Mitigating a Section of Transmission Line Being Out of Service

Line 147 operating at 125 psig

- Contact crews to manually operate valves between L-101 and L-147 at Commercial Way (2 people), manually operate valves between L-109, L-132, and L-147 at Redacted (2 people) and to standby at 4 distribution regulators to mitigate possible over pressure event due to increased upstream pressure from L-147 (8 people total). Total of 3 crews and 12 people; a significant resource requirement.
    a) Arrival time about 1-2 hours if event occurs during work hours depending on crew location and traffic.
    b) Extended arrival times if event occurs during night, weekends, or holidays. Arrival time could be 2-5 hours.
- Valves must be opened to connect L-101 to L-147 at Redacted Install pressure gauges. Valves must be opened to connect L-132 and L-109 to L-147 at Redacted Two person crews at each of the 4 distribution regulator stations to standby for avoiding over pressure event. About 1½-2 hours.
- Edgewood must be set up for hand throttling of valve to prevent over pressure of L-109 and L-132. Installation of pressure gauges. About 1 hour.
- Estimated time for pressure to increase from 110 psig (current pressure) to 330 psig: ½ to 1 hour.

Summary of time required assuming two crews are sent; one to Commercial Way and one to Edgewood Station:

	Event Occurs During Work Hours	Event Occurs During Off Hours	Operations
Contact crews, arrive on site	1 to 2 hours	2 to 5 hours	
Open valves at Redacted and Redacted install 2 gauges at each location. Four 2 person crews at each dist reg to ensure no over press event	1½-2 hours	1½-2 hours	Redacted – Open 2 valves, check 5 valves, install 2 gauges Redacted – Open 1 valve, check 11 valves, install 2 gauges Standby at 4 dist regs, possibly operate to avoid over press event
Set up Edgewood for hand throttling	½ hour	½ hour	Edgewood – Hand throttle 1 valve
Increase system pressure from 110 to 330 psig	1 hour	1 hour	
Total time for L-147 to fully function as a cross tie	**4 to 5½ hours**	**5 to 8½ hours**	

Summary –

- 4 to 8½ hours implementation time creates significant risk of uncontrolled outages on the Peninsula
- Extensive resources required; 3 crews, 12 people. Mobilization and travel time significant.
- Risk of over pressure event due to L-147 pressure increase (from 125 to 330 psig) creating large change in upstream pressure of 4 distribution regulators.

Line 147 operating at 330 psig

Line 147 will automatically function as a cross tie. All of the above time, resources and risks are avoided.