

2016 BIOMONITORING RESULTS:

**GORE CREEK
EAGLE RIVER**

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Overview

- Sampling methods and analysis
- 2016 Results
- Comparison with previous years



Gore Creek above Black Gore Creek



Downstream of Glen Lyon Bridge



September 2017



EAGLE RIVER
WATER & SANITATION
DISTRICT



Downstream of Glen Lyon Bridge Sample



September 2017

East Vail Sample

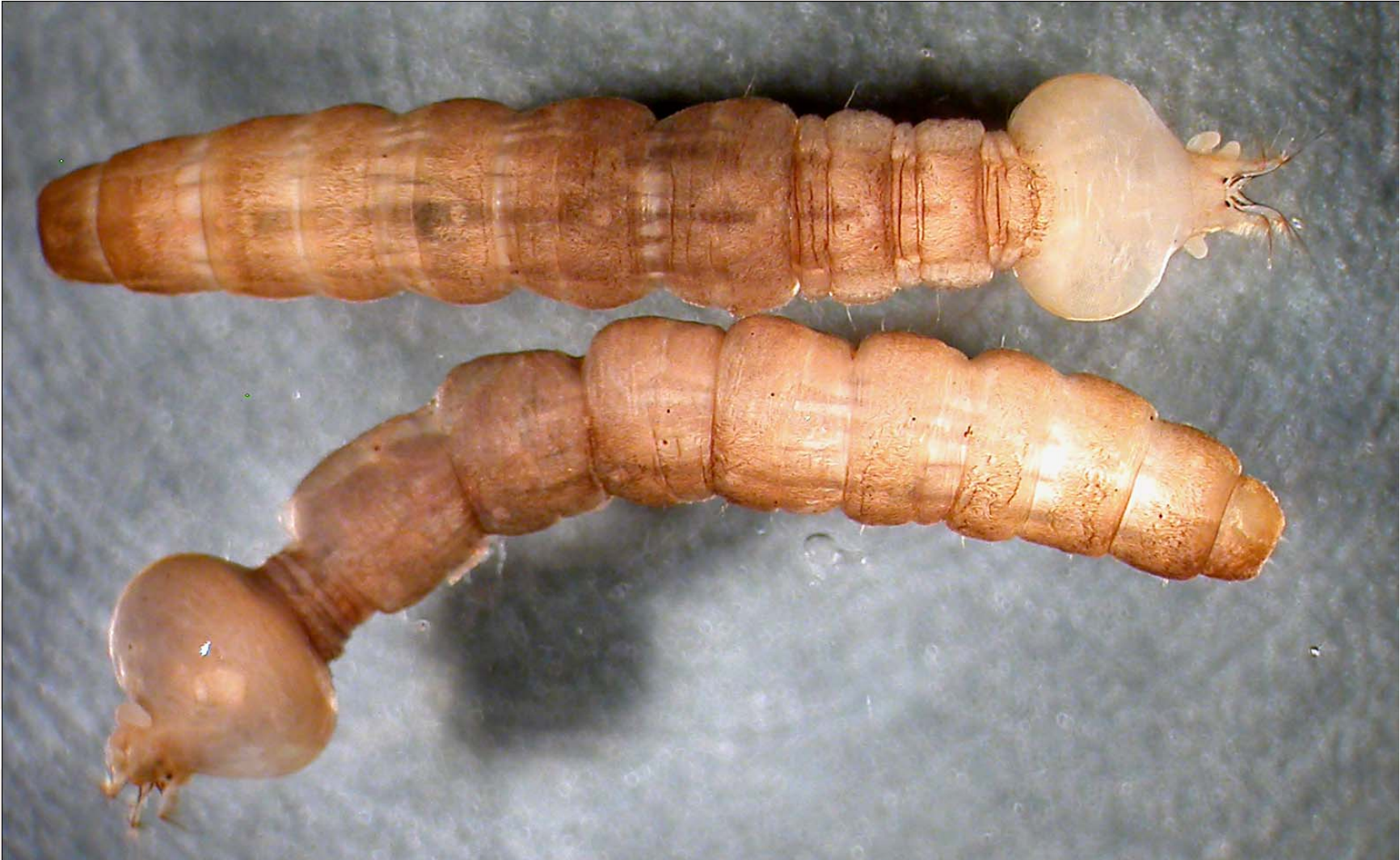


September 2017

Simulium vittatum: Collector-Filterer, Clinger



Hexatoma: Predator, Burrower



Pseudodiamesa sp.: Collector-Gatherer, Sprawler



Heleniella: Collector-Gatherer, Sprawler



MMI: Multi-Metric Index

Measures overall health of aquatic communities in two biotypes

EPT: Ephemeroptera, Plecoptera, and Trichoptera

Measures sensitive taxa

HBI: Hilsenhoff Biotic Index

Measures nutrient tolerant taxa

Multi-Metric Index (MMI)

- Combines 5-6 equally weighted metric values
- Scores based on relative percent comparison to a reference condition
- Values range from 0.0 to 100.0
- Higher values indicate better aquatic conditions

