RIFÓS HF.

Expansion of Rifós

October 2021

Content and Disclaimer

Disclaimer

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- The opinions and projections presented herein are based on general information gathered at the time of writing.
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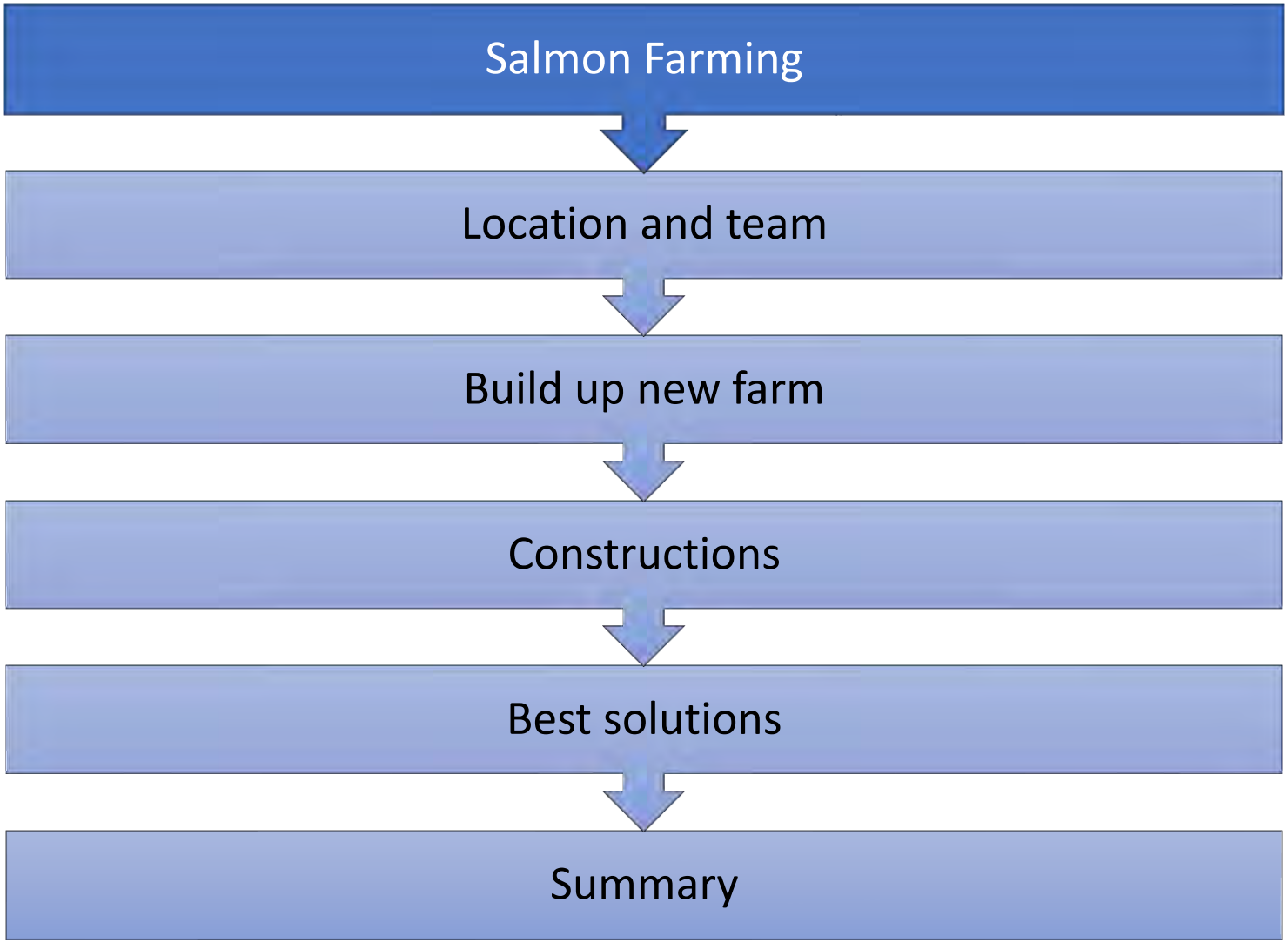
Winning GIGA formula

- 4 million big healthy high quality 400gr smolt.
- Use Icelandic natural hot water, 12-14 degrees after start feeding.
- Tested area.
- Short distance from tanks to well boat.
- Fast build up time 12 months.
- Shorten time in sea.
- Increase utility of licenses in sea by 20%

- Rifós is the most productive and biggest smolt station in ICELAND on phase 1.

- Phase 2 then we triple output of biomass.


Salmon Farming
Location and team
Build up new farm
Constructions
Best solutions
Summary

Salmon farming East Coast

- ICE

Salmon farming in Iceland

Location of hatcheries and current capacity

Smolt production in Iceland

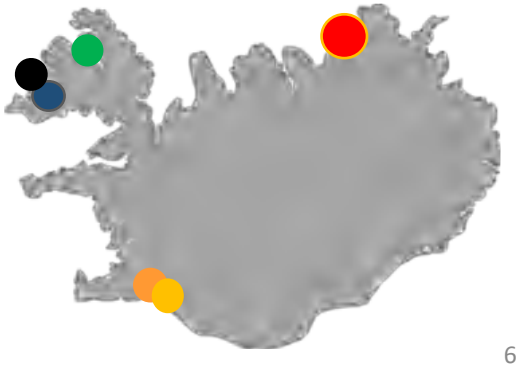
- Estimated for each 1th tons 250.000 smolt are needed.
- Total production currently in Iceland is around 14m smolts per year.
- Total smolt needed is 26m smolts for 106,5th tons production.
- Smolt need is therefore only 50% supplied by current smolt stations.

