



Estabrook Dam Environmental Assessment Public Scoping Meeting

Hydraulic Analyses of Alternatives

June 5, 2014

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Estabrook Dam Environmental Assessment Alternatives, Milwaukee River Water Surface Profiles for Normal (Median) Flow

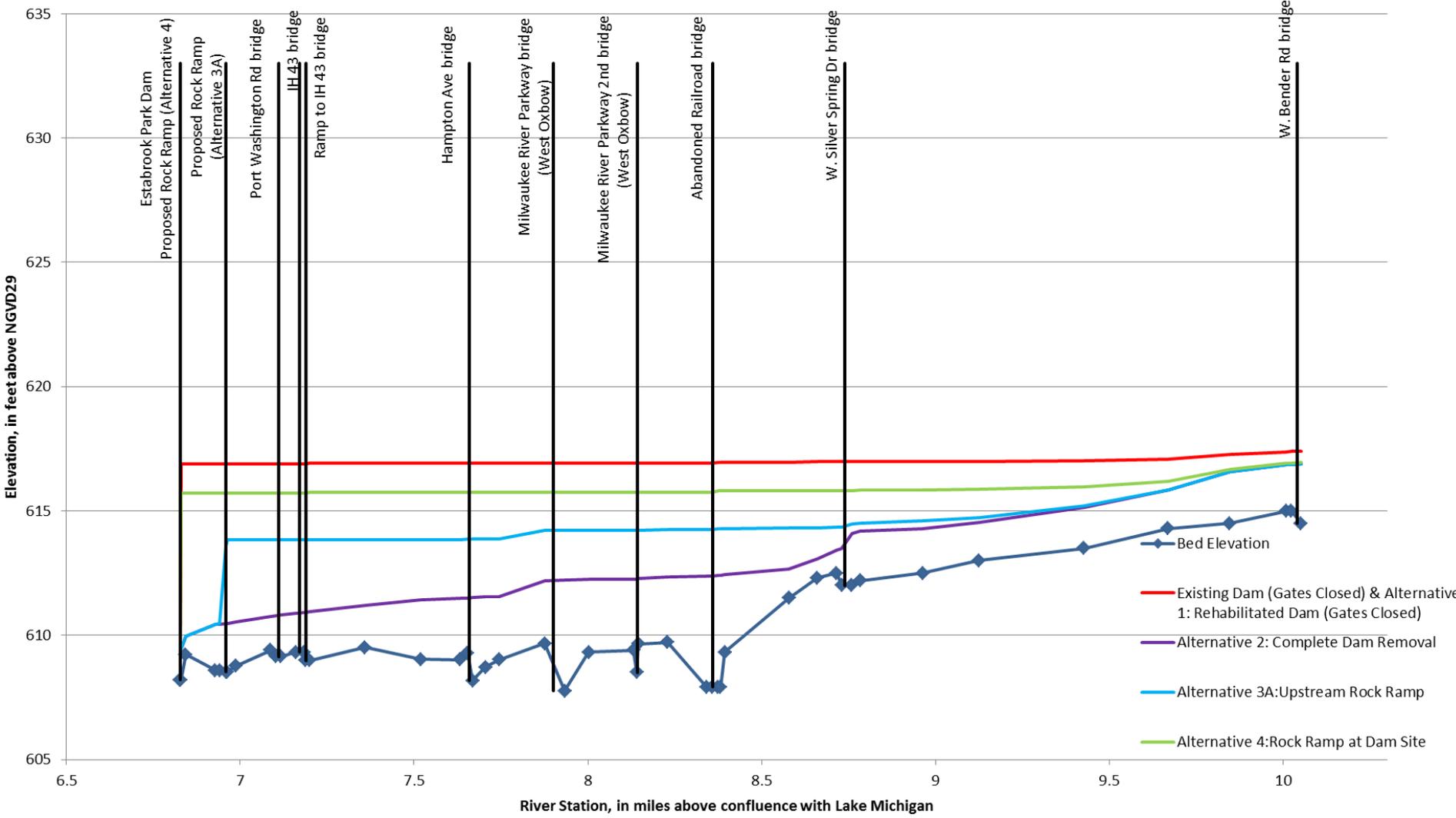


Table 6**MAXIMUM WATER DEPTH UNDER MEDIAN FLOW CONDITIONS**

Condition Alternative	Lower Reach (Estabrook dam or Rock Ramp to W. Hampton Avenue) (feet)	Middle Reach (W. Hampton Avenue to abandoned railroad bridge upstream of Lincoln Park) (feet)	Upper Reach (Abandoned Railroad Bridge Upstream of Lincoln Park to W. Bender Road) (feet)	W. Silver Spring Drive to W. Bender Road (subreach of Upper Reach) (feet)
Existing Condition	7.4 to 8.7	6.3 to 9.2	2.4 to 9.1	2.4 to 5.0
Alternatives 1 and 1A Rehabilitated Dam (with and without fish passage)	7.4 to 8.7	6.3 to 9.2	2.4 to 9.1	2.4 to 5.0
Alternative 2 Dam Abandoned and Removed	0.7 to 2.5	1.6 to 4.5	0.8 to 4.5	1.5 to 2.1
Alternative 3 Dam Abandoned and Removed with a 5.5-Foot-High Rock Ramp Constructed	5.8 to 6.8	4.7 to 7.6	1.7 to 7.5	1.7 to 3.4
Alternative 3A Dam Abandoned and Removed with a Four-Foot-High Rock Ramp Constructed	4.3 to 5.3	3.6 to 6.5	1.5 to 6.4	1.5 to 2.5
Alternative 4 Gated Portion of Dam Abandoned and Removed with a 6.3-Foot-High Rock Ramp Constructed and Lowered and Rehabilitated Overflow Spillway	6.2 to 7.5	5.1 to 8.0	1.9 to 7.9	1.9 to 3.8

