Project Purpose: The proposed project will repair aggregate bins and pave the gravel drive, resulting in 1.4 acres of total impervious cover on a 1.6 acres site. The project will reconstruct 0.25 acres associated with the aggregate bins and pave 0.78 acres of gravel drive.

Project Location: 1621 11th Avenue SE, Forest Lake. The site drains to Comfort Lake and Mud Lake (within RCWD).

Applicable District Rules: 2.0, 3.0 & 11.0

Recommendation: Approval pending the following conditions:

1. Approval by the CLFLWD Board of Managers of Variance Request from District Rate Control Requirements.

Prior to permit issuance, the following are required:

2. Execution and recording of a maintenance instrument satisfactory to the CLFLWD [and potentially RCWD] addressing the ongoing operation and maintenance of the proposed stormwater management features including the grassed swales, onsite sediment management practices, and sweeping program. Draft instrument should be reviewed by District attorney prior to execution. The District may require instrument to be to joint benefit of Rice Creek Watershed District.

3. Financial Assurance in the amount of $5,000.
4. Stormwater Impact fee in an amount of $85,786.

Stipulations of Permit:

5. Submittal of as-built survey.
Rule 2.0: Stormwater Management

The proposed project includes replacement of existing aggregate bins and paving of an existing gravel drive. The existing buildings will be left unchanged. The project will reconstruct 1.03 acres of existing impervious which is equivalent to 64% of the site; therefore stormwater treatment is required for the entire site. The northern 15% of the site drains to Comfort Lake via the Sunrise River and is located in CLFLWD. The southern 85% drains to Mud Lake located in RCWD (see District Boundary and RCWD Rules discussion below).

The applicant has submitted a variance request from District stormwater requirements. The project proposes to pay into the stormwater impact fund for volume control and the conversion from a dirt/gravel drive to a paved drive combined with grassed swales and sweeping will satisfy District water quality requirements. The project as presented meets District volume and water quality requirements, but does not meet District rate control. Therefore the variance request applies to District rate control requirements.

Volume Control
Geotechnical borings have been submitted indicating that the underlying soils are clay and not suitable for infiltration. Historically the District has allowed for biofiltration of the 2-year event to satisfy the volume control standard when infiltration is not feasible because biofiltration provides evapotranspiration and thereby provides some level of volume control and water quality treatment. Biofiltration of the 2-year event would only be achievable with a significant reduction in impervious area. The applicant has indicated that the site is constrained for the current ready mix operations and further reduction in impervious area would hinder their options. Knife River does not own other property in the District where offsite volume mitigation could be provided and there are currently no volume credits available for purchase. Knife River has proposed to pay into the District’s Stormwater Impact fund based on the required volume reduction. The volume reduction required is 7,782 cubic feet which results in a stormwater impact fund fee of $85,786.

Due to the conversion from gravel to pavement there is expected to be a very small increase in volumes from the site. Both outlet locations have downstream conveyance and are not expected to be sensitive to minor volume increases.

Water Quality
The applicant has submitted regularly cited literature values from Pitt and McLean (1986) indicating that for an industrial site conversion from a dirt and gravel parking lot to a paved surface, total suspended solids and the associated phosphorus loading will be significantly reduced. The applicant has also indicated that regular sweeping will be performed on the proposed paved surfaces. Runoff from the first flush is proposed to be captured by small swales on the north and south ends of the property. It is estimated that pre-project phosphorus loading is approximately 4.9 pounds of phosphorus per year and post construction loading will, with rigorous sweeping and maintenance of the swales, be approximately 1.5 pounds of phosphorus per year. This satisfies the District requirement of phosphorus reduction of at least 50% for the site. An operation and maintenance plan including rigorous sweeping and inspection and maintenance of the onsite swales is required.

Rate Control
The District Rules require rates to be reduced to predevelopment rates. Large storage areas capable of capturing the 100-year event and then allowing for reduced flow would be required to meet the standard. The applicant has requested a variance due to the site limitations. Underground storage
was explored as well, however due to the downstream elevations; incorporation of underground storage on the northern drainage area is not feasible because downstream elevations would not allow for a discharge pipe to be day-lighted at a low enough elevation. On the south end there is a similar challenge with outlet elevations, however it appears possible to do a very shallow underground retention system spread out over a very large footprint connecting into shallow catch basins on the southern end of the property.

CLFLWD is currently reviewing its rules and one of the recommendations based on feedback at the TAC meetings and Board Workshop is that for redeveloping sites, rates be held to existing conditions rather than pre-development conditions.