Hatcheries currently up and running in Iceland

- *Bæjarvík* ehf. in Talknafjordur which is owned by Arnarlax has a production capacity of 2 million smolts per year
- *Arctic Fish* has a hatchery in Talknafjordur with production capacity of 3,5 million smolts per year.
- *Háafell* ehf. in Isafjardardjup has a production capacity of 0,5 million smolt per year.
- *Laxar* ehf. owns hatchery at Ölfus and another at in Thorlakshofn. Est. production capacity is 2,4 million smolts per year.
- *Isthor* which is owned by Arnarlax, and Ice Fish Farm (50/50) has a production capacity of 5 million smolts per year.
- *Rifos* ehf. (Ice Fish Farm) current production capacity is 4 million 400gr.

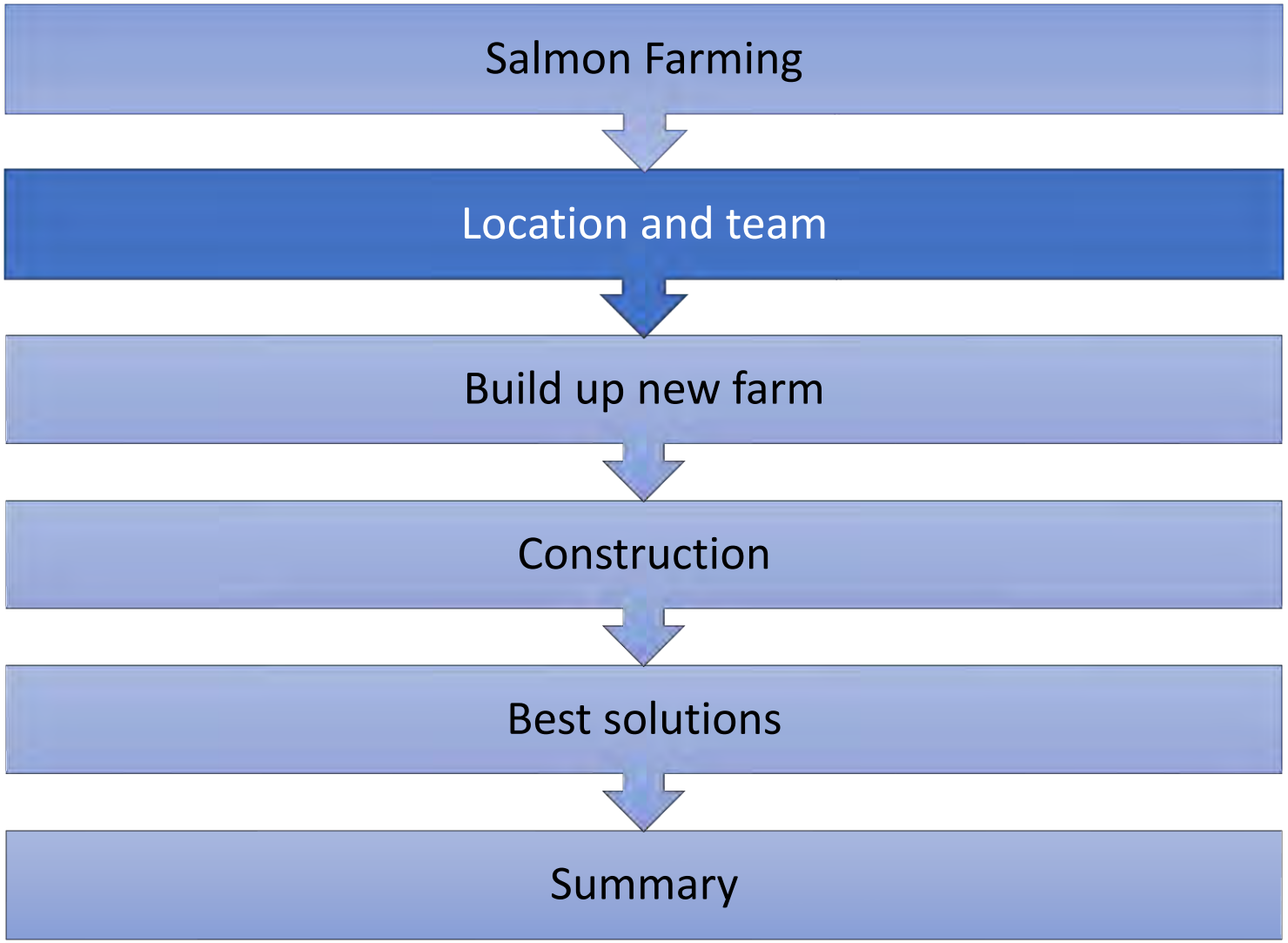
Landsvæði	Hámarkslífmassi samkvæmt Áhættumati erfðablöndunar (tonn)
Vestfirðir	
Patreksfjörður, Tálknafjörður og Patreksfjarðarflói	20.000
Arnarfjörður	20.000
Dýrafjörður	10.000
Önundarfjörður	2.500
Ísafjarðardjúp	12.000
Vestfirðir samtals:	64.500
Austfirðir	
Berufjörður	7.500
Stöðvarfjörður	0
Fáskrúðsfjörður	12.000
Reyðarfjörður	16.000
Seyðisfjörður	6.500
Austfirðir samtals:	42.000
Samtals:	106.500

Risk assessment from Hafró.
https://www.hafogvatn.is/is/midlun/frettir-og-tilkynningar/radgjof-um-endurskodun-ahaettumat-erfdablondunar-vegna-laxeldis-i-sjokvium



History

- Salmon farming started at Rifos location Lón in the year 1971. Norwegian investors (Mowis predecessors) had 50% of the shares in a company called ÍSNO.
- The operation was farming salmon in the lagoon.
- In 2012 Rifos started farming Arctic charr in the lagoon.
- In 2018 Ice Fish Farm acquires 70% of the shares and starts planning expansion of post smolt site in Kopasker.
- The year 2020 was the most eventful year in Rifos history when constructions of 4 buildings started in Rifos and Kopasker.
- Today Rifós employs 21 people.