MMI Biotype 2

50.1 - 100.0

Attainment

42.0 - 50.0

Grey Zone

0.0 - 41.9

Impaired

Gore Creek



Gore Creek

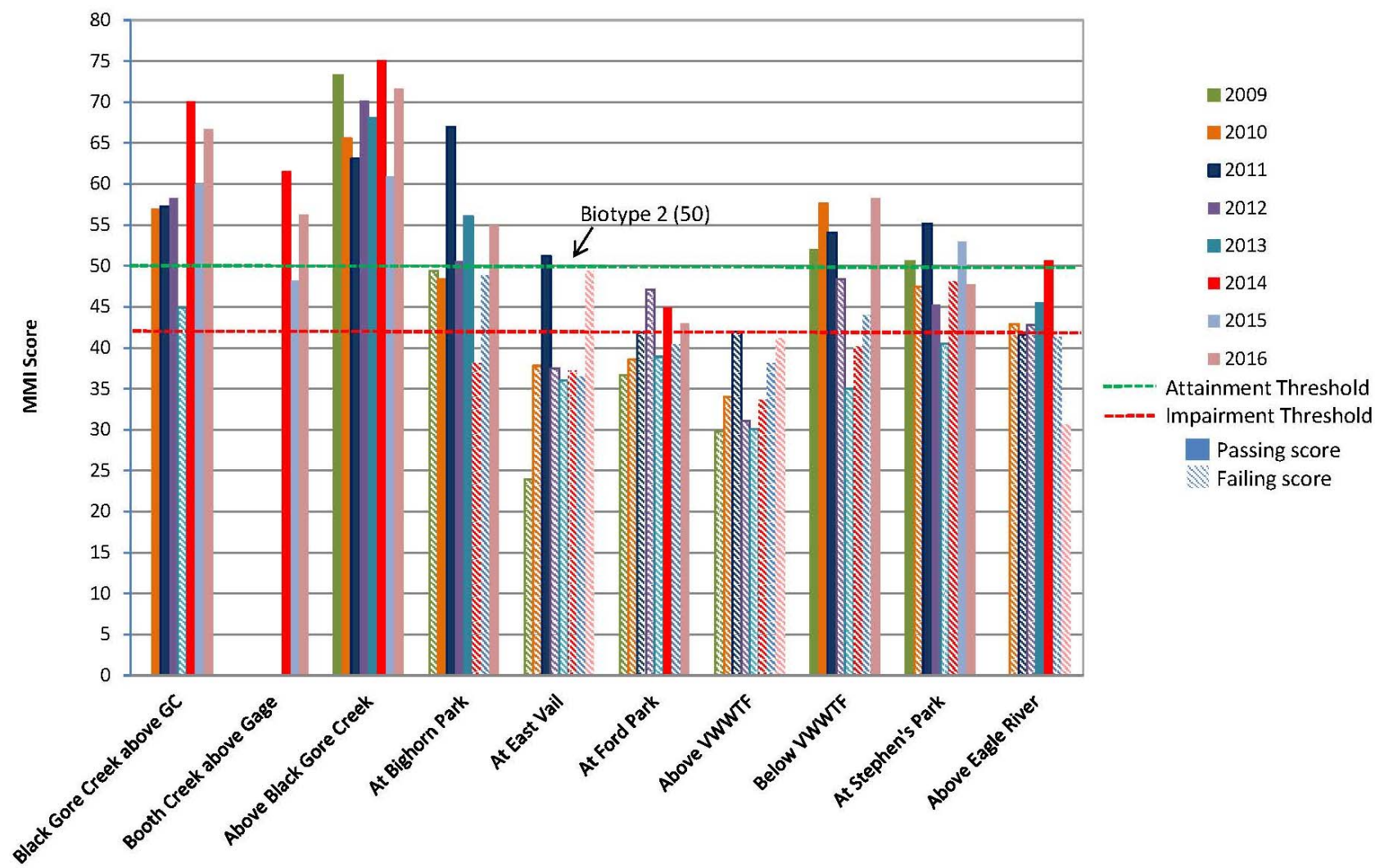