The combination of the reduced impervious area and the proposed swales does result in a small decrease in rates leaving the site; therefore there would be no downstream adverse impacts to rates or flood levels. However, the site does not meet predevelopment rates; therefore a variance from the rate control requirements would be required. A summary of the rates is provided in the table below:

<table>
<thead>
<tr>
<th></th>
<th>2-YEAR (CFS)</th>
<th>10-YEAR (CFS)</th>
<th>100-YEAR (CFS)</th>
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<td>PREDEVELOPMENT</td>
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<td>EXISTING</td>
<td>5.3</td>
<td>8.2</td>
<td>14.3</td>
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<tr>
<td>PROPOSED</td>
<td>5.0</td>
<td>7.6</td>
<td>13.2</td>
</tr>
</tbody>
</table>

**District Boundary and RCWD Rules**
This site is currently located in CLFLWD; however, the majority of the site drains to RCWD and would be transferred to RCWD upon completion of the pending District Boundary Revision. RCWD rules have been reviewed to determine stormwater requirements for the site if it were permitted through RCWD. Based on the understanding that the underlying native soils would not be exposed, RCWD stormwater rules would not be triggered and there would be no stormwater requirements for the site if permitted by RCWD. This was confirmed by RCWD staff via a phone call on April 20th, 2017. Based on this understanding of the project, RCWD staff indicated they would not submit any formal comments on the project. Should the variance request be granted, it is recommended the District legal counsel work with RCWD to determine if RCWD wants to be party to the maintenance instrument for the on-site swales and sweeping program.

**Board Consideration of Variance Request**
Per the District Rules in order to grant a variance, the Board of Managers shall determine that:

- the special conditions which apply to the structure or land in question do not apply generally to other land or structures in the District,
- the granting of such variance will not merely serve as a convenience to the applicant,
- the variance will not impair or be contrary to the intent of the rules.
A copy of the submitted variance request is attached at the end of this report for the Board's review and consideration.

**Rule 3.0: Erosion Control**

A detailed erosion control plan has been submitted including perimeter silt fence, inlet protection, revegetation specifications and an implementation schedules. The proposed plans meet District erosion control requirements. The applicant has submitted a copy of the NPDES/SDS General Permit that was submitted and issued for the site in 2013; however based on the letter submitted this permit was set to expire October 31, 2016. Knife River has indicated that they have applied for reissuance of this permit and are currently in the public comment period. During this time they are allowed to continue operating under their existing permit.

**Rule 4.0: Lake, Stream, and Wetland Buffer Requirements**

The proposed project does not trigger this rule; subdivision is not proposed and no municipal rezoning or variance is required for this project.

**Rule 5.0: Shoreline and Streambank Alterations**

The proposed project does not trigger this rule; a DNR general permit applicable to property owners who hold a District permit is not in effect.

**Rule 6.0: Watercourse and Basin Crossings**

The proposed project does not trigger this rule; no roadways, utilities, or water control structures are proposed in the bed of District waterbodies.

**Rule 7.0: Floodplain and Drainage Alterations**

The proposed project does not trigger this rule; the City of Forest Lake has a state-approved floodplain ordinance.

**Rule 8.0: Wetland Management**

The proposed project does not trigger this rule; the District is not the LGU for wetland impacts.

**Rule 9.0: Fees**

The fees required for the proposed project are the $10 application fee and $4,250 for the permit review and inspection deposit.

**Rule 10.0: Financial Assurances**

The financial assurance required for the proposed project is $5,000.

**Rule 11.0: Variances**

The project requests a variance for stormwater management requirements. See discussion under Rule 2.0.
**Submittals Received**

The following submittals were received and reviewed as the basis for this permit application review:

3. Permit review and inspection deposit of $4,250, received March 29, 2017.
5. NPDES/SDS General Permit, received March 29, 2017, prepared September 17, 2013, prepared by MPCA.
8. Response to 4-12-17 Engineer’s Report, prepared April 17, 2017, received April 17, 2017.
10. Public Notice of intent to reissue NPDES/SDS General Permit coverage, prepare April 3, 2017, received April 17, 2017, prepared by MPCA.
Request for Variance and Statement of Hardship

The Board of Managers may hear requests for variances from the literal provisions of these rules in instances where their strict enforcement would cause undue hardship because of circumstances unique to the property under consideration. The Board of Managers may grant variances where it is demonstrated that such action will be keeping with the spirit and intent of these rules. An applicant granted a variance from full compliance with a requirement of the rules would be required to meet the requirement to the degree feasible short of full compliance.

