PG-120452

CASCADE NATURAL GAS CORPORATION
A Subsidiary of MDU Resources Group, Inc.

8113 WEST GRANDRIDGE BOULEVARD, KENNEWICK, WASHINGTON 99336-7166

March 30, 2012

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UTC
Pipeline Safety Program

David Lykken
Director, Pipeline Safety
Utilities & Transportation Commission
1300 S. Evergreen Park Dr. S.W
PO Box 47250
Olympia, WA 98504-7250

Subject: WAC 480-93-020 – Request for Approval – 6" Mount Vernon HP Line Uprate

Dear Mr. Lykken:

Pursuant to the requirements of WAC 480-93-020 Proximity Considerations, Cascade Natural Gas Corporation (CNGC) requests approval to operate an existing six inch gas pipeline and a proposed regulator station at a Maximum Allowable Operating Pressure (MAOP) of 400 psig within 100 feet of existing structures intended for human occupancy.

Proposed Scope of Work:

In order to serve the growing communities in and around the City of Mount Vernon, Cascade is required to increase the operating pressure on the six inch Mount Vernon High Pressure Line from an MAOP of 250 psig to an MAOP of 400 psig. Cascade would be completing the uprate in full compliance with DOT 192, Subpart K "Uprating", in addition to WAC 480-93-155 "Increasing maximum allowable operating pressure".

The proposed uprate would be controlled through two new regulator stations. The first, at the east end of the pipeline at the Mount Vernon Gate Station, would regulate pressure from an MAOP of 960 psig to an MAOP of 400 psig. The second, at the west end of the pipeline near State Route 9 and Gunderson Road, would regulate pressure from an MAOP of 400 psig to an MAOP of 250 psig.

Existing Six Inch Pipeline:

The existing 12,800 foot Mount Vernon HP Line, installed in 1995, is located in rural Skagit County east of the City of Mount Vernon. The pipeline runs between the Mount Vernon Gate Station on Beaver Lake Road to the intersection of SR-9 and Gunderson Road. The pipeline location is depicted on Figure 1. It should be noted that the six inch pipeline roughly parallels an

existing four inch pipeline which also currently operates at an MAOP of 250 psig. Cascade is not proposing to change the MAOP of this four inch pipeline

The six inch pipeline is designed with a minimum component rating of 400 psig and has been pressure tested to a minimum of 600 psig. At the proposed MAOP of 400 psig, the maximum stress level of the pipe and pipeline fittings would be 16.78% of the specified minimum yield strength (SMYS); thus, the pipeline would be classified as high pressure distribution main.

Specifications of the six inch pipeline are as follows:

- 12,800 feet of 6" x 0.188" API 5L Grade X-42 Steel line pipe with extruded polyethylene coating.
- All fittings (elbows, tees, caps etc.) a minimum 0.188" wall thickness (standard weight), ANSI 16.9 WPHY-42 to meet or exceed the design rating of the 6" line pipe
- All components (valves, line stoppers, etc.) are ANSI 300 class with a maximum working pressure rating of 740 psig

Proposed Regulator Station:

The proposed station at the west end of the pipeline would be designed with a minimum component rating of 400 psig and would be pressure tested to a minimum of 600 psig. At the proposed MAOP of 400 psig, the maximum stress level of the pipe and pipeline fittings would be 9.10% of SMYS. Thus, the station would be classified as a high pressure distribution facility.

Specifications of the regulator station would be as follows:

- All pipe would be API 5L Grade X-52 Steel line pipe. All buried pipe will be hand wrapped with below ground Trenton.
- All fittings (elbows, tees, caps etc.) would be standard weight, ANSI 16.9 WPHY-52.
- All components (valves, regulators, etc.) would be ANSI 300 class with a maximum working pressure rating of 720 psig.

Design and specifications of the proposed regulator station at the Mount Vernon Gate Station is included in Cascade's letter to the WUTC: "WAC 480-93-020 – Request for Approval – Mount Vernon Gate Station Upgrade".

Proximity:

The existing six inch pipeline is located within 100 feet of the following buildings as shown on Figures 2 and 3:

- 50 feet from existing single family residence at 14770 Beaver Lake Road

- 75 feet from existing single family residence at 14750 Beaver Lake Road
- 95 feet from existing small storage shed at 14750 Beaver Lake Road
- 100 feet from existing barn at 23125 Gunderson Road
- 100 feet from existing single family residence at 23125 Gunderson Road
- 70 feet from existing shed at 23121 Gunderson Road
- 65 feet from existing single family residence at 23033 Gunderson Road
- 60 feet from existing single family residence at 23005 Gunderson Road
- 85 feet from existing detached garage at 23005 Gunderson Road
- 100 feet from existing single family residence at 22839 Gunderson Road
- 70 feet from existing single family residence at 22757 Gunderson Road
- 70 feet from existing single milk house at 22321 Gunderson Road

Cascade personnel conducted a field survey and verified that as of March 19, 2012, no additional buildings have been constructed or are under constriction since the date of the aerial photograph.