Gore Creek



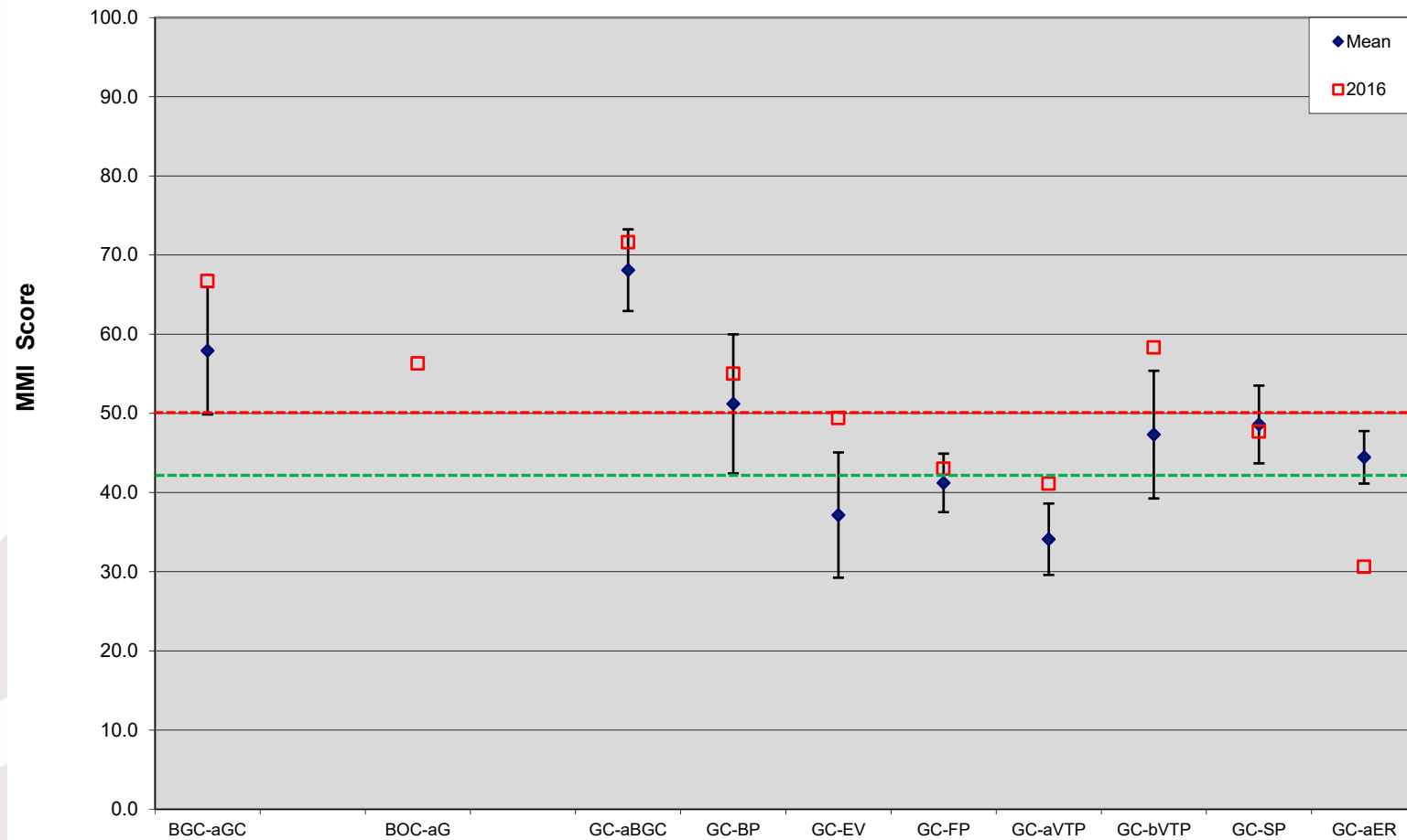
Gore Creek MMI

Fall 2009-2016

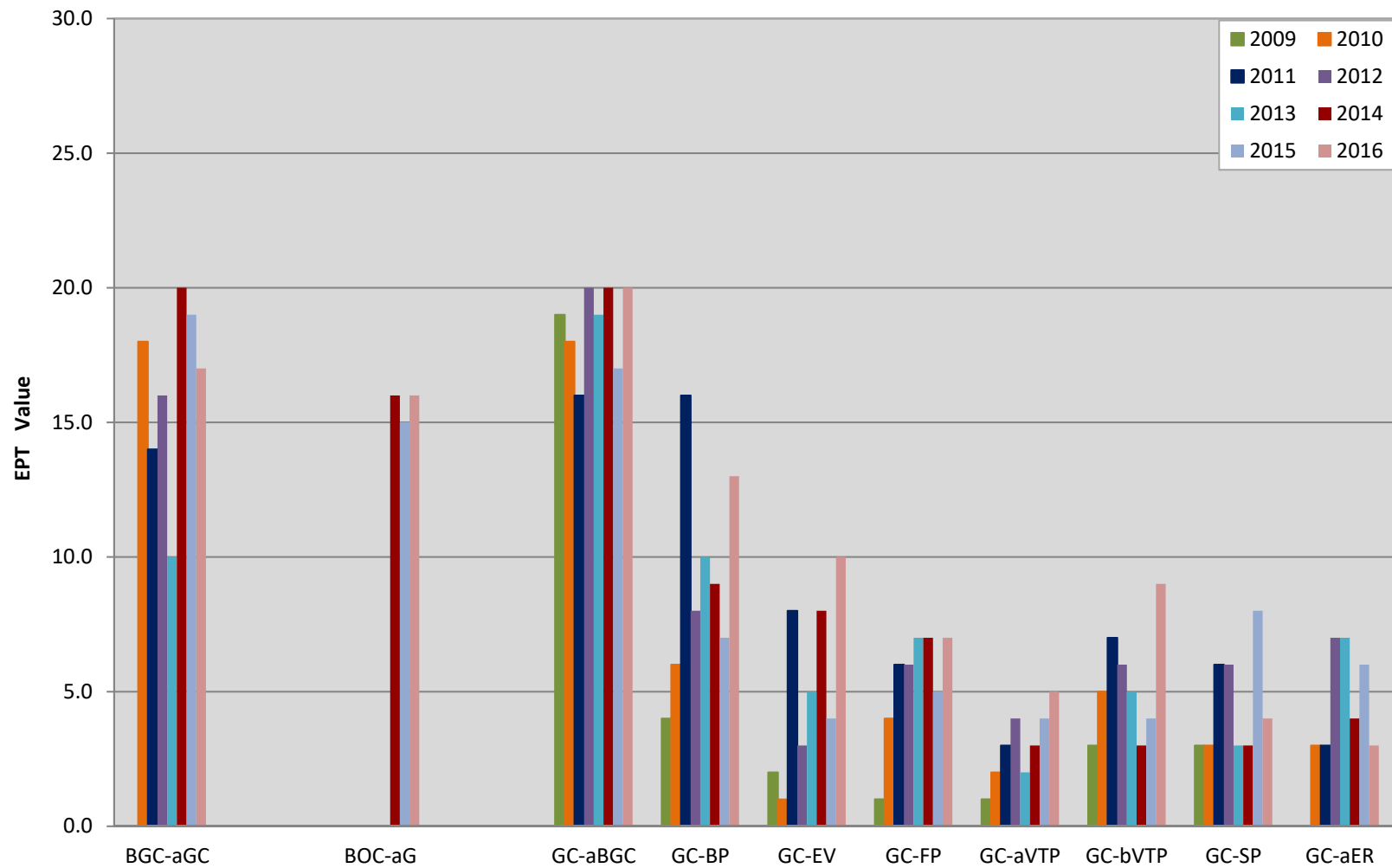


Gore Creek MMI

MMI Scores (Fall 2016)