Salmon Farming
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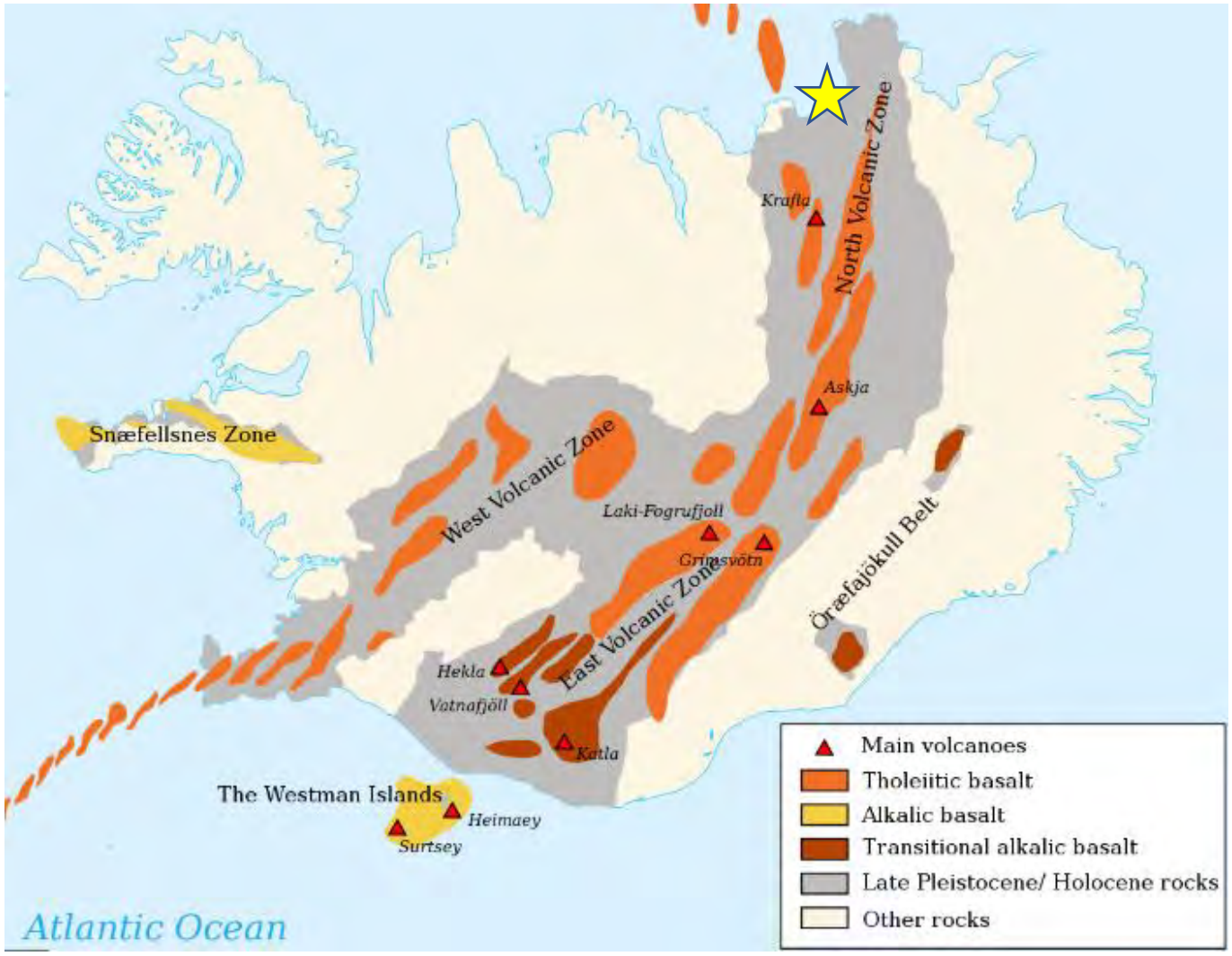
Location is everything.



Right Area

- The Mid-Atlantic Ridge (MAR) is a mid-ocean ridge, a divergent or constructive plate boundary located along the floor of the Atlantic Ocean, and part of the longest mountain range in the world.
- In the area of north of Iceland where Rifos and Kópasker is located there is plenty of warm fresh water and warm sea water in the ground.
- In this area Samherji has been operating land-based salmon farming for 25 years with great result. Stable water supply and good quality of the water. Producing now 1.500 tons of 5kg salmon.
- Only 50 km away from Rifós is the newest thermo powerplant Þeistareykir, producing 90 MW of power per year.
- In the area we have experienced fish farmers.

The Company - Rifós

Rifós/Kópasker team

Successful team

- Jónatan Þórðarson Chairman of the Board
  - Experience: Long experience in salmon farming over 30 years.
  - Education: Salmon farming from Bergen.
  - Role: General mastermind of the project and development.

- Guðmundur Þórarinsson member of the Board
  - Experience: Started in salmon farming in 2012
  - Education: MBA and Masters in Business.
  - Role: Finance and planning.

