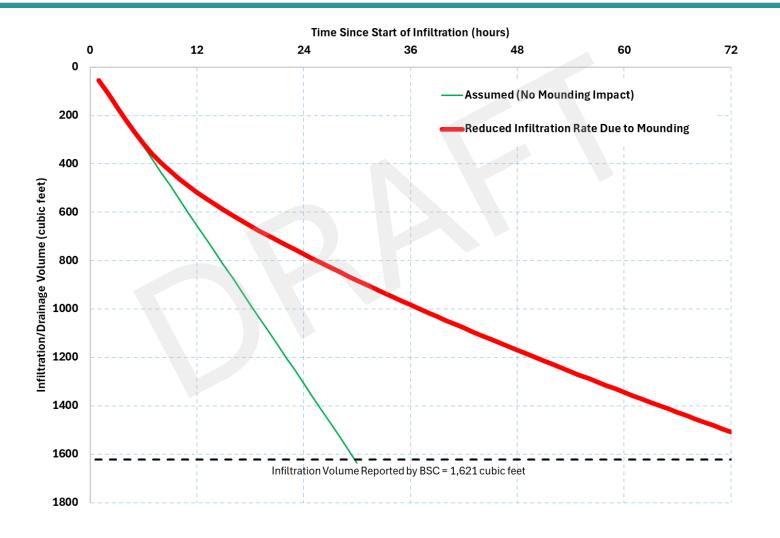
Additive Mounding Impacts – Numerical Example

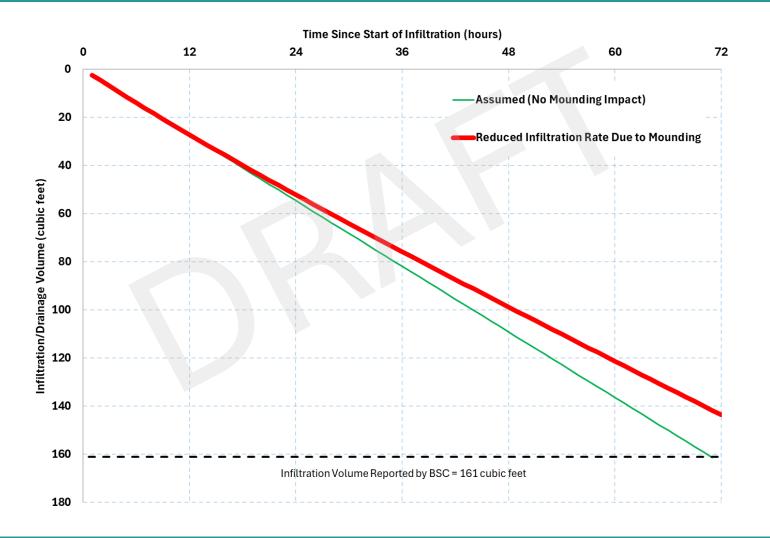
- Not to be used by others to support any current or future proposed design. Reliable site-specific modeling would require additional effort (e.g., calibration) and supporting information/data.
- Intent: if the mounding analysis were to account for effects from other systems and subsurface barriers, what would it generally show?
- Relies on nearly identical set of assumptions BSC accepted in using Hantush (e.g., quasi-infinite aquifer extent, aquifer properties, etc.)
- Allows for representation of all simultaneously active infiltration systems (rain garden excluded), local lateral boundaries (foundations) w/ accurate vertical extent, etc.
- Can approximate adverse effects of mounding on infiltration rates using head-dependent boundary conditions rather than specified flows at infiltration systems.



Numerical Example – System 7

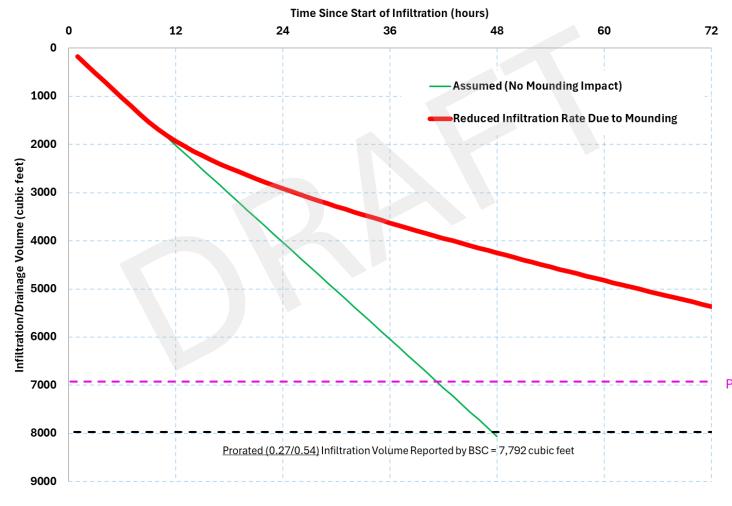


Numerical Example - System 2 (Townhomes)





Numerical Example - System 1



2-Year, 24-Hour StormProrated (0.27/0.54) Infiltration Volume

Reported by BSC = 6,946 cubic feet



From: Michael Mobile

To: <u>David Morgan; ConComm; Chuck Tirone; Susan Chapnick</u>

Cc: Chris Leich; Scott horsley

Subject: RE: Thorndike Place - Comment Letters on GZA Review

Date: Wednesday, February 5, 2025 12:39:53 PM

Attachments: image001.pnq

image002.png

MMA Numerical Example Slides 2-6-25.pdf

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Good Afternoon David and Commission Members,

I have attached a supplement to my latest comment letter, dated February 3, 2025. The slides, which I hope to present during tomorrow night's meeting, summarize a numerical modeling (i.e., MODFLOW) example that further supports the points raised in my latest letter and prior letters.

Consistent with industry-standard practice, I am sharing the electronic model files to facilitate reviews of the inputs and results. A directory containing a ZIP archive and a README, which must be reviewed prior to extracting files from the archive, is accessible via the following link: https://tinyurl.com/wnmihuc5

Please acknowledge this email and the attached materials have been received.

Much appreciated,

Mike

Michael Mobile, Ph.D., CGWP McDonald Morrissey Associates, LLC 46 S. Main Street, Suite 3, Concord, NH 03301 (NEW ADDRESS)

MikeMobile@McDonaldMorrissey.com

Office: 603-228-2280 Mobile: 603-493-5560





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this transmission, including any attachments, without reading or saving in any manner. Thank you.

From: Michael Mobile

Sent: Monday, February 3, 2025 4:10 PM

To: David Morgan <dmorgan@town.arlington.ma.us>; ConComm

<ConComm@town.arlington.ma.us>; Chuck Tirone <ctirone@ci.reading.ma.us>;

s.chapnick@comcast.net

Cc: Chris Leich <cmleich@comcast.net>; Scott horsley <scotthorsley208@gmail.com>

Subject: Thorndike Place - Comment Letters on GZA Review

Good Afternoon David and Commission Members,

I have attached two comment letters that pertain to the proposed Thorndike Place project. Please acknowledge they have been received.

Thank you,

Mike

Michael Mobile, Ph.D., CGWP
McDonald Morrissey Associates, LLC
46 S. Main Street, Suite 3, Concord, NH 03301 (NEW ADDRESS)
MikeMobile@McDonaldMorrissey.com

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GROUND WATER HYDROLOGISTS



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