APPENDIX C

February 26, 2019, Public Meeting

- C-1 February 26, 2019, Notice of Public Meeting
- C-2 February 26, 2019, Public Meeting Transcription
- C-3 February 26, 2019, Public Meeting - NHDES Presentation
- C-4 Newfound Current and Proposed Operating Curves 2019

The State of New Hampshire
ırtment of Environmental Services

Robert R. Scott, Commissioner

STATE OF NEW HAMPSHIRE
DEPARTMENT OF ENVIRONMENTAL SERVICES
DAM BUREAU - WATER DIVISION
CONCORD, NH
NOTICE OF PUBLIC HEARING

In accordance with RSA 482:79, notice is hereby given that the New Hampshire Department of Environmental Services, Water Division (NHDES), will hold a public meeting related to an investigation of levels of inland waters (Lake Level Investigation) at Newfound Lake at 6:00 PM February 26, 2019 at the Minot-Sleeper Library, 35 Pleasant Street, Bristol, NH.

Newfound Lake is located in the towns of Bristol, Alexandria, Bridgewater, and Hebron, NH. NHDES held a public hearing relative to a petition to conduct a LLI on August 28, 2018, and much of the testimony received at the hearing and during the comment period supported a lowering of lake levels at Newfound Lake throughout the year. NHDES seeks to inform the public of interim operational plans for the Newfound Lake Dam and to collect further data and testimony.

NHDES will provide a brief presentation on the Newfound Lake Dam including the history of ownership and operations and the petition for a Lake Level Investigation that NHDES is currently conducting. Following that, the meeting will be opened to hear comments from interested parties. Questions and/or written comments may be directed to:

Kent R. Finemore, P.E., Assistant Chief Engineer, Dam Bureau
NH Department of Environmental Services
P.O. Box 95 – 29 Hazen Drive
Concord, NH 03302-0095
(603) 271-0566

or e-mail to Kent.Finemore@des.nh.gov

Robert R. Scott
Commissioner

Dated: January 18, 2019

Transcript of recording of the 2-26-19 Public Meeting related to the Lake Level Investigation for Newfound Lake

NOTE: This transcription of the recording of the 2-26-19 meeting is a best effort attempt to capture the discussion at the meeting based on the poor quality recording taken at the meeting.

Jim Gallagher – …and so we'll do the best we can. Back in April about a year ago there was interest in looking at how we operate the dam, see perhaps if the erosion is impacting the shoreline of the lake, as well as sedimentation in the lake. We (NHDES) took on the Lake Level Investigation. We held a hearing in August of last year (2018), scrambled to get that scheduled prior to the summer residents leaving for the season. We had another LLI going on at the same time, with limited resources we tried to get this going.

The testimony received was largely in support of petitioners' operational plan.
NHDES left the comment period open for several months.
Most comments we got, not all, but most were in support of the petitioners proposal to operate the dam differently than we have for the last 40+ years.
Raise the lake up a little later than usual, starting later, draw the lake down earlier
Most comments we got supported that

For noticing this meeting we tried to get all the addresses around the lake, that proved to be a big challenge, very resource intensive.
We are going to operate the dam differently to see if it has an impact on the erosion
Now talk about history, a little repetitious from the August meeting

Trying to record the meeting, can't hear
Keeping comment period open throughout the year this recreation

Trying to get the word out, but you don't need to be at these meetings to provide testimony, hoping to get more input while we are operating this year

HISTORY – see presentation
https://drive.google.com/file/d/1gFeeXny9YirqnyKXA92HcCOkGjhDOswZ/view (page 13)

PSNH sold to NH for $1, gave $50K for repairs
In the process of acquiring dam and land around the dam, as well as flowage rights
The lake NMHWM was at 2.24, we have flowage rights to 5' above that, we don't operate the dam to that level now but that is the limits of the flowage rights

In the 70's we didn't own the dam, still had the LLI obligation, petitioners asked us to review PSNH operations, their operations were to supply d/s power production
Petitioners wanted to make it more conducive to recreation

Based on inputs, had a deep drawdown, started in March to refill the lake, at Memorial Day hoped to be at 7.24 the height of flowage rights

Later in summer at Labor Day start the drawdown to get to winter levels at Columbus Day

LLI requested, desire to modify operations because of in-lake flooding, developed a new plan to operate at 6.1 on gage, drawdown, hold at 3.5 in the winter instead of 2.24, and try not to exceed our flowage rights in the spring

Operated like that for a while, another LLI was requested
At that time we developed this curve we've used for 40+ years
6.0 by Memorial Day, lower lake over the course of lake, minimum flows/evaporation, etc.

ATTENDEE: In 50 years the problem was because of the dropdown, in the old days it flushed out the sediment at the, why was it changed from 2.5 to 3.5 in the winter. Then weed growth, filled delta with sand

JG: I don't know – might have been other reasons, some have dug wells that are. F&G has an issue with going below 3.5 in the winter

Over time the fluctuation of drawdowns. It's been 40 years +/- since we've reviewed operations
We decided to accept this LLI request/petition because it has been so long and worth investigating
We do the drawdown to protect the shoreline and shoreline structures
Provide room to control flooding in the lake when we have spring runoff
Recreation is the prime reason for the lake so we try to get to full lake by Memorial Day

Have issues with d/s flooding when release from dam is over 1000 cfs, we try to keep it to 750 cfs but in Mother's Day flood flows were much higher than that

Also have hydros downstream in Bristol, those plants fund cost of the operation and maintenance of dam, take their constraints into consideration, try to keep it in their range up to 220 cfs, it's a consideration but not a driving one

3.0 on gauge can still run a flow, no relationship, never seen Newfound Brook go empty,
No but it gets dry

ATTENDEE: Many times this summer, less than 60 cfs in the Newfound River, can walk across it. Fish are still there, what to flows necessary to maintain fish?

JG: June 80-120 cfs
F&G allows us to violate those operations during periods of severe drought
Not going to dry it out

ATTENDEE: Is the plan to gradually get to 2.5? Since 1982, minimum drawdown level is 3.5

In the 70s and prior to that, it used to go to 2.5
F&G has concerns about us getting below 3.5

Rick Van der Pol: spoke about documented erosion in different places around the lake

JG: doesn't understand entirely the relationship between lake levels and erosion on the shoreline
Wake boards? Boats have gotten a lot larger, wake boats

ATTENDEE: thinks that the wind blown waves are more of a problem than boats

JG: Concerns that we're hearing, operating largely as recommended

ATTENDEE: If the water wasn't this high, then there will be 10-15 feet of beach
Problems with boats are related to lake levels

JG: Have already made a decision to go ahead (with the interim operating plan),

ATTENDEE: was anyone notified other than the petitioners,
Can't believe that someone petitioned and so we do just
We're here today just to be publicized, this isn't right, If they've already made their decision,
ATTENDEE: George – please let them speak
ATTENDEE: Government agency shouldn't be acting on just one meeting

Rick – Feb of last year, 12 diff stakeholder groups attended the meeting, data presented enough of concern about erosion – what's best for the lake
Identify lake stakeholders,
This is part of an investigation
This is a test (interim plan), because we've got erosion concerns, documented erosion, lakeshore studires, monitoring changes with erosion,
Not a big change that is proposed