In order to grant a variance, the Board of Managers shall determine that:

- the special conditions which apply to the structure or land in question do not apply generally to other land or structures in the District
- the granting of such variance will not merely serve as a convenience to the applicant,
- the variance will not impair or be contrary to the intent of these rules.

A hardship cannot be created by the landowner, the landowner’s agent or representative, or a contractor, and must be unique to the property. Economic hardships are not grounds for issuing a variance.

A variance shall become void one year after it is granted if not used.

A violation of any condition set forth in a variance shall be a violation of the District rules and shall automatically terminate the variance.

<table>
<thead>
<tr>
<th>Date</th>
<th>Permit #</th>
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<tbody>
<tr>
<td>Applicant: Knife River North Central-Forest Lake Ready Mix</td>
<td></td>
</tr>
<tr>
<td>Address: 1621 11th Avenue SE, Forest Lake, MN 55025</td>
<td></td>
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<tr>
<td>Telephone number: 320-529-2725</td>
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<tr>
<td>Property ID number: 07.032.21.43.0014</td>
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<td>CLFLWD Rule (circle applicable rule(s)):</td>
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</table>
  - 2.0 (Stormwater Management)
  - 3.0 (Erosion Control)
  - 4.0 (Lake, Stream, and Wetland Buffers)
  - 5.0 (Shoreland & Streambank Alterations)
  - 6.0 (Watercourse and Basin Crossing)
  - 7.0 Floodplain and Drainage Alterations).
Description of project:
Knife River desires to repair and upgrade its Forest Lake Ready Mix Plant located at 1621 11th Avenue SW in the City of Forest Lake. The entire parcel covers 71,909 square feet (1.65 acres). The repairs and upgrades include:

Aggregate bin replacement
- Presently the bins containing ready mix aggregates are comprised of stacked octagonal concrete blocks. These blocks, which take up much needed space and allow for material spillage through the walls, will be removed and replaced with concrete T-panels. The floors of the aggregate bins are concrete in various states of disrepair. These floors will be repaired or replaced as needed. (0.25 acres disturbed)

Yard paving
- The driveway passing through the center of the site is currently covered with class 5 gravel. This driveway will be graded and paved with asphalt to reduce mud tracking off site and stormwater runoff quality. A dedicated power broom will be utilized to remove spilled aggregate material reducing stormwater exposure to significant materials. (0.78 acres disturbed)

These two actions combined will disturb a total of 1.03 acres of existing impervious surface which is equivalent to 64% of the site, requiring a stormwater management permit according to part 2.0 of District Rules.

Requirements of rule(s):
Maintain peak stormwater flow rate from each point of discharge from the site for a 24-hour precipitation event with a return frequency of 2, 10, or 100 years in the drainage area in which the site is located at or below the peak stormwater flow rate calculated in accordance with subsection 2.5.4.

Maintain stormwater flow volume from each point of discharge from the site for a 24-hour precipitation event with a return frequency of 2 years, at or below the pre-development stormwater flow volume, calculated in accordance with subsection 2.5.4.

Decrease phosphorus loading by fifty (50) percent from existing conditions for developed sites and not increase phosphorus loading from existing on all other sites.

Requested Variance:
A variance from Rule 2 is requested. Calculations performed show the required stormwater basins would occupy 25% of the site, rendering the site useless for a ready mix concrete plant.

Statement of Hardship (include any mitigating circumstances):
This site has served as a ready mix concrete plant since 1988. Over these past years minor repairs to the site were made as needed. Now, it has come to a point where the above described upgrades are necessary to continue to efficiently utilize this site. The above items demonstrate that in order to improve the operation of the site and reduce environmental impacts, a variance is needed.
How do you propose to meet the requirements of the applicable CLFLWD rules?

To mitigate the fact that stormwater management devices are not feasible on the limited area available, Knife River will institute a robust sweeping program. Currently the surfaces at the site are primarily graveled. With paved surfaces sweeping will drastically reduce the volume of sediment that must be treated in order to meet MPCA intervention limits. A power broom is part of the overall site improvement project and will be utilized to keep the site free of sediment that can run off.

Applicant name: Ron Klinker  Date: March 29, 2017

Applicant signature: Ron Klinker

Staff Recommendation (For staff use only) Approve