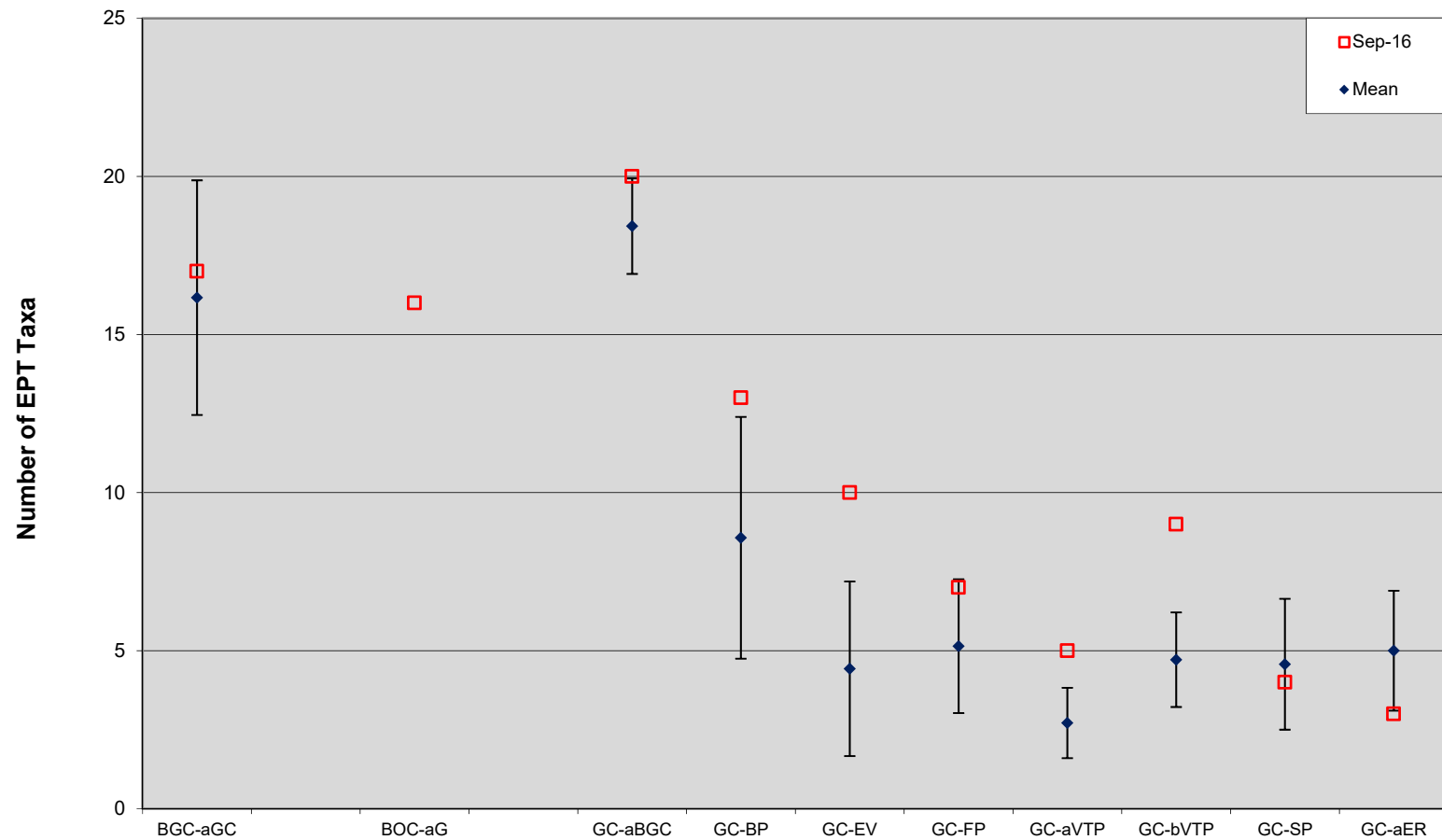


Gore Creek EPT 2009-2016



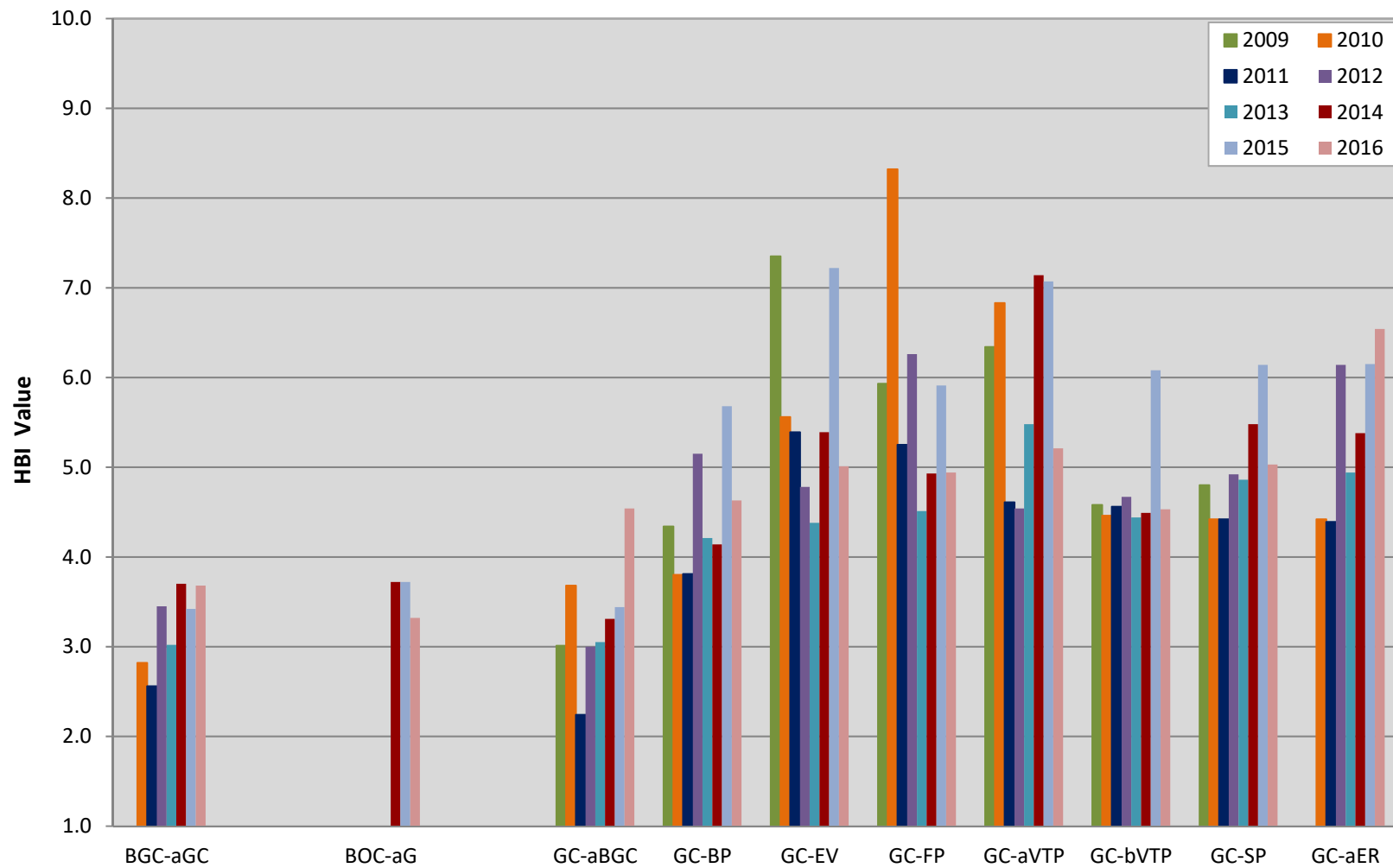
Gore Creek EPT