ATTENDEE: It's the fall and winter, 1" of water raises the lake even withoiut the dam, bridge abutments control the issue
It's the wintertime levels and drawing it down, won't have weeds growing around the lake

JG: We have tried to publicize it the LLI hearing

ATTENDEE: some just heard about this meeting but weren't there for the Aug meeting,

JG: it's a struggle, 4000+ property owners abutting lake,
Not just based on the petition, looked at erosion / ast practices/ F&G input, try an interim measure, more likely to get further data and testimony
On NLRA website for presentations, data so far is on their website

Spring look at profiles of incoming flows

ATTENDEE: The Stakeholders? Who are they?
ATTENDEE: F&G, all three active selectboards, theyhave a lot of other people

Looking at Interim Operations Graph

JG: Proposed to us was a winter time drawdown to 3.0, F&G had an objection to that lower than 3.5
Operate to the red curve , in the summertime we would keep it 0.5' lower than the levels (6.0) since 1982
Then on labor day draw down to 3.5 by October

Here today to get that word out, other than direct mail to 4,000, looked for gaining addresses, real challenge
In October we get more runoff (from the watershed) as vegetation dies down
F&G is happy with drawdown
Round whitefish is endangered they need the depth to spawn
The boating part is going to be an issue, fall boating in particular

F&G likes it because we finish by October, amphibians benefit from that

Lake trout spawn around Halloween, 3.5 would be better for that
Loons are a challenge, other guides, high water levels during ice out, when loons are looking to nest.
F&G not as concerned about that

Last year we had two 50 year events, do we lower the levels in anticipation if we can
Not a lot of notice, weather forecasts only good for up to 72 hours before, can make some operations from Concord

ATTENDEE: Silting due to development?
JG: Watershed is very flashy, challenge to operate
DES uses a model to forecast rain and snow pack
On that proposed operating curve, hoped that the fall rain events could be offset by the early drawdown, hoping that as much pre-storm drawdowns would help, in October/November we were only dropping a day before

Stayed high until close to Dec 21 storm event, hoping to see on the monitoring stakes the differences in the spring of 2019

ATTENDEE: Road associations? Others we can reach out to?
JG: DES has concerns that we haven't heard from some folks, hoping to hear at some point

ATTENDEE: Tough times (for getting the word out), local newspapers don't work, more people – how to reach others

JG: we have been long before the petition, heard from lake shore property owners, heard from shoreline structure owners, can't fix them (water doesn't get low enough),
JG: with this interim plan could be an opportunity for folks to do shoreline maintenance this year
Doing this through CY 2019, 2020 will be based on people's experiences

ATTENDEE: Boats, 6" lower lake levels with docks, prime time to do maintenance, still need a wetlands permit yes, we have been talking to DES (Shoreland Protection?) Darlene was at the Feb 2018 stakeholder meeting,

Boat levels - how will effect moorings close to shore?
Could be an issue? Cant move mooring without state approval
Permit process? Do a trial where you don't need a permit
Open up a huge can of worms
Mooring field – in August we are typically below that level, May level is lower
The level in August is higher than what we normally do

ATTENDEE: So concerned about boats not having enough water, but we're losing the beaches, seilt incoming, all our cottages are going to fall in the water, take your big boats to Winnipesaukee, have to protect the lake

ATTENDEE: Boating may not be the issue? Ancilliary issue
JG: Trying to get the word out, welcome ALL comments
Intending to have additional meetings to hear their experiences with others?
July time frame, Maybe again in October?

ATTENDEE: I'm In charge of fire suppression, 1/3 of lake in Hebron, dry hydrants may be affected with lower drawdown, need to test
Or are they frozen up? Wants to see how it will effect fire suppression

JG: Shared chart with Interim Operating Curve and last 30+/- years of water levels

ATTENDEE: Suggest probably PSA one page explanation, available to each stakeholder groups, ask chairs to make that available,? Schoold board meetings, others? PSAs all over the place?

ATTENDEE: This is a great chart, maybe a lot of people haven't seen it
Postpone the trial to next year, get the word out, and this can be done later?

JG: We took this approach for Waukeewan, others?
Drawdown – we don't own that dam, came up with interim operating plan, lower, septic issues? High lake levels, got a tastes great/less filling response (half and half)

Rick: has analyzed the data, maybe a little biased?

JG: (DES has) One operator, for this lake, Squam, Winnisquam, some others

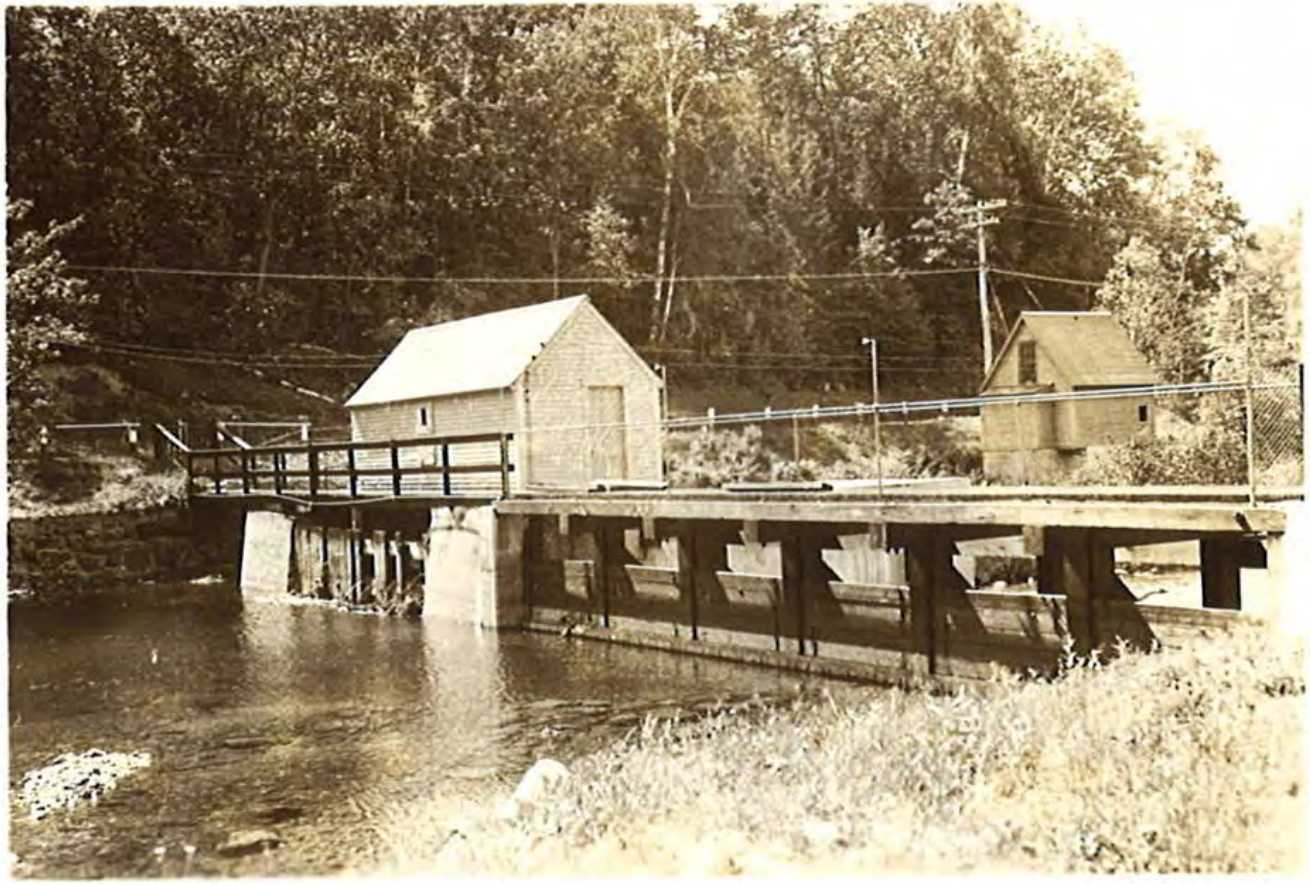
Sam is one of three operators out of Concord if we are getting rain in Newfound
Worst fear, envisioning the November event that we saw, we had many lakes to monitor and operate
Had issues where the big storms come and there is nothing released from dam
None of the other lakes recharge like Newfound, that's why we automated this dam
Real challenge to lower the lake, only have limited notice
Spike in December, tried to drop it ahead of time

