option 0e – Balvicar upgrade

- Membrane Plant operating well
- UV technology better understood and applicable at this site
- All discharges will receive treatment
- Lowest Whole Life Cost
- Lowest whole life carbon
- Lowest community disruption

# Proposed Next Steps

Develop Option 0e, Retain Balvicar, add sidestream of filter and UV and build standalone septic tank at Seaview is preferred following a benefits and cost assessment.

Withdraw current planning application for Hillside option

Keep the community informed

Progress third party negotiations

# Discussion