EPT Index Values (Fall)



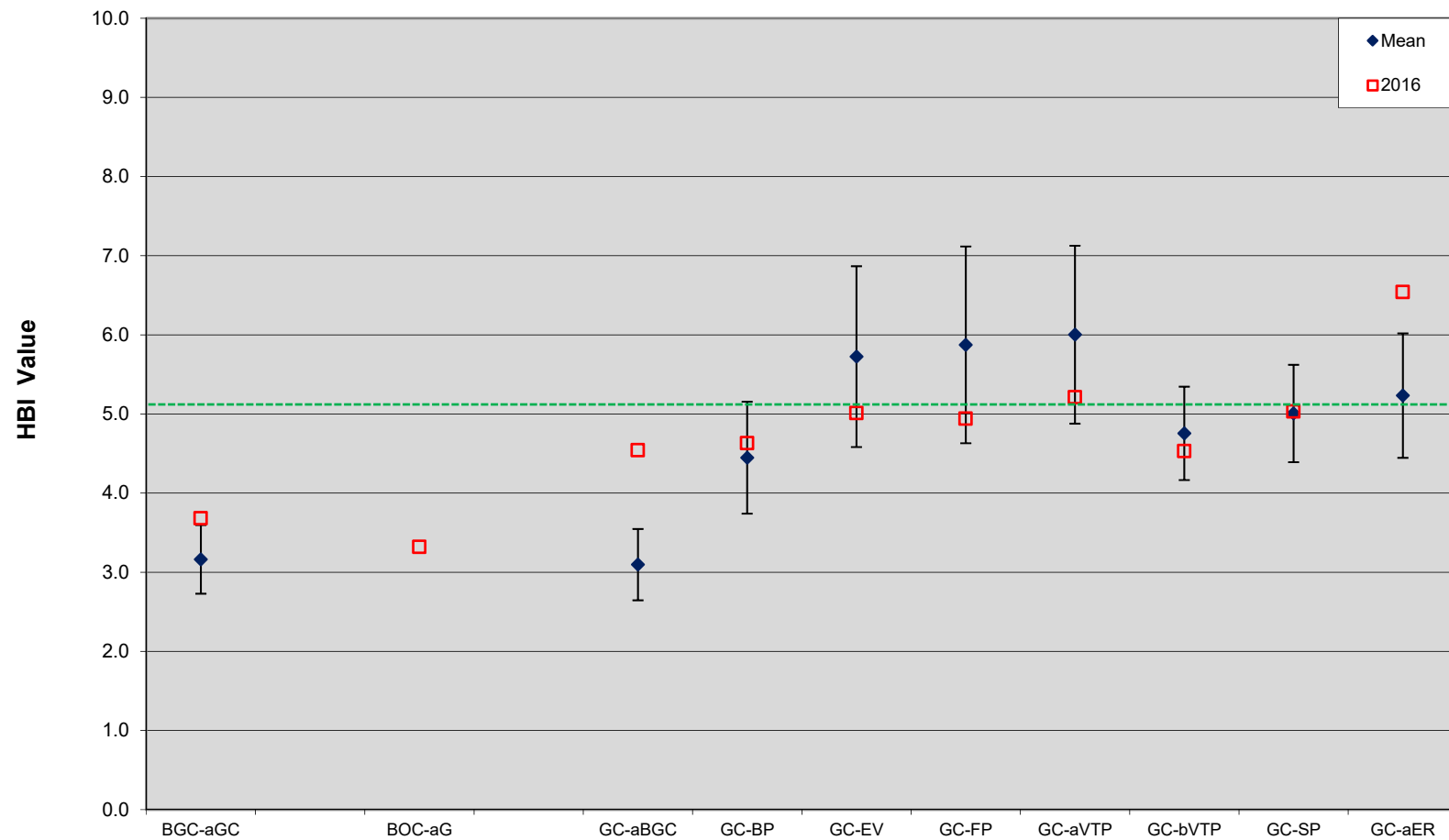
Gore Creek HBI

2009-2016



Gore Creek HBI

HBI Values (Fall 2016)