NEWFOUND LAKE
INTERIM LAKE LEVEL MANAGEMENT PLAN

NEW HAMPSHIRE
DEPARTMENT OF
Environmental Services
Water Division
Dam Bureau

James. W. Gallagher, Jr., PE
Chief Engineer

HISTORY AND WATER RIGHTS



1848 – dam constructed by Bristol Water Co.

1934 – owned by Newfound Power Co.

1938 – owned by PSNH

1973 – PSNH sells dam to State of New Hampshire for $1 plus $50k for needed repairs

State acquired all land and water rights from previous owners:

- 2.24' NMHWL
- Fee Ownership or Flowage Rights to 7.24'


Height = 12 feet
Length = 120 feet
Three 6' x 6' gates
11 stoplog bays
DANGER
DAM
DANGEROUS
CURRENTS
STAY AWAY
FROM DAM
11/22/2016

WATER MANAGEMENT HISTORY

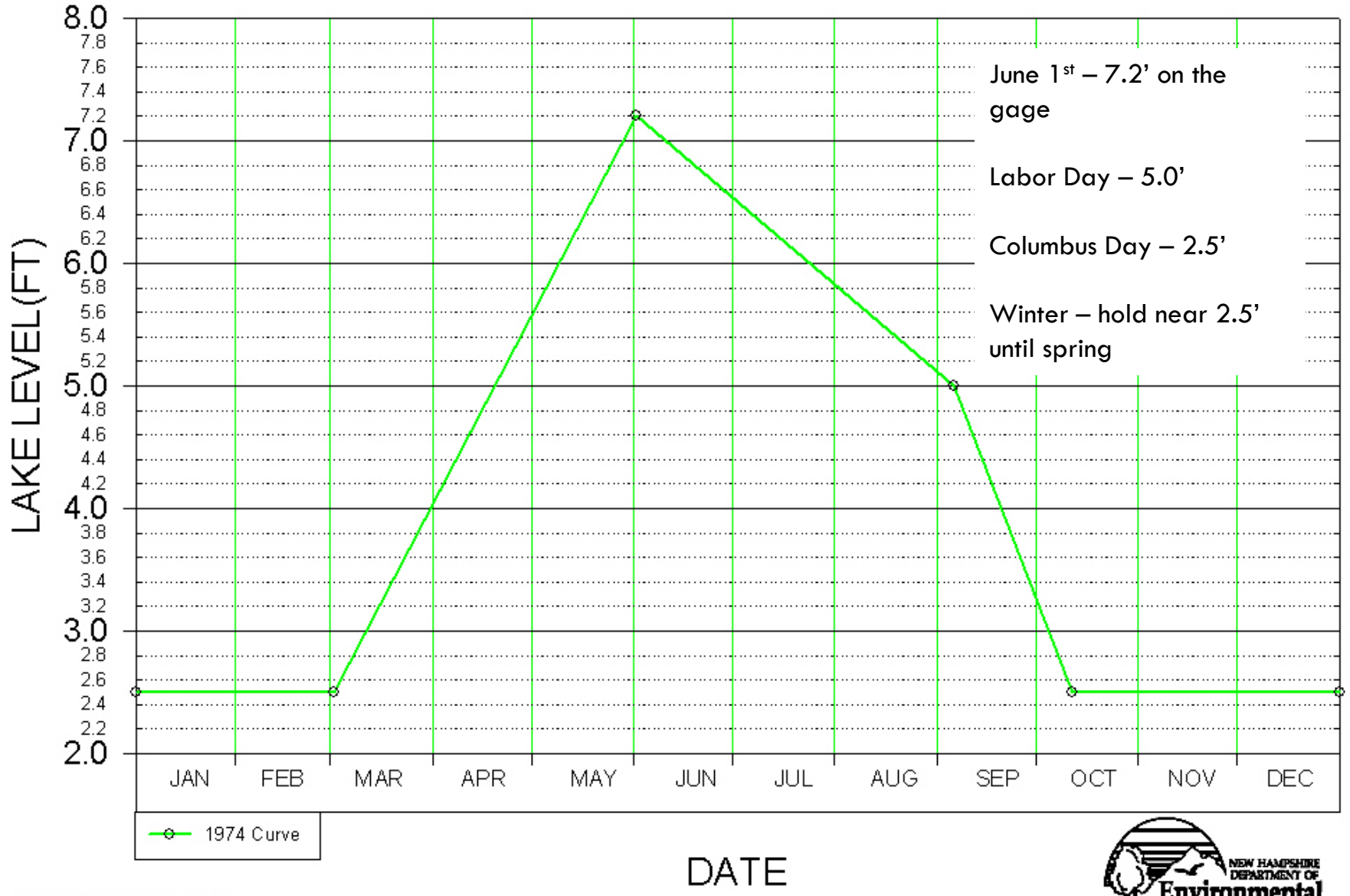
In 1971 the State received a petition requesting a review of PSNH's water management practices. The petition indicated that water withdrawals from April through August caused the lake to drop up to 6 feet in some years.

The petition sought to change management to conserve spring flows to allow for higher levels from April through September.

The State conducted a public hearing in 1974.

ELEV. 0.0' ON GAGE = 581.88' NGVD ELEV.