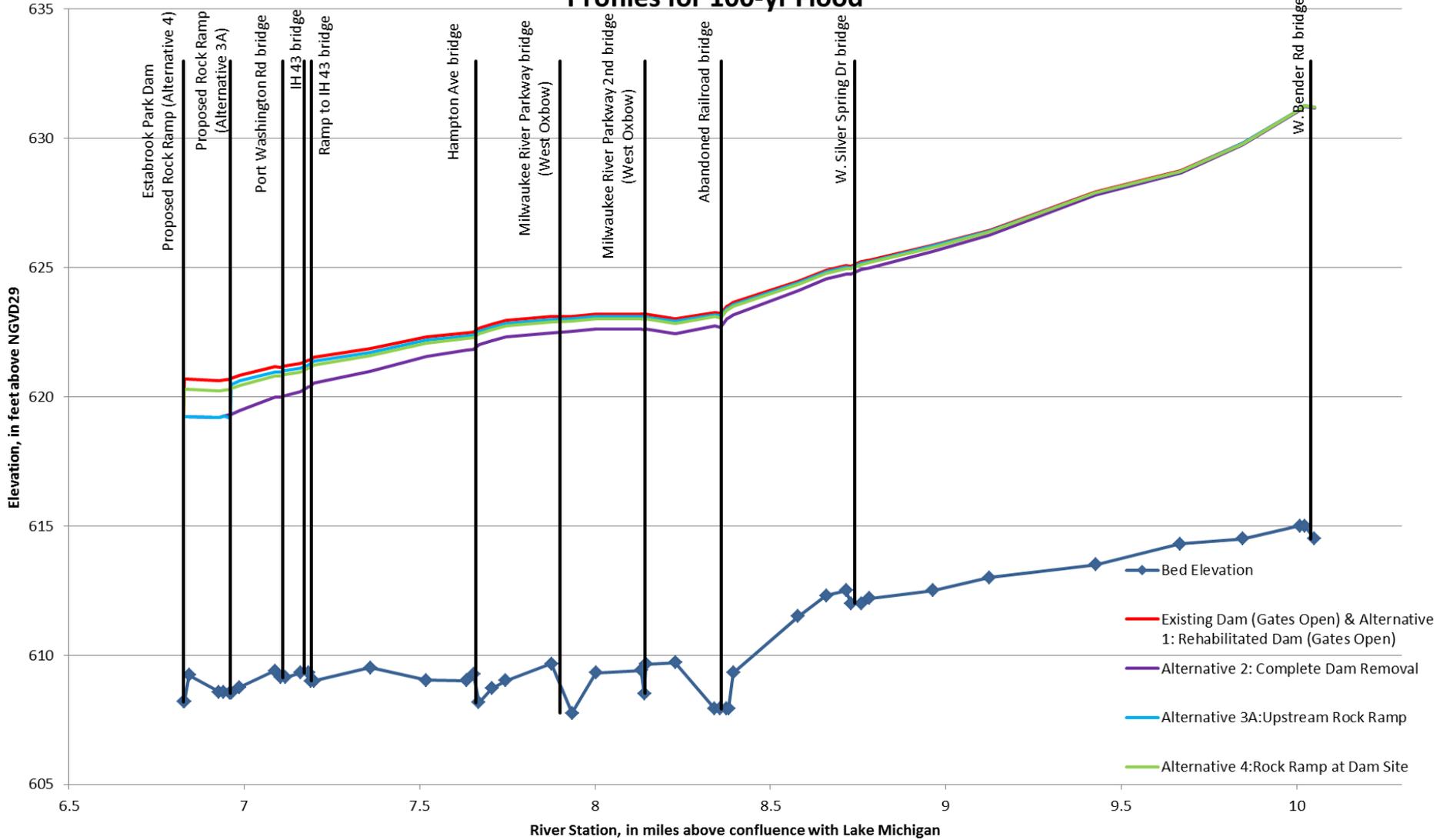
Table 6

MAXIMUM WATER DEPTH UNDER MEDIAN FLOW CONDITIONS

Condition Alternative	Lower Reach (Estabrook dam or Rock Ramp to W. Hampton Avenue) (feet)	Middle Reach (W. Hampton Avenue to abandoned railroad bridge upstream of Lincoln Park) (feet)	Upper Reach (Abandoned Railroad Bridge Upstream of Lincoln Park to W. Bender Road) (feet)	W. Silver Spring Drive to W. Bender Road (subreach of Upper Reach) (feet)
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Alternative 3A Dam Abandoned and Removed with a Four- Foot-High Rock Ramp Constructed	4.3 to 5.3	3.6 to 6.5	1.5 to 6.4	1.5 to 2.5
Alternative 4 Gated Portion of Dam Abandoned and Removed with a 6.3- Foot-High Rock Ramp Constructed and Low- ered and Rehabilitated Overflow Spillway	6.2 to 7.5	5.1 to 8.0	1.9 to 7.9	1.9 to 3.8

Source: SEWRPC.

Estabrook Dam Environmental Assessment Alternatives, Milwaukee River Water Surface Profiles for 100-yr Flood