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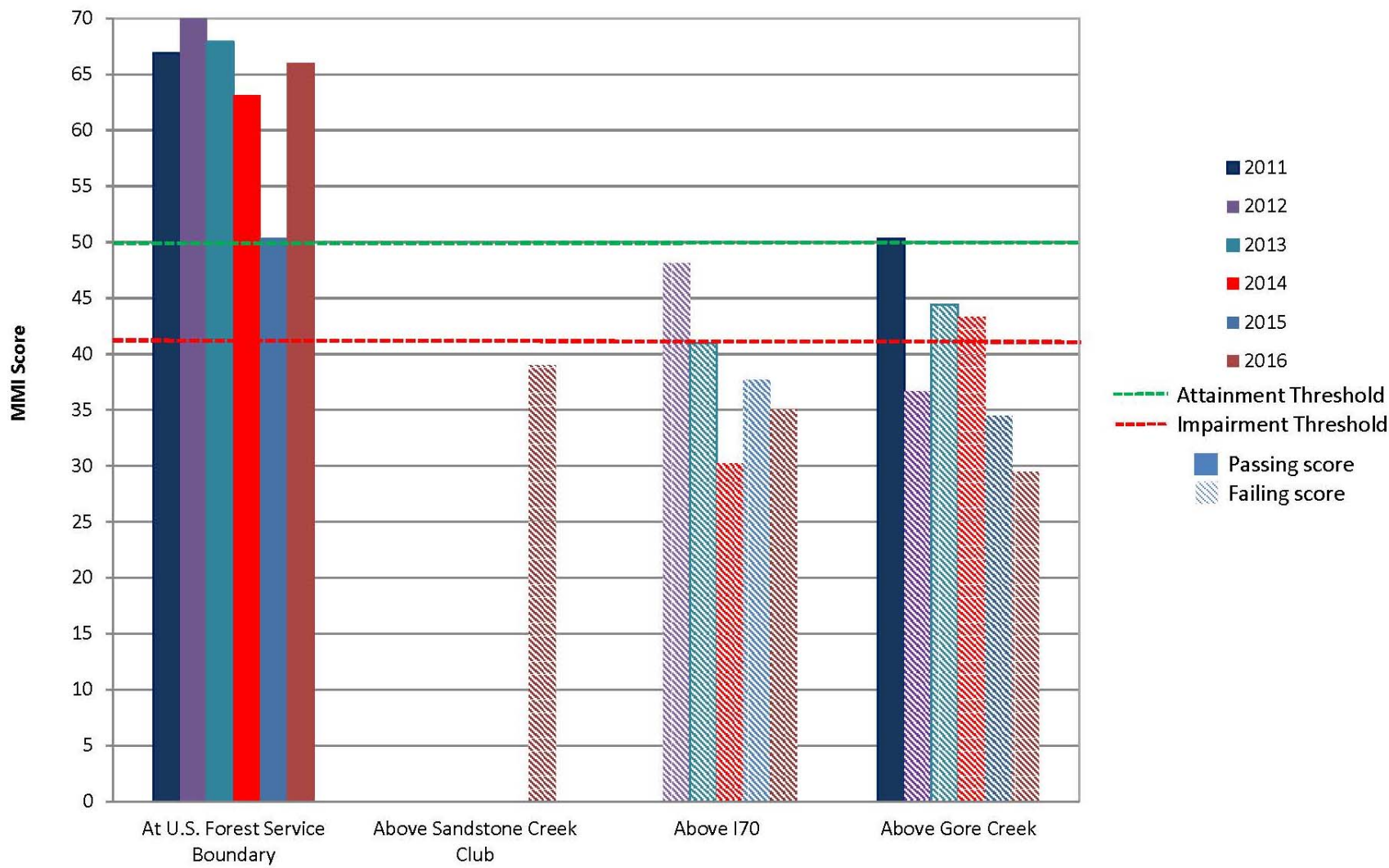