NEWFOUND LAKE



June 1st – 7.2' on the gage

Labor Day – 5.0'

Columbus Day – 2.5'

Winter – hold near 2.5' until spring

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

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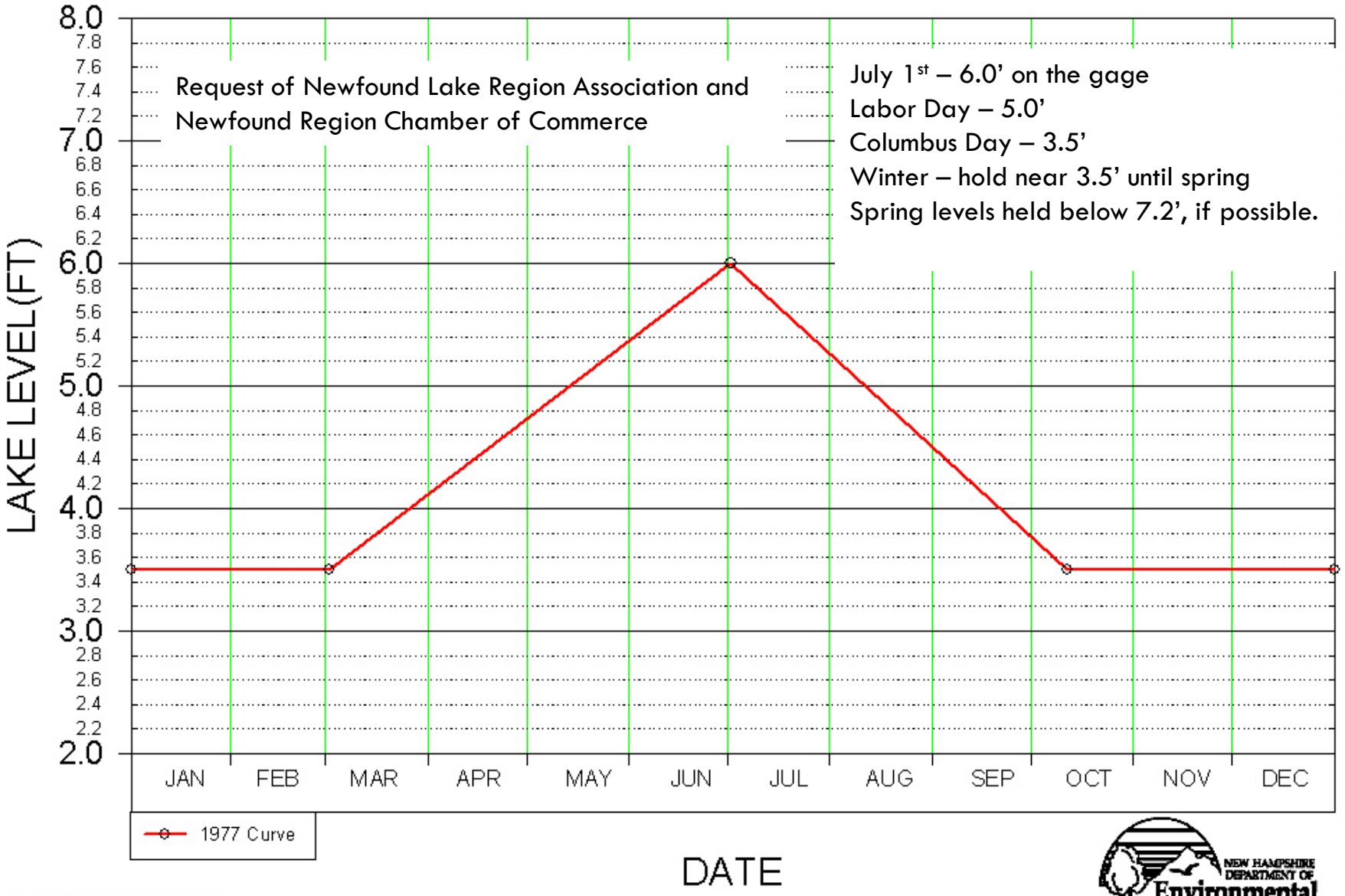

Request of Newfound Lake Region Association and Newfound Region Chamber of Commerce

July 1st – 6.0' on the gage
Labor Day – 5.0'
Columbus Day – 3.5'
Winter – hold near 3.5' until spring
Spring levels held below 7.2', if possible.

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

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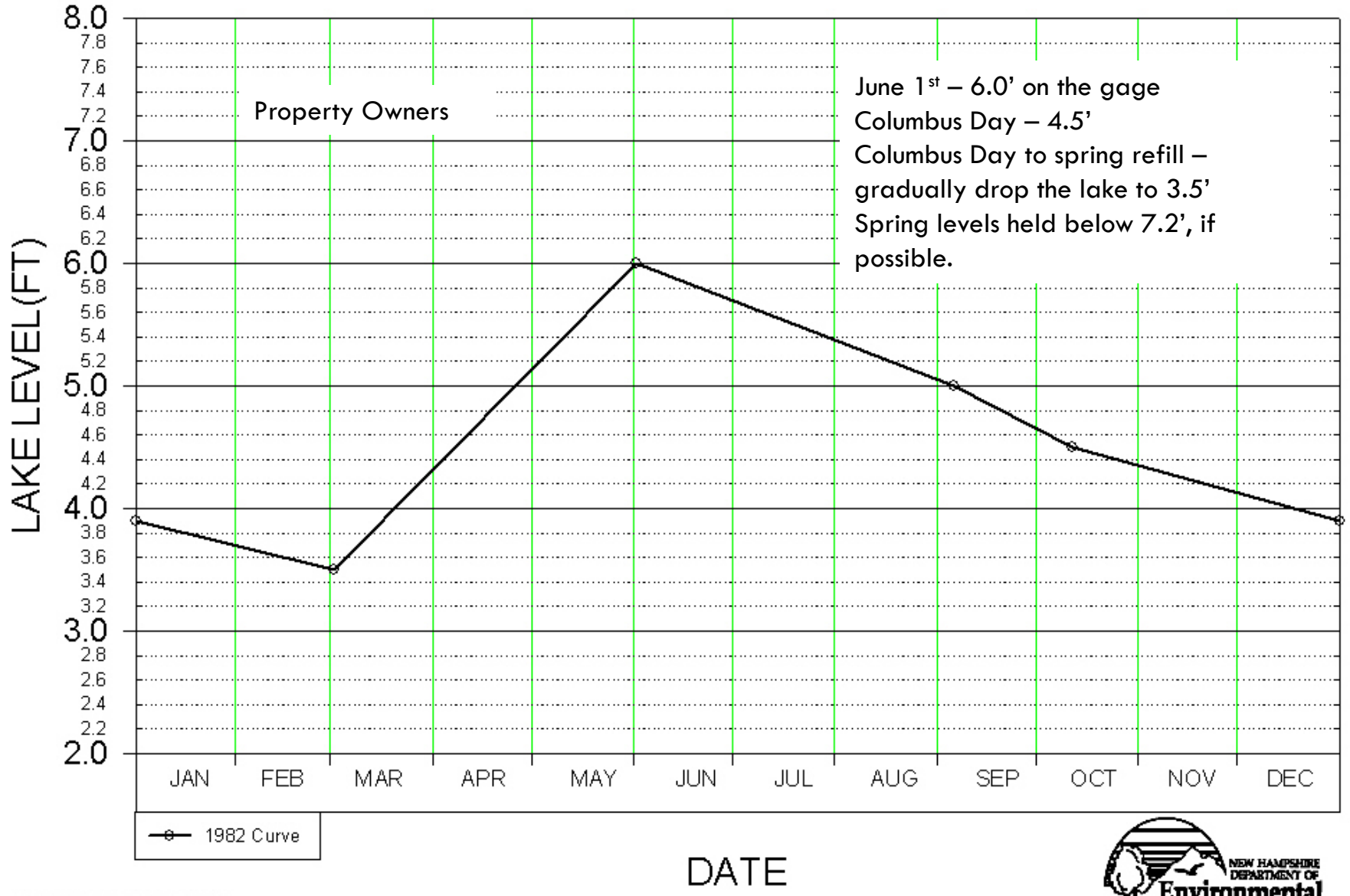

