



Environmental Impact Assessment (EIA)

Temporary Concrete Batching Plant:

Hyper Scale project Fyresdal

1. Executive Summary

This Environmental Impact Assessment (EIA) evaluates the environmental effects associated with the **establishment, operation, and decommissioning of a temporary concrete batching plant** intended solely to supply ready-mixed concrete to **the Hyper Scale construction project**. The purpose of the assessment is to identify potential environmental impacts, assess their significance, and define appropriate mitigation measures. The assessment concludes that the proposed temporary batching plant will result in **limited and predominantly temporary environmental impacts**, and that these impacts can be effectively managed through standard industry practices and the mitigation measures described in this report. The project is expected to generate **positive environmental effects**, primarily through reduced transport distances, lower traffic volumes, and reduced CO₂ emissions compared to sourcing concrete from a distant permanent plant.

2. Description of the Proposed Development

The proposed development involves the installation and operation of a **temporary, project-dedicated concrete batching plant** located in close proximity to the construction site. The batching plant will:

- Produce ready-mixed concrete exclusively for the associated project
- Operate for a limited duration corresponding to the construction phase
- Be fully dismantled and removed upon project completion
- Require no permanent foundations or long-term land use change

Main Components

- Cement silos
- Aggregate storage bays
- Admixtures storage containers
- Batch mixer and control unit

- Internal recirculation and wash-out container
 - Temporary utility connections (electricity and water)
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3. Purpose and Need

The purpose of establishing a temporary batching plant is to:

- Ensure reliable and timely concrete supply
- Improve quality control during concreting works
- Reduce transport distances for ready-mixed concrete
- Lower greenhouse gas emissions and traffic impacts
- Minimize disruption to the local road network

The need for the plant is directly linked to the scale, scheduling requirements, and concrete volumes associated with the specific project.

4. Consideration of Alternatives

4.1 Zero Alternative (No Batching Plant)

Concrete would be supplied from an existing permanent plant, resulting in:

- Increased truck traffic
- Higher transport-related emissions
- Greater dependency on regional logistics
- Increased risk of delays during peak demand

4.2 Proposed Alternative (Preferred Option)

A temporary batching plant near the site results in:

- Significantly reduced transport distances
- CO₂ emissions from transport reduced by 97%
- Reduced traffic load on public roads
- Improved logistical efficiency

The proposed alternative is considered environmentally and operationally preferable.

5. Existing Environmental Conditions (Baseline)

The site is characterized by:

- Current stock area
- Limited or no sensitive ecological features
- Existing background noise associated with construction
- Absence of known protected species or habitats within the site footprint

The proposed location has been selected to avoid environmental impact.

6. Assessment of Environmental Impacts

Note on Environmental impact- and risk assessments. In accordance with our ISO14001 and 45001 certification we are subject to external auditing regarding many of the subjects in the following sub-chapters, as well as internal audits. A risk assessment regarding all aspects of the work environment such as noise, vibration, dust etc. are plant specific and will be prepared in time for production to start. The same is for the environmental impacts and risks. All will be addressed in the risk assessment, which is subject to early revision.

Furthermore, an environmental impact study ("Miljøkartlegging") is a requirement before production starts and is to be revised every five years.

From 01.01.26 there were new legislation requirements regarding emission of water from concrete production. Due to their new requirements, we will establish a closed loop water treatment system. By doing this we will not have the need for emitting production water. This water will be used for washing the inside of drums on concrete trucks or recycled into production of new concrete.

6.1 Noise and Vibration

The noise sources are production activities, wheel loader handling of materials, and truck traffic.

Normal concrete production is generally below the limits for industrial noise throughout the day. Industrial noise limits are 55 dB Lden from 07:00–19:00 and 50 dB Lden in the evening. Temporary construction noise limits are 60 dB Lden.

Note with data from a similar mixing plant shows a calculated noise level of 40Db Lden. Attached.

Referring to the attached note where the noise is calculated based on the requirements for industrial noise, T-1442/2021. The requirements for noise from construction site are 10db higher. However, the calculations show that we are below the Lden for industrial noise all day. Based on the current calculations in the note and the authorities' guidelines, T-1442/2021, no special noise measures are necessary. If necessary, a noise measurement can be carried out after production starts.

Vibration, no known.