Red Sandstone Creek



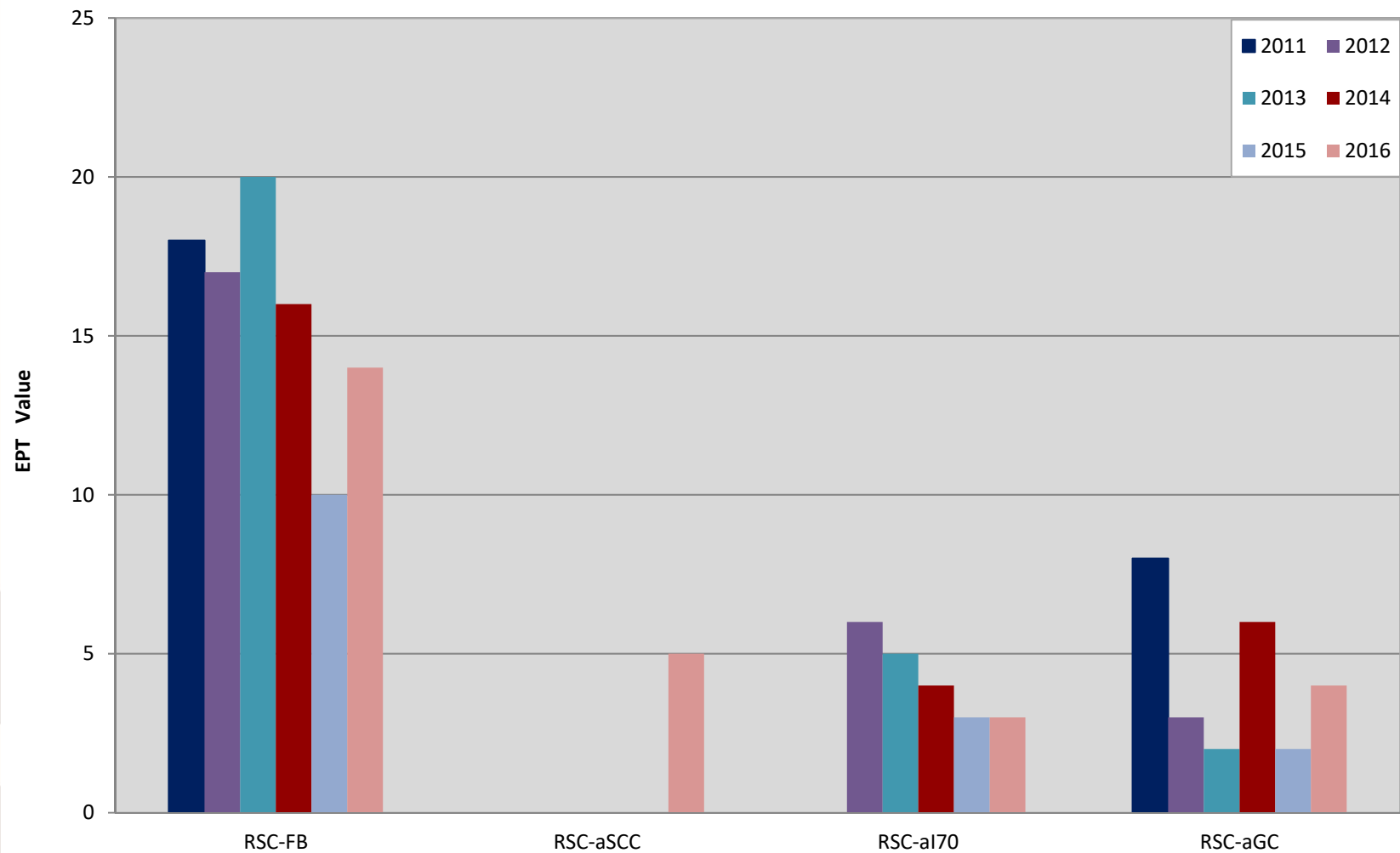
Red Sandstone Creek MMI

Fall 2009-2016



Red Sandstone Creek EPT

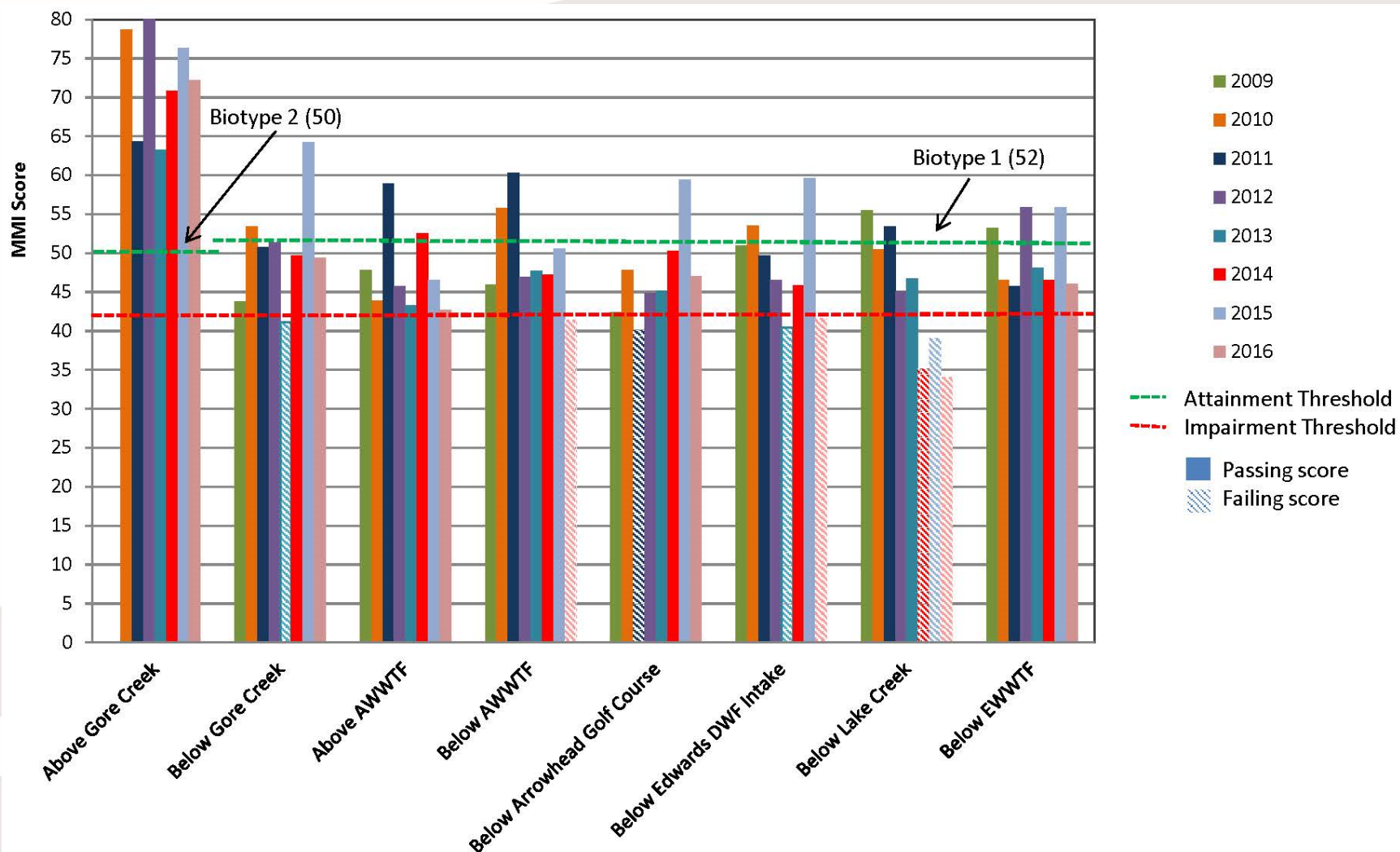
2011-2016



Eagle River



Eagle River MMI Fall 2009-2016



Summary

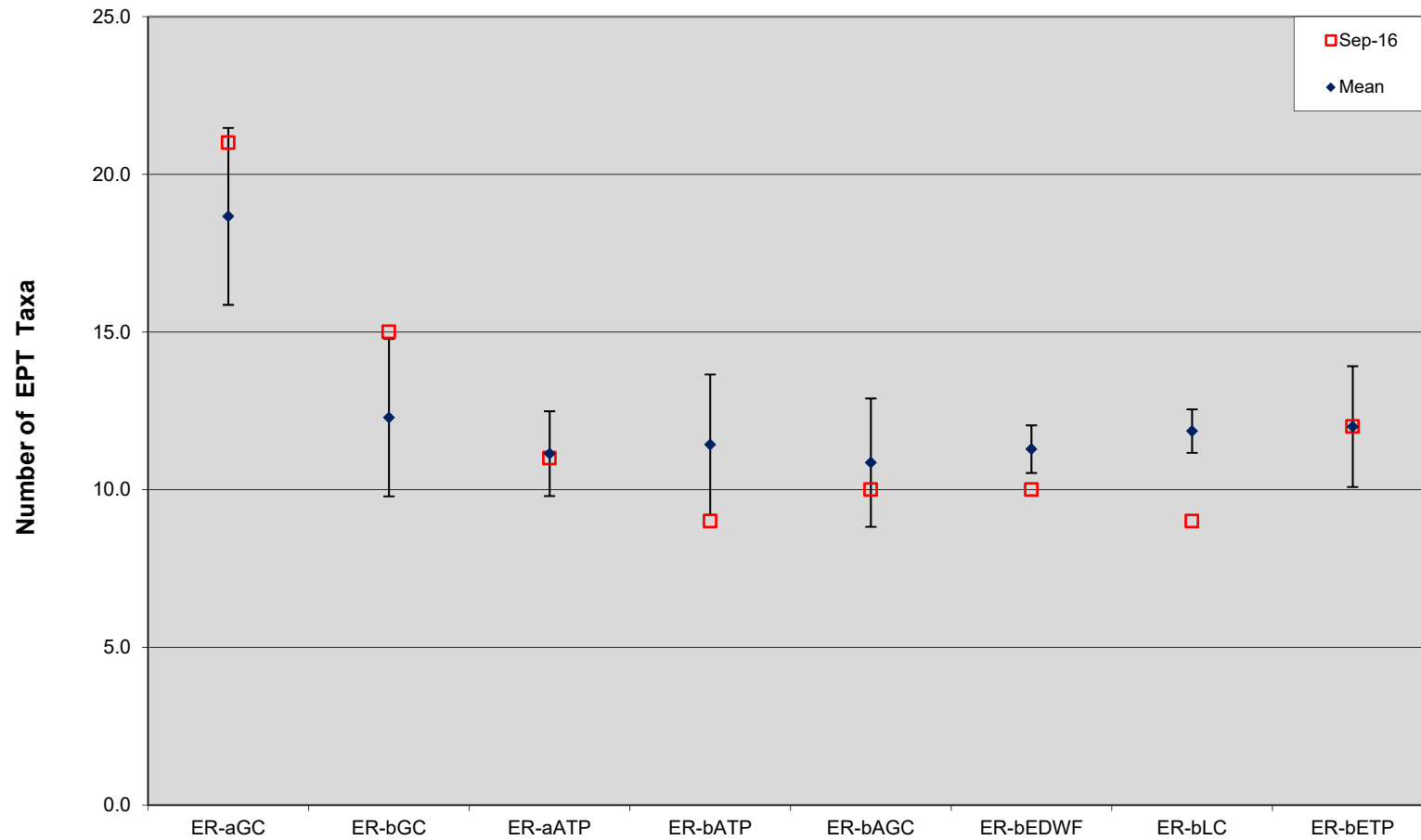
- Stress to aquatic life generally increases in areas with greater urban development
- Some evidence of improvements in the upper portions of Gore Creek
- Most Eagle River MMI scores were near the impairment threshold

Questions



Eagle River EPT

EPT Index Values (Fall)



Eagle River HBI

HBI Values (Fall 2016)