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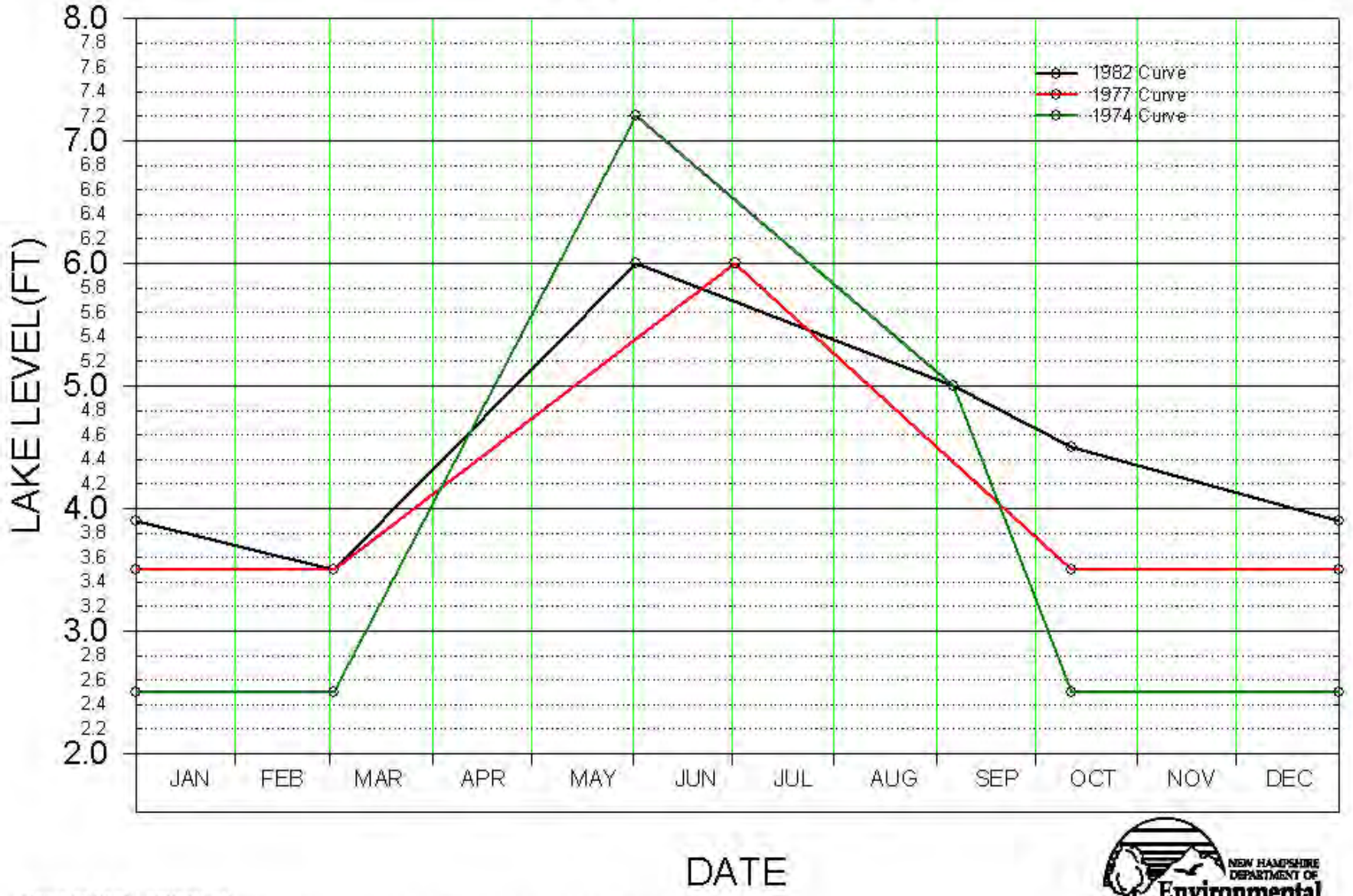