W. Silver Spring Drive to W. Bender Road, Milwaukee River Water Surface Profiles for 100-yr Flood

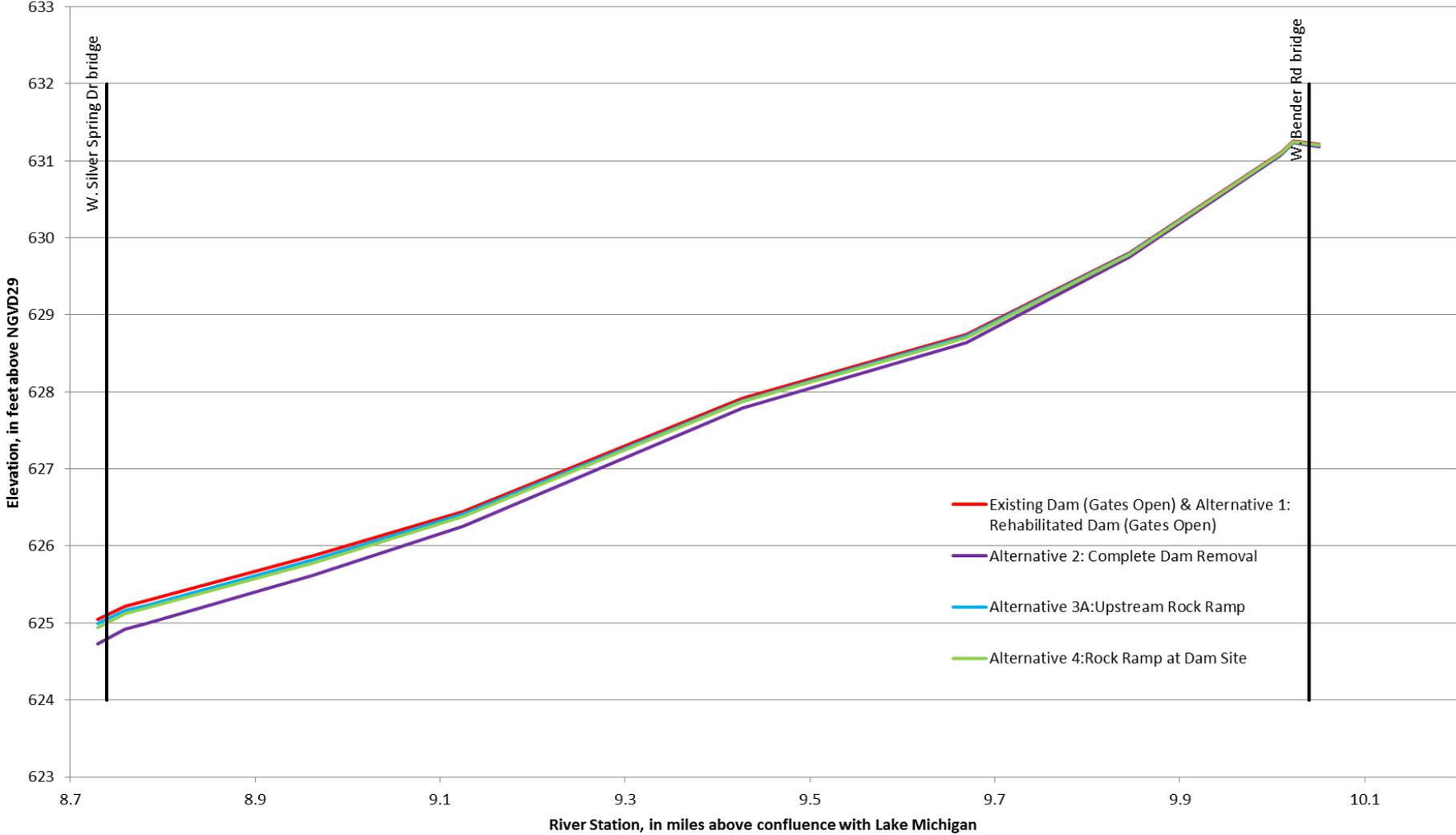


Table 7

CHANGES IN ONE-PERCENT-ANNUAL-PROBABILITY

WATER SURFACE ELEVATIONS AS COMPARED TO EXISTING CONDITIONS

Condition Alternative	Lower Reach (Estabrook dam or Rock Ramp to W. Hampton Avenue) (feet)	Middle Reach (W. Hampton Avenue to abandoned railroad bridge upstream of Lincoln Park) (feet)	Upper Reach (Abandoned Railroad Bridge Upstream of Lincoln Park to W. Bender Road) (feet)	W. Silver Spring Drive to W. Bender Road (subreach of Upper Reach) (feet)
Alternatives 1 and 1A Rehabilitated Dam (with and without fish passage)	0	0	0	0
Alternative 2 Dam Abandoned and Removed	-0.7 to -1.5	-0.5 to -0.7	0 to -0.5	0 to -0.3
Alternative 3 Dam Abandoned and Removed with a 5.5-Foot-High Rock Ramp Constructed	0.7 to 1.2	0.6 to 0.7	0 to 0.6	0 to 0.4
Alternative 3A Dam Abandoned and Removed with a Four-Foot-High Rock Ramp Constructed	-0.1 to -0.2	-0.1	0 to -0.1	0 to -0.1
Alternative 4 Gated Portion of Dam Abandoned and Removed with a 6.3-Foot-High Rock Ramp Constructed and Low- ered and Rehabilitated Overflow Spillway	-0.2 to -0.4	-0.2	0 to -0.2	0 to -0.1