- Fannar Helgi Þorvaldsson member of the Board and administration of Rifós.
  - Experience: Worked in farming over 30 years.
  - Education: Fish farming engineer.
  - Role: Day to day operations manager.

- Valur Traustason, Project Manager
  - Education: BS in Fisheries Science
  - Experience: 5 years fish farming (3 years salmon farming and 2 years halibut farming)
  - Role: Project leader and day to day operations.

- Kjartan Lindbol
  - Education: Fish farming engineer
  - Experience:: More than 10 year experience with sea cage farming.
  - Role: Support.

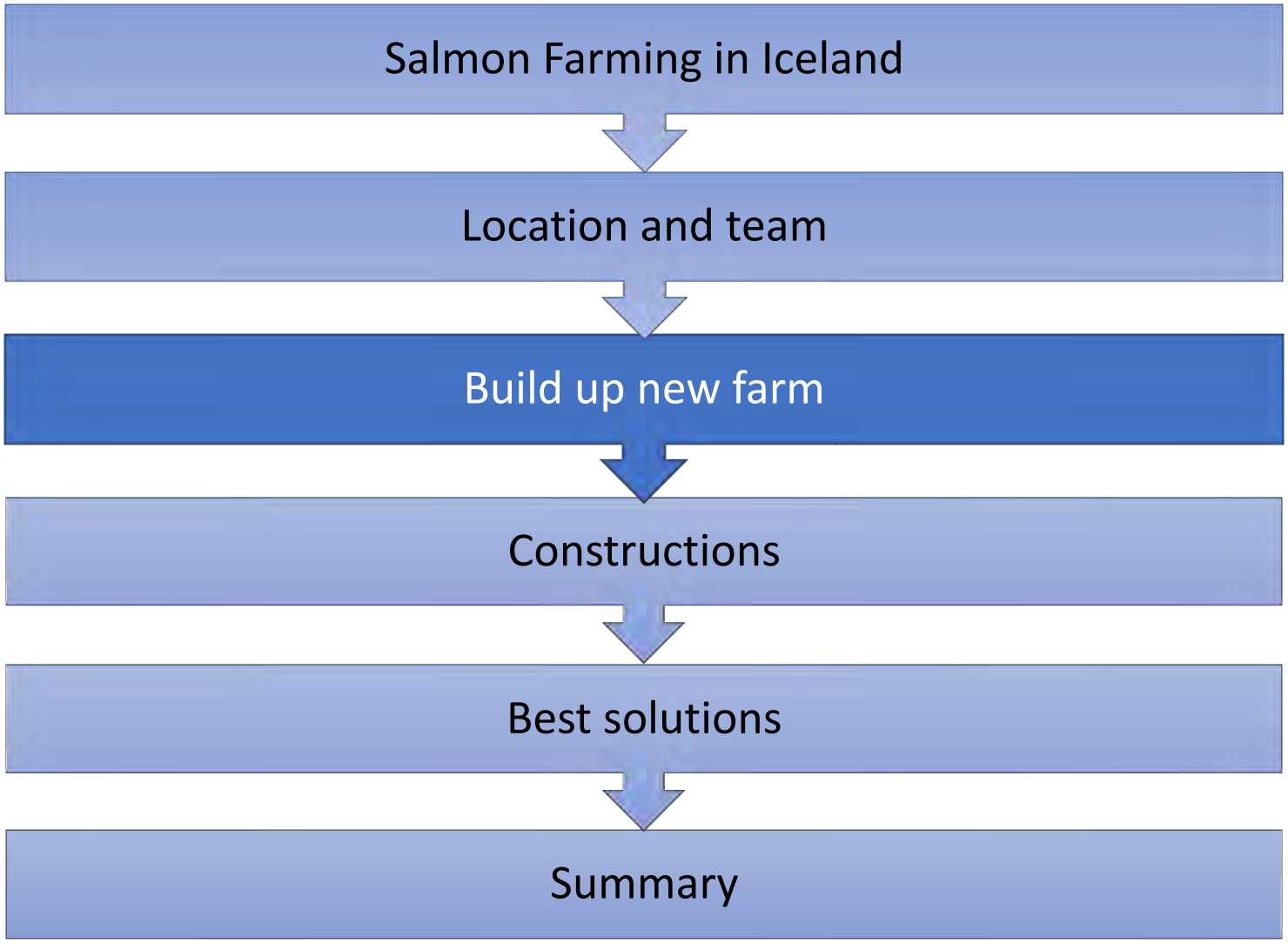
- Ólöf Stefánsdóttir
  - Education: University of Bifröst
  - Experience: More than 5 years experience in fish related industries
  - Role: Quality control,

- Very strong team on all fields.
- Quality standard Aquagap is essential for good smolt.
- We are using IT system from Fishtalk Akvagroup.
- Ice Fish Farm uses EQS (Extend quality system) with great success in producing high quality salmon.

We have an issue.
Ok what can we do.
We can try this, ok.
It is done and worked!

Ultra premium salmon

- Premium Salmon
- Whole Foods
- Organic
- Steril
- AquaGap


Salmon Farming in Iceland
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Rifós ground plan.

Kópasker

Aerial photo of the land based farm .