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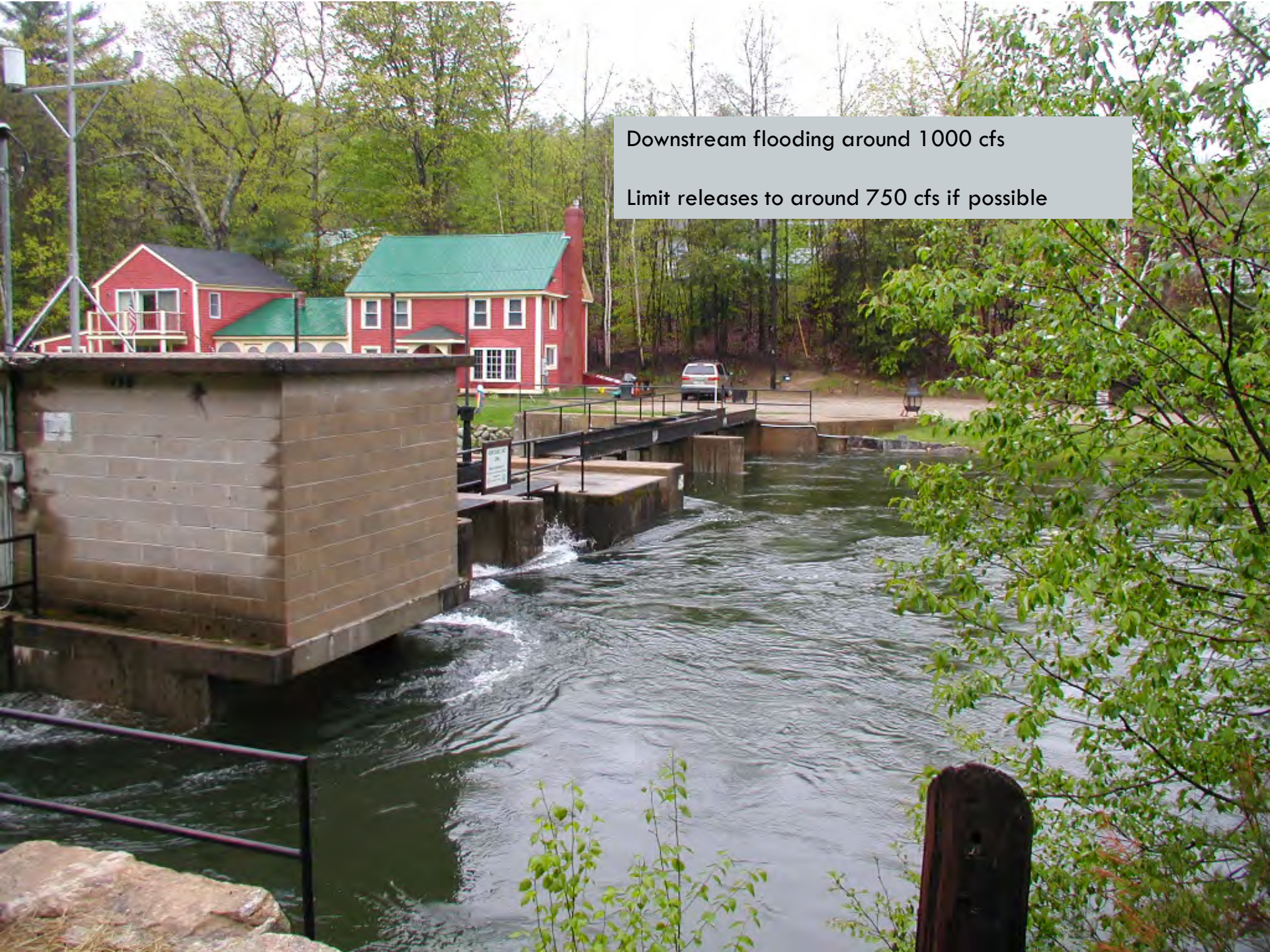
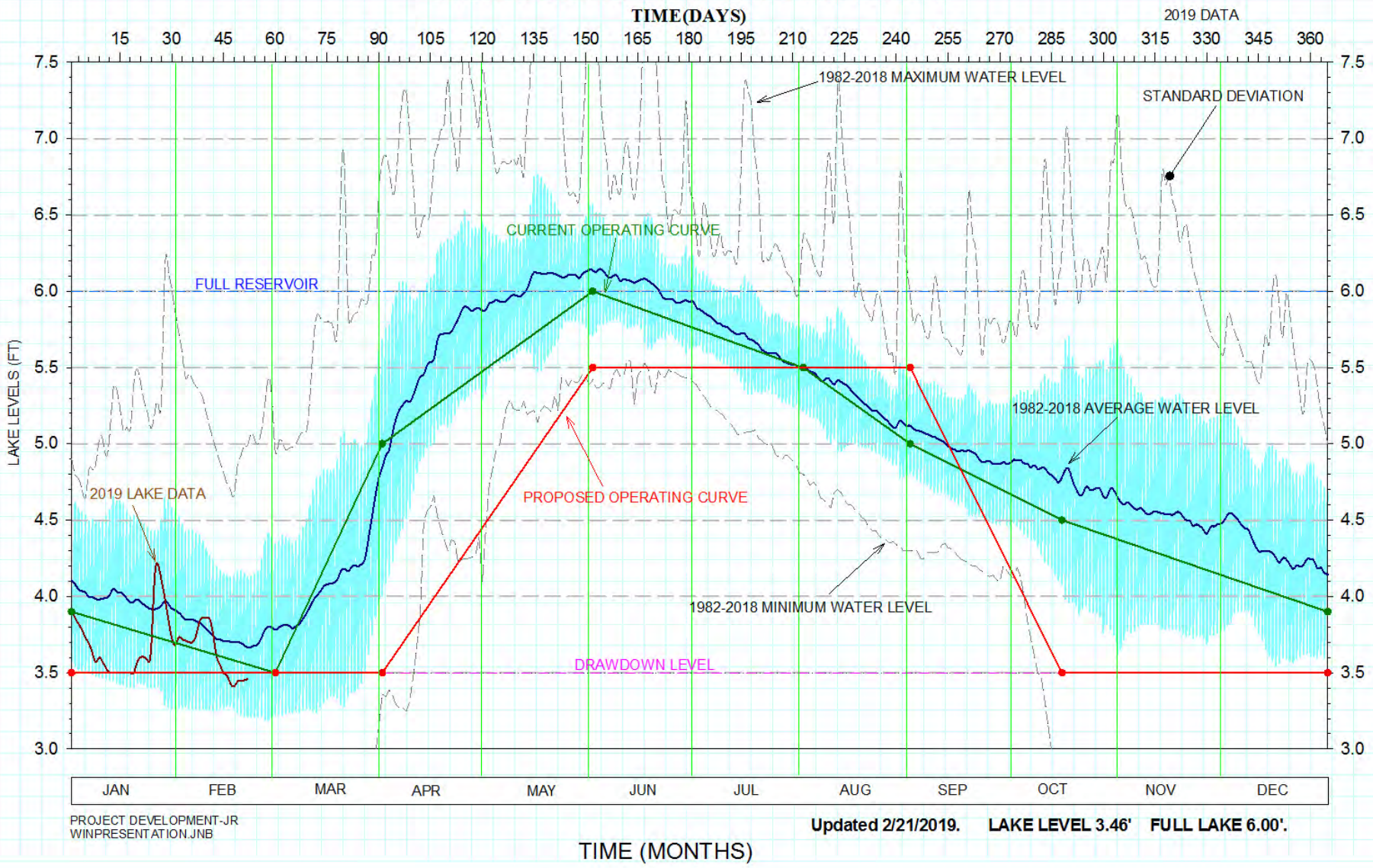

Downstream flooding around 1000 cfs
Limit releases to around 750 cfs if possible


Minimum Flow = 60 cfs
Optimum Flow = 180-220 cfs
Maximum Flow = 280 cfs
05.11.2017