Impact:

- Temporary and moderate during working hours, not continuously.
- Lower than comparable standard Industrial noise

Significance: Low

6.2 Air Quality and Dust

Potential dust emissions may arise from:

- Aggregate handling
- Cement material transfer
- Truck movements

Impact:

- Localized and controllable
- Short-term only

Significance: Low

6.3 Traffic and Transport

The batching plant will:

- Reduce the number of concrete delivery trucks on public roads
- Concentrate movements within the project area

Impact:

- Reduced external traffic volumes

- Improved road safety

Significance: Positive

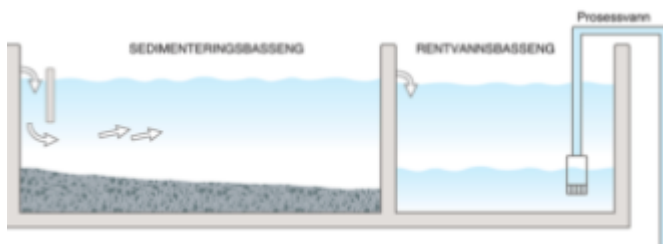
6.4 Water and Soil

Risks relate to wash water from the plant and the trucks.

Wash water from the plant and the trucks is handled in a closed system consisting of the following:

- Container 1, for discharge of wash water from plant and truck.
- Container 2, storage tank for recycled water, 25 m³
- Pump system between tanks and to the plant for reuse of the water in production.
- Keep the number of cars used as low as possible => less washing.

Illustration:



By using a closed system for water treatment, there will be no need for an oil/water-separator for the water treatment system.

Impact:

- No discharge of wash water to surface or groundwater
- Wash water will be recycled
- Leftover concrete will be recycled or cast into blocks

Significance: Very low

Infiltration and runoff water:

Management of the site will be specified from CTS.

6.5 Climate Impact, EPD and CO₂ Accounting

The environmental performance of the concrete supplied from the temporary batching plant is documented using **Environmental Product Declarations (EPDs)** for relevant concrete mixes.

The EPDs are **third-party verified** and prepared in accordance with **EN 15804**, ensuring transparent and comparable documentation of environmental impacts.

A **project-specific CO₂ inventory** is established, covering:

- Raw material production (cement, aggregates, admixtures)
- Energy consumption at the batching plant
- Transport of raw materials to the batching plant
- Transport of ready-mixed concrete to the construction site

The local batching plant significantly reduces transport distances compared to deliveries from a permanent external plant. This results in a measurable reduction in transport-related greenhouse gas emissions. Where **low-carbon or carbon-neutral concrete mixes** are used, emissions are further reduced.

The EPDs and CO₂ calculations provide verifiable input for:

- Project environmental documentation
- Sustainability reporting
- Assessment of compliance with climate targets

Reduction figures:

- Local production reduces transport, Co2 emissions by 97%
- Optional evoZero cement reduces Co2 emissions from concrete by 75%

7. Batching plant.

The batching plant will be certified according to NS EN 206 by the Norwegian Concrete Products Control Board.

They address the following:

- Production equipment, technical standards.
- Dust emissions, noise, water.

- Production of concrete

The factory will be certified upon commission and receive its certificate.

Certificate for Heidelberg Materials Betong Norge AS system is attached 4.

Class A: Factory-mixed concrete

NS-EN 206:2013+A2:2021+NA:2022

8. Mitigation Measures

The following measures will be implemented:

- Operating hours are limited to working hours on the project.
 - Dust suppression through watering and covered conveyors
 - Enclosed cement handling systems
 - Closed wash-water collection and reuse
 - Routine maintenance and good housekeeping
 - Spill prevention and emergency response procedures
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9. Residual Impacts

After mitigation, residual impacts are assessed as:

- **Minor**
- **Temporary**
- **Reversible**

No long-term environmental effects are anticipated.

10. Monitoring and Decommissioning

- Environmental compliance will be monitored throughout operation
 - Facility will be dismantled immediately after completion of concrete deliveries
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11. Conclusion

The establishment of a **temporary concrete batching plant for supply to a single project** is assessed to have **acceptable environmental impacts**. The project provides clear environmental benefits through reduced transportation, lower CO₂ emissions, and improved logistical efficiency.

Subject to implementation of the mitigation measures, the project is considered suitable for approval from an environmental and planning perspective.

12. Attachment

1. Drawing of the batching plant.
2. Noise calculation from the equivalent mixing plant
3. Production Certificate for Heidelberg materials Betong Norge AS central.
4. Certificate NS-EN ISO 14001:2025 Environmental management system.
5. Certificate NS-EN ISO 45001:2023 Occupational health and safety management systems