Comment

B. Station house

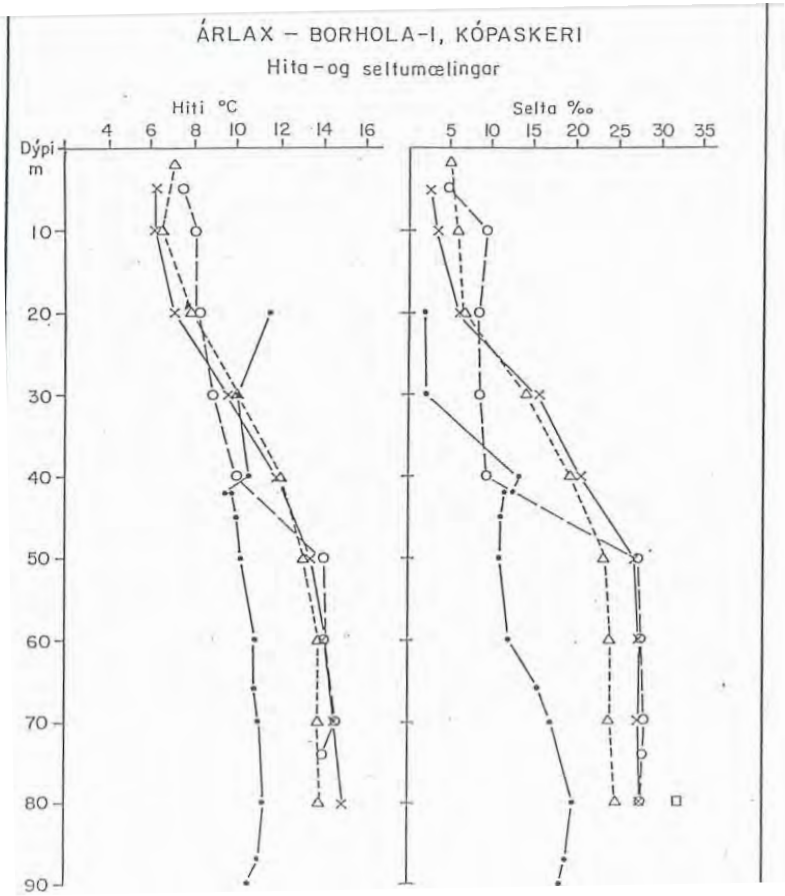
- For employees.
- Backup generators, oxygen production.
- Controlling

- A. Tank houses
  - 2.700 square meter house.
  - 8 * 1000 m^3 tanks
  - Including all water system, dead fish collection feeding system.

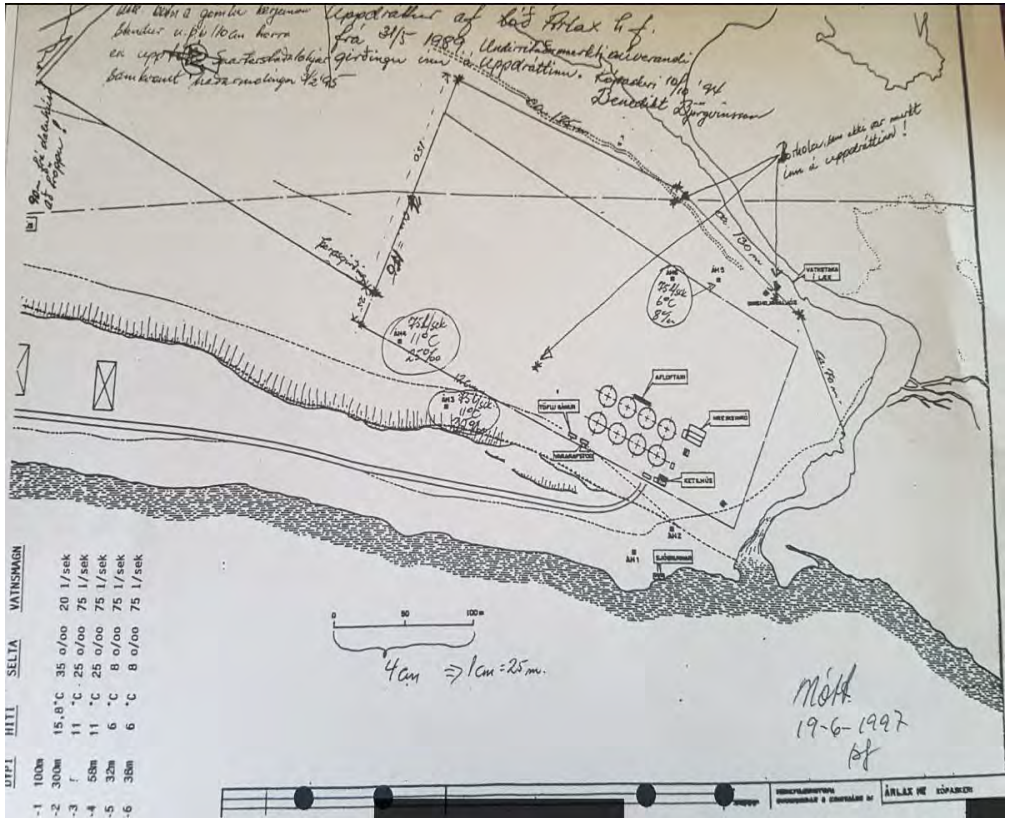
The total size of the lot is 34.375 $m^{2.}$

Kópasker boreholes and old station. Prior farm operated boreholes for several years