Minimum Flows
June = 80 cfs
July = 60 cfs
August = 40 cfs

NEWFOUND LAKE LEVEL DATA

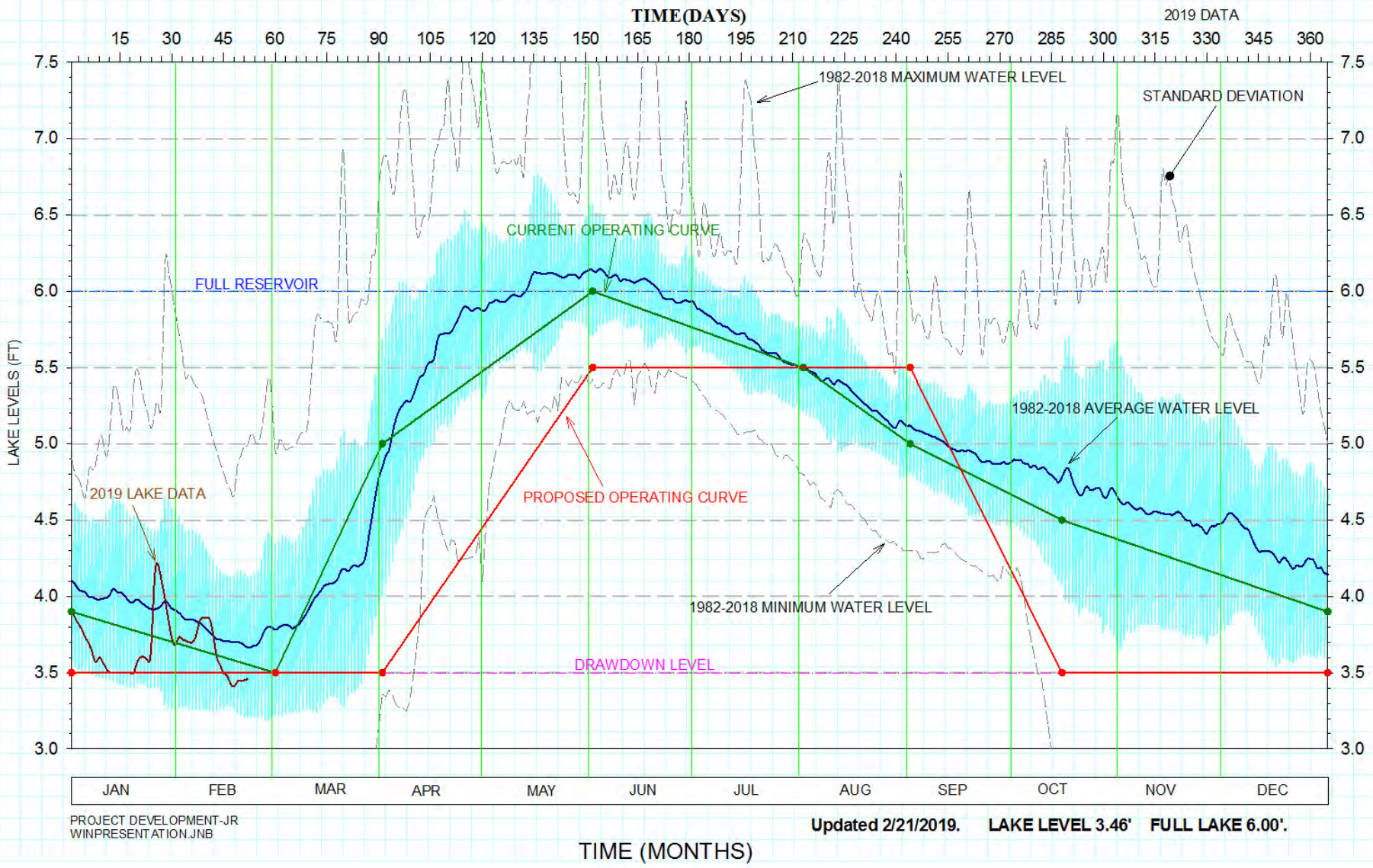


PROJECT DEVELOPMENT-JR
WINPRESENTATION.JNB

Updated 2/21/2019. LAKE LEVEL 3.46' FULL LAKE 6.00'.


MERCURY
206

NEWFOUND LAKE LEVEL DATA



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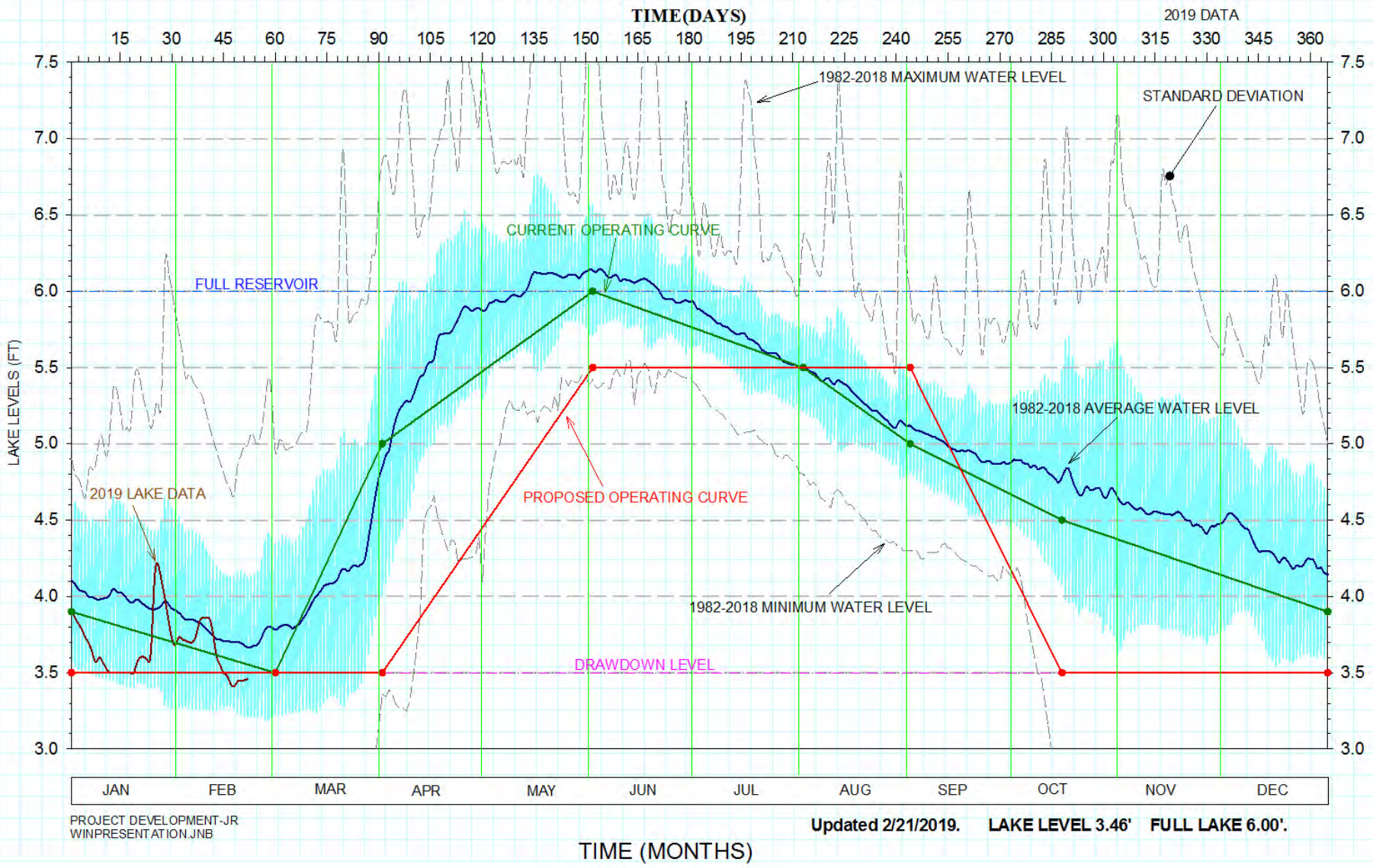

