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MILLCREEK TOWNSHIP WATER AUTHORITY

PEACH STREET PUMP STATION PRESENTATION

APRIL 22, 2009

<u>Existing Pump Capacity with Interim Improvements</u>	<u>GPM</u>	<u>GPD</u>
Peak Hourly Flow Rate	1,675	2,412,000
Peak Daily Flow Rate	1,200	1,728,000

Existing Demands - Peak Daily Flow

Millcreek Township Water Authority	120	175,600
Summit Township Water Authority	740	1,069,000
Countryside Mobile Home Park	40	55,000
Erie Water Works/McKean	<u>35</u>	<u>48,600</u>
Totals	935	1,348,200

Peak Hourly Demand at 1.6 Peaking Factor 1,500 2,160,000

Conclusion: Pump station is adequate to meet existing peak day consumptive use demands with about 380,000 GPD reserve capacity.

Future Demands - Peak Daily Flow

Millcreek Township Water Authority (n/i Millcreek Mall)	280	400,000
Summit Township Water Authority	1,100	1,600,000
Countryside Mobile Home Park	50	64,000
Erie Water Works/McKean (to 2020)	<u>110</u>	<u>160,000</u>
Totals	1,540	2,224,000

Peak Hourly Demand at 1.6 Peaking Factor 2,460 3,542,400

Conclusion: Pump station is inadequate. Additional capacity is required.

Fire Flow Considerations

Minimum required fire flow = 1,500 GPM for 2 hour duration. Existing pumps could supply this with 125 GPM (180,000 GPD) available for consumptive use.

Conclusion: Existing pumping capacity is marginal for fire protection within the MTWA service district, particularly during Peak Day/Peak Hour demands. Additional pumping capacity for fire protection is desirable and would supplement available withdrawals from storage through the Route 99 PRV.