Winning formula: Borhole log



Existing boreholes




Handy Salinity
35.1 PPT
41.6 mS/cm 13.6 °C
Esc
OK
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OxyGuard
Handy Polaris
91.4 % SAT
7.74 mg/L 14.4 °C
Esc
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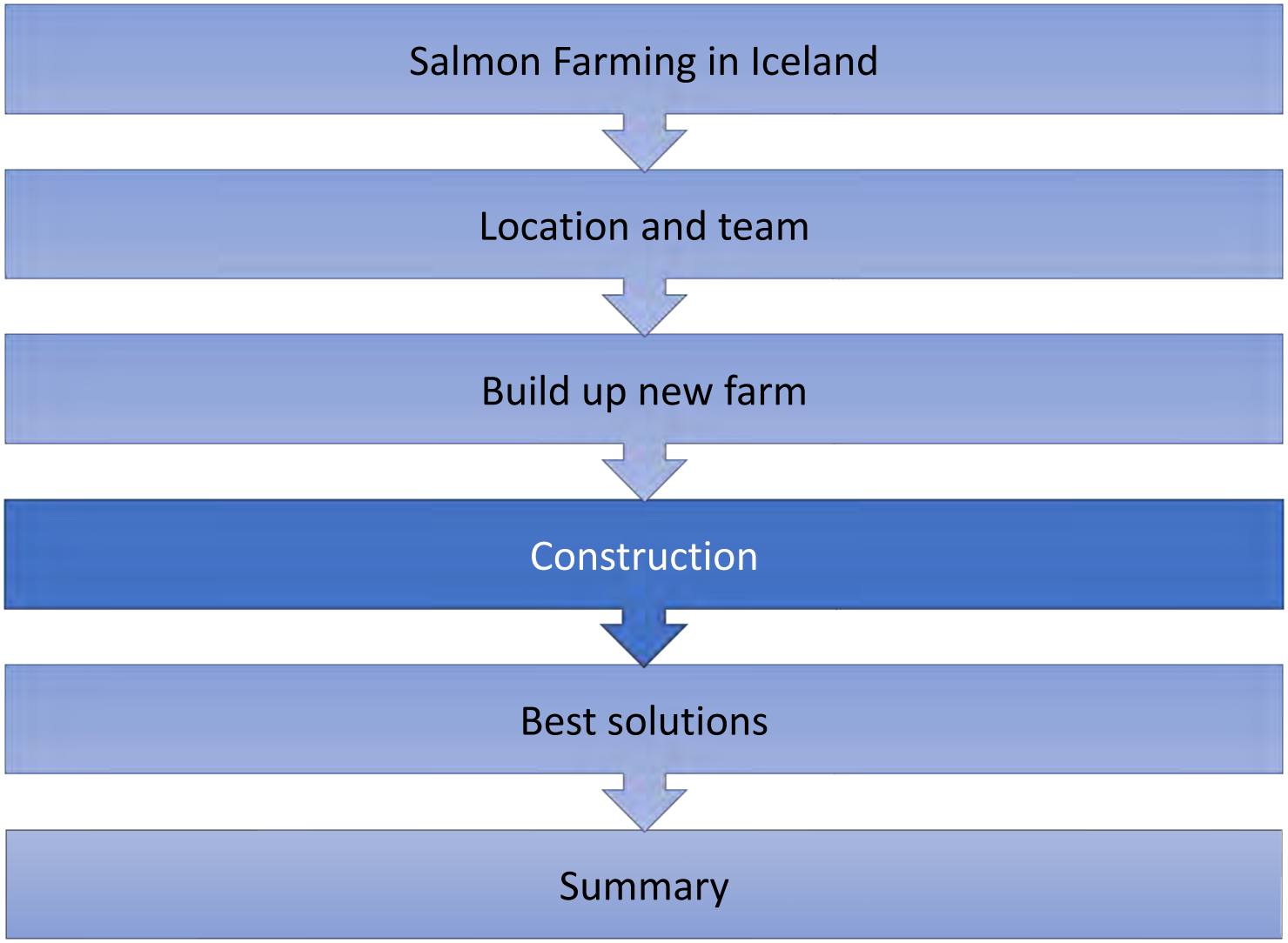
www.oxyguard.dk
OxyGuard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- In March constructions started for a new building and two new tanks for grow out section
  - 1800m2 building
  - 6 tanks – Total capacity 2700m3
- In October construction started in Kopasker for post smolt site and a service house.
  - 2400m2 building and 300m2 service house.
  - 8 tanks – Total capacity 8000m3
- In November construction started in Rifos for new hatchery and startfeeding hall in Rifos.
  - 750m2 building
  - 8 tanks – Total capacity 504m3