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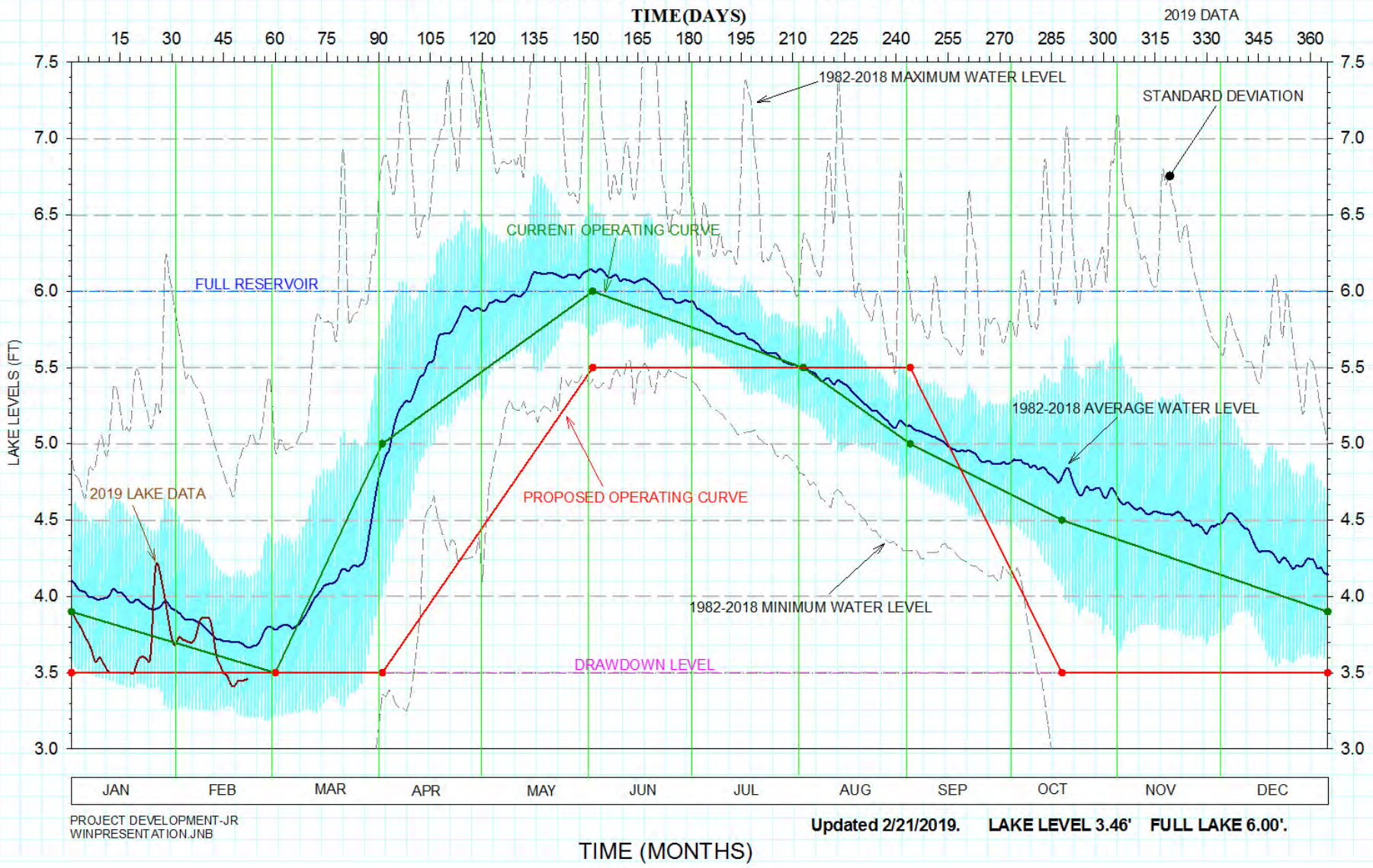
Cabela's

NEWFOUND LAKE LEVEL DATA



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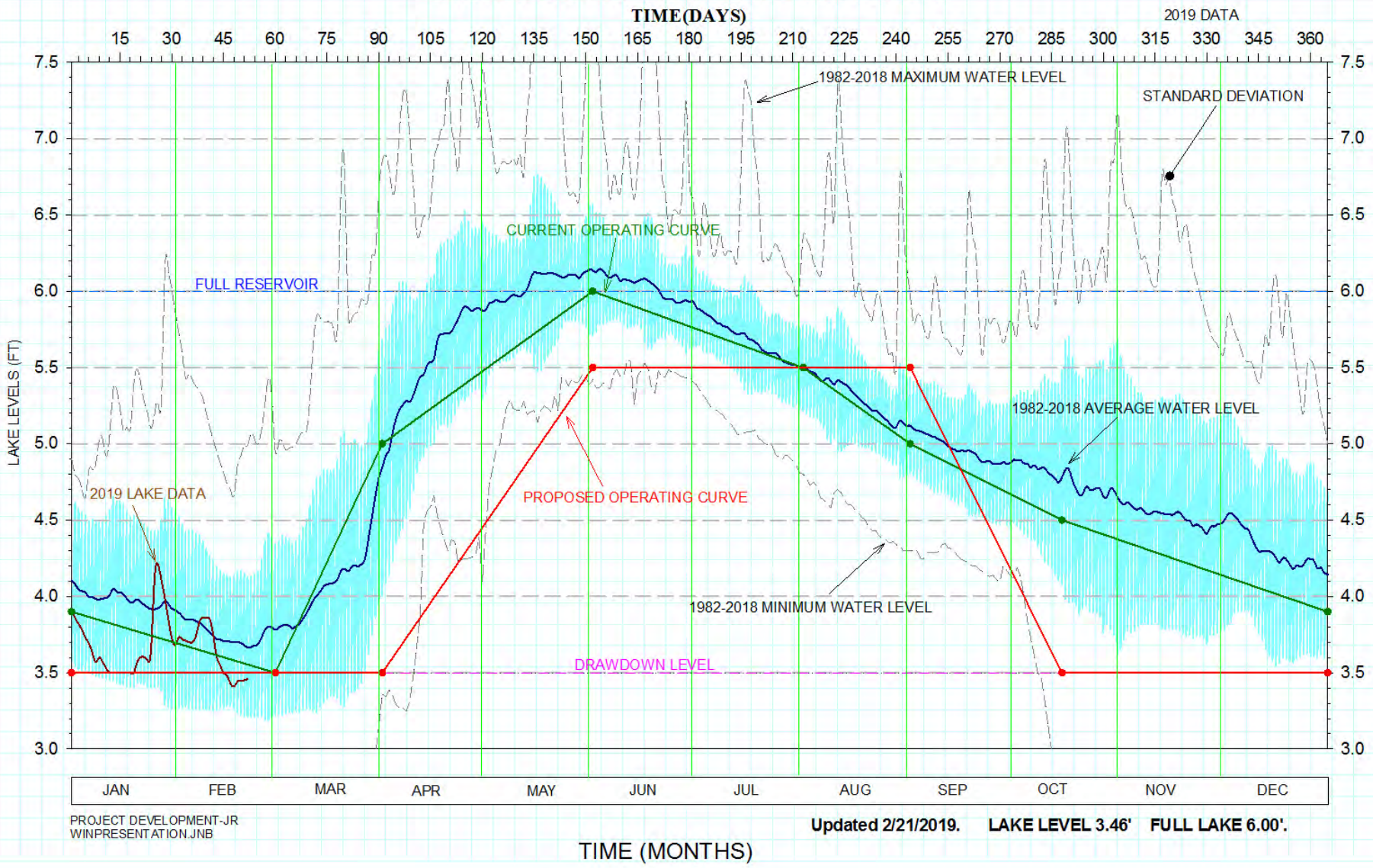

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