Alternatives:

As an alternative to operating the Mount Vernon HP Line at 400 psig, Cascade would be required to extend the pipeline several miles further into the City of Mount Vernon at an operating pressure of 250 psig. Although the pipeline would not require a proximity study per WAC 480-93-020, the line would be required to pass through congested urban areas with homes, businesses, and schools. Due to urban construction, the pipeline installation would have considerable impacts on the neighborhoods at a much higher cost as compared to the uprate proposal. Cascade believes the proposed plan is the best approach for expanding capacity while reducing operating costs and safety delivering gas to the Mount Vernon community.

Closing:

Cascade respectfully requests your approval to move forward with the installation of the proposed Mount Vernon uprate project, which is scheduled for a completion start of August 2012. If you have any questions or require additional information, feel free to contact me at (509) 734-4552 or via email at kevin.raschkow@cngc.com

Sincerely,
CASCADE NATURAL GAS

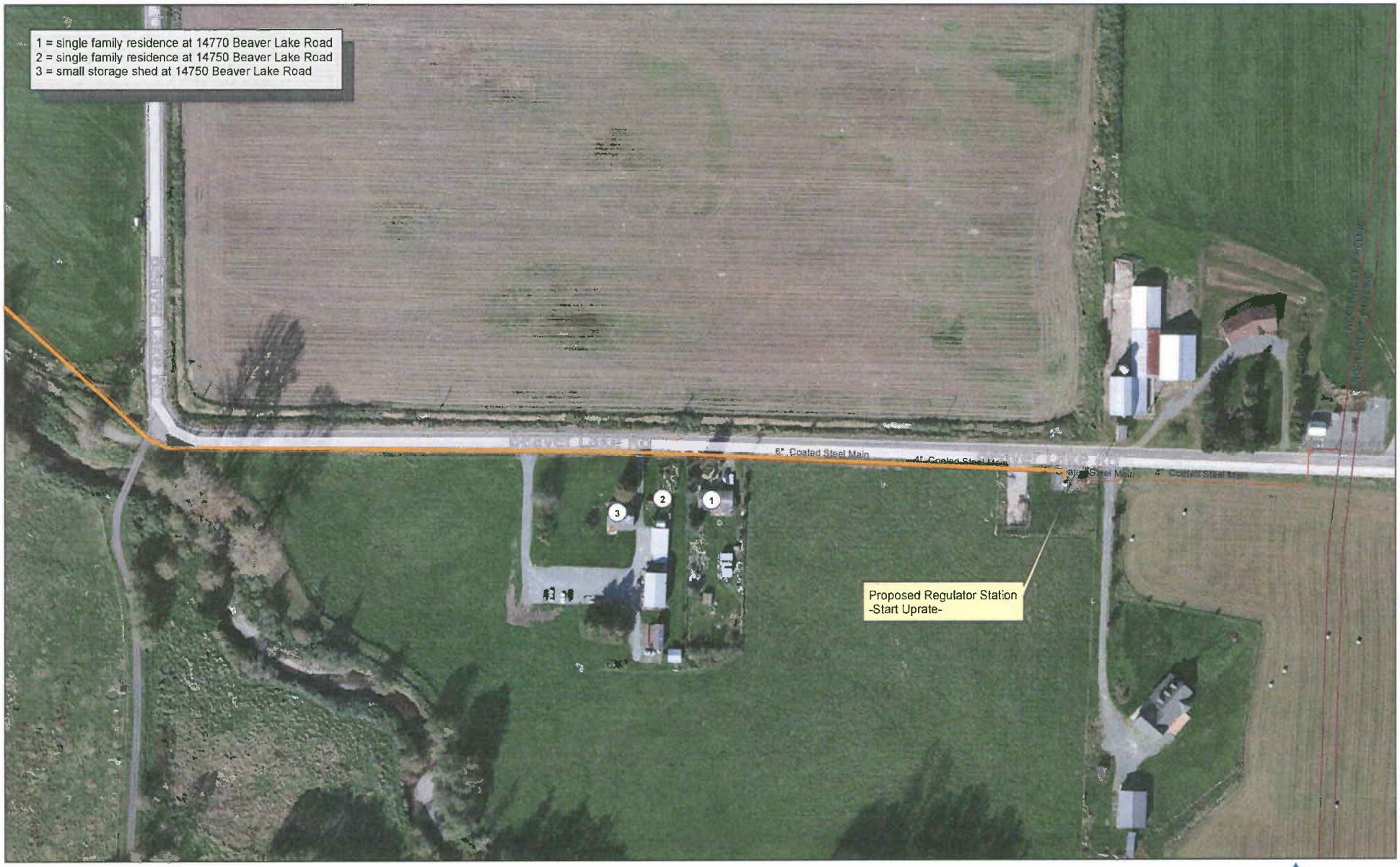
Kevin Raschkow, P.E.
Manager – Engineering Services