Rifós – fresh water station

Kópasker – Post smolt station

Construtions

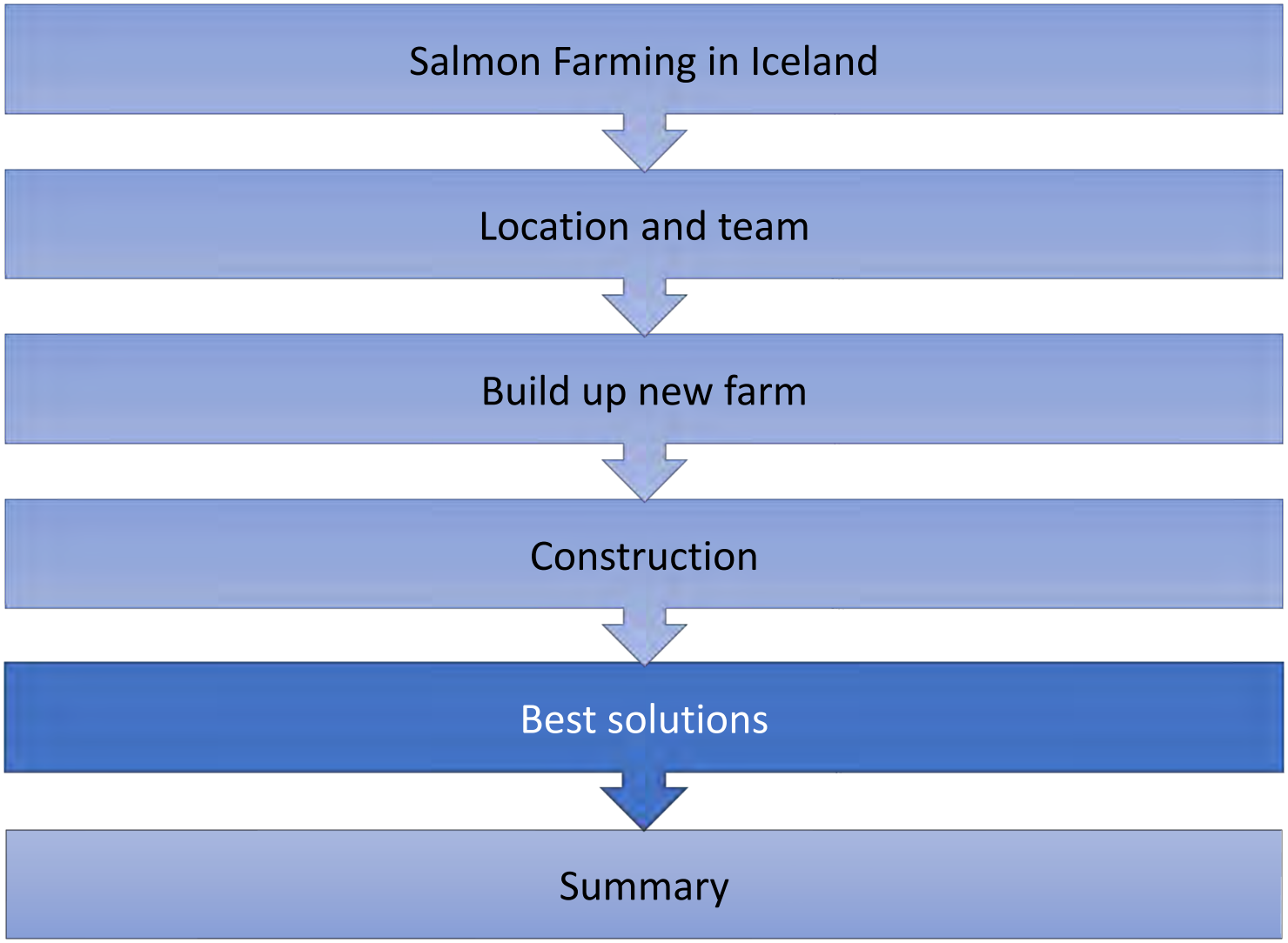
Constructions

Rifós new built start feeding and nursery

Kópasker station 8000 cubic tank capacity

Important factor is having house over the tanks.

- better growth
- less stress
- better for equipment and working conditions
- better control of health before transport
- less risk of getting external issues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There is plenty of hot water in Rifós

- At Rifos there is a well with 40 degrees hot water of 40l per sek.

- We use this water to heat up 8-9 degrees water to bring temp in station up to 13 degrees.

Cristal clear water

- Startfeeding tanks from AKVA Group
- AQS feeding system for startfeeding and grow out facilities
- Tank lights from Scale in all new facilities.
- Smart flow grading and counting from Vaki
- Degassers from NP

Oxygen production

UV lights on all water for our salmon

Aerations and degassing

- 70% of water is recycled
- Drum filter and degassing capacity per tank is 250l.

Cooling unit

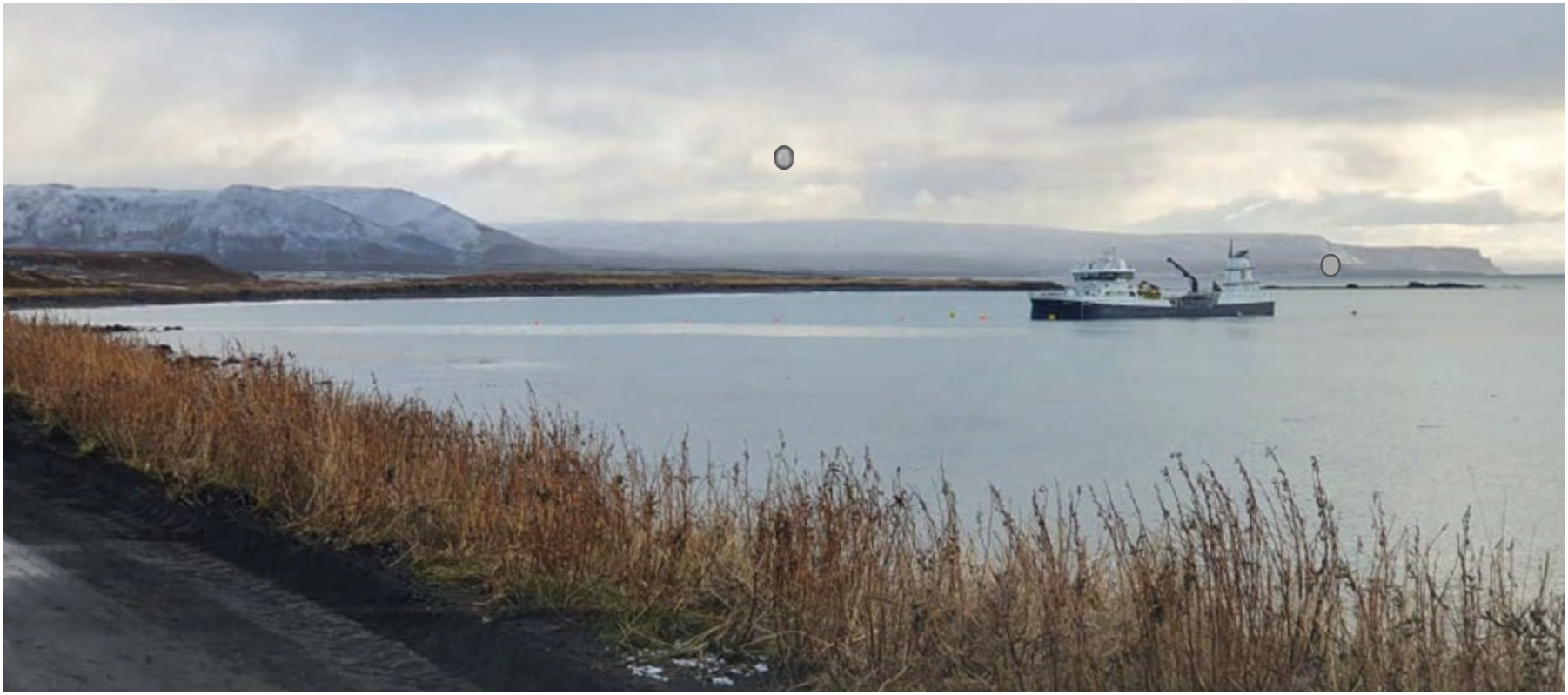
- Before delivery we cool the tanks for 7-14 days down to current ocean temperature.
  - For example now sea is 6,5 degrees then we cool the tank down to 6,5 degrees.
- This makes the smolt window longer from April to December
  - 8 months
  - Normally in Iceland 4-5 months
- Manage to utilize station better and licenses in sea and lower risk for operations.