**Table 7
CHANGES IN ONE-PERCENT-ANNUAL-PROBABILITY
WATER SURFACE ELEVATIONS AS COMPARED TO EXISTING CONDITIONS**

Condition Alternative	Lower Reach (Estabrook dam or Rock Ramp to W. Hampton Avenue) (feet)	Middle Reach (W. Hampton Avenue to abandoned railroad bridge upstream of Lincoln Park) (feet)	Upper Reach (Abandoned Railroad Bridge Upstream of Lincoln Park to W. Bender Road) (feet)	W. Silver Spring Drive to W. Bender Road (subreach of Upper Reach) (feet)
Alternatives 1 and 1A Rehabilitated Dam (with and without fish passage)	0	0	0	0
Alternative 2 Dam Abandoned and Removed	-0.7 to -1.5	-0.5 to -0.7	0 to -0.5	0 to -0.3
Alternative 3 Dam Abandoned and Removed with a 5.5-Foot-High Rock Ramp Constructed	0.7 to 1.2	0.6 to 0.7	0 to 0.6	0 to 0.4
Alternative 3A Dam Abandoned and Removed with a Four-Foot-High Rock Ramp Constructed	-0.1 to -0.2	-0.1	0 to -0.1	0 to -0.1
Alternative 4 Gated Portion of Dam Abandoned and Removed with a 6.3-Foot-High Rock Ramp Constructed and Lowered and Rehabilitated Overflow Spillway	-0.2 to -0.4	-0.2	0 to -0.2	0 to -0.1