CC: Eric Martuscelli
Steve Kessie
Tina Beach
Ryan Lindblom
Mike Hardesty

Enclosures

Mount Vernon 6" HP Uprate - Figure 1

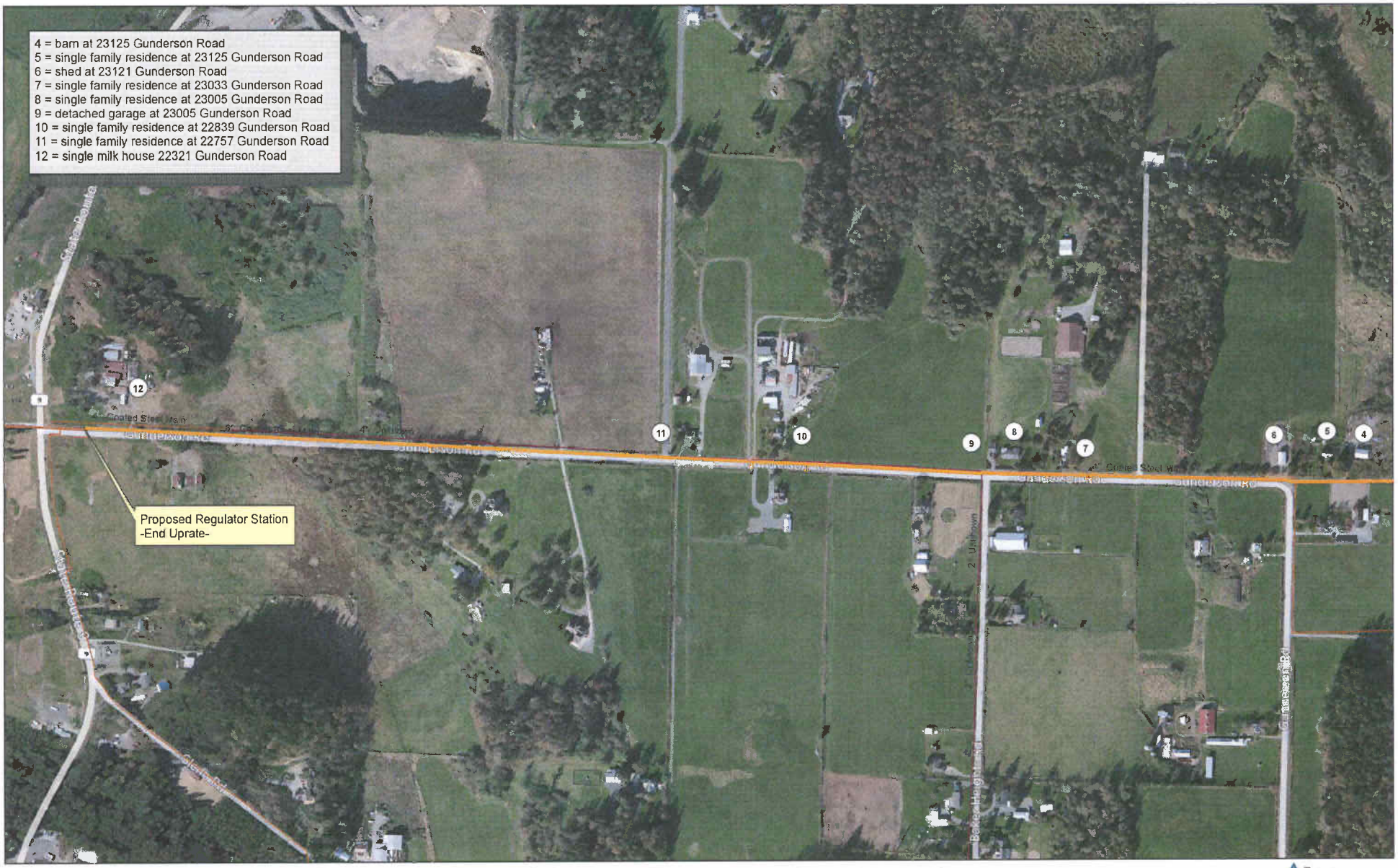
Cascade Natural Gas



Mount Vernon 6" HP Uprate - Figure 2

(Beaver Lake Road Detail)

Cascade Natural Gas Corporation



Mount Vernon 6" HP Uprate - Figure 3

(Gunderson Road Detail)

Cascade Natural Gas
In the Community to Serve