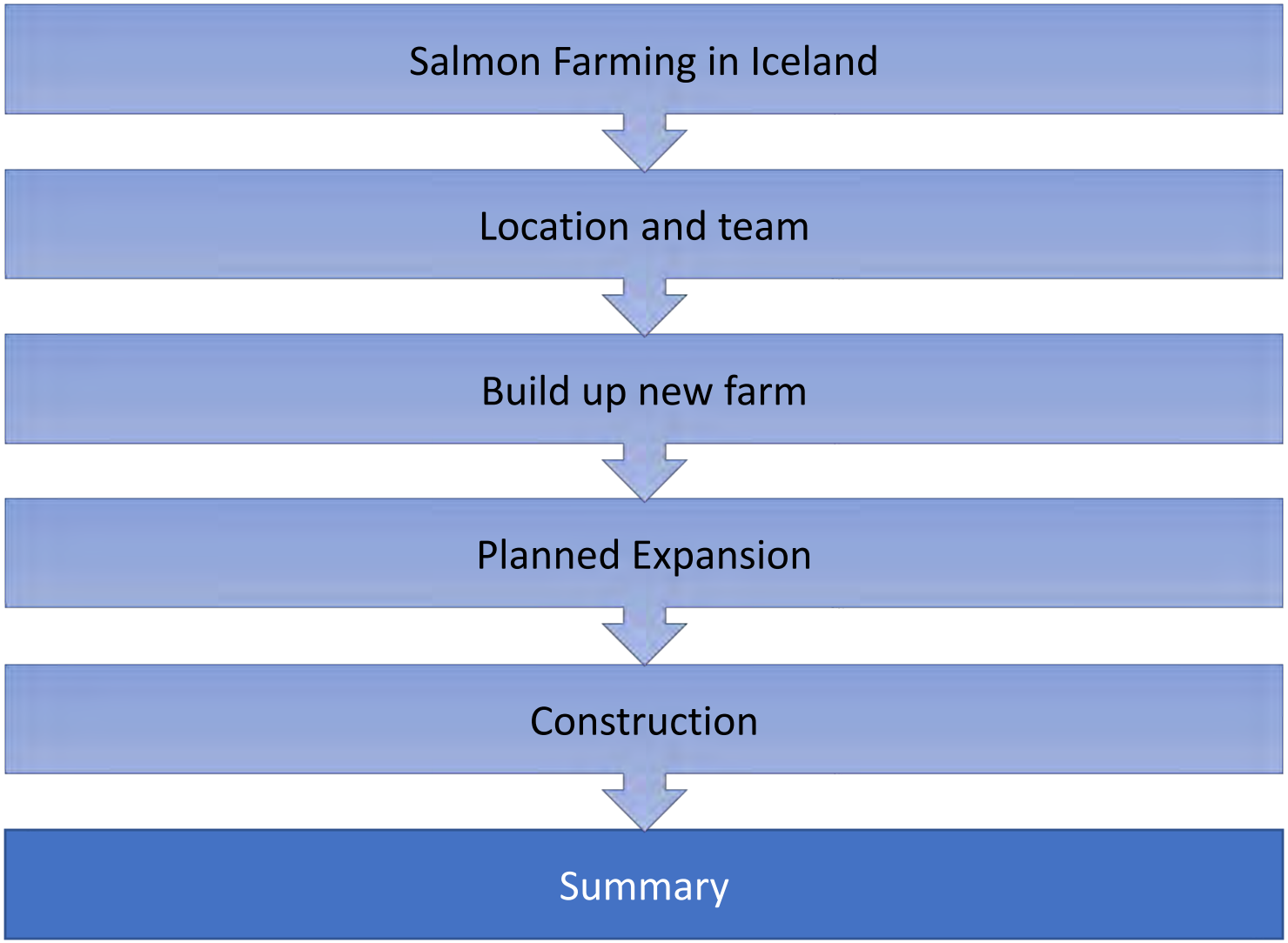
Waste water treatment

- All waste water is treated before releasing to the sea.

Short pumping to well boat

- 400 meters from Tank to well boat
- 2 and half hour to empty the tank to the well boat.

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400gr smolt in 12 months becomes 6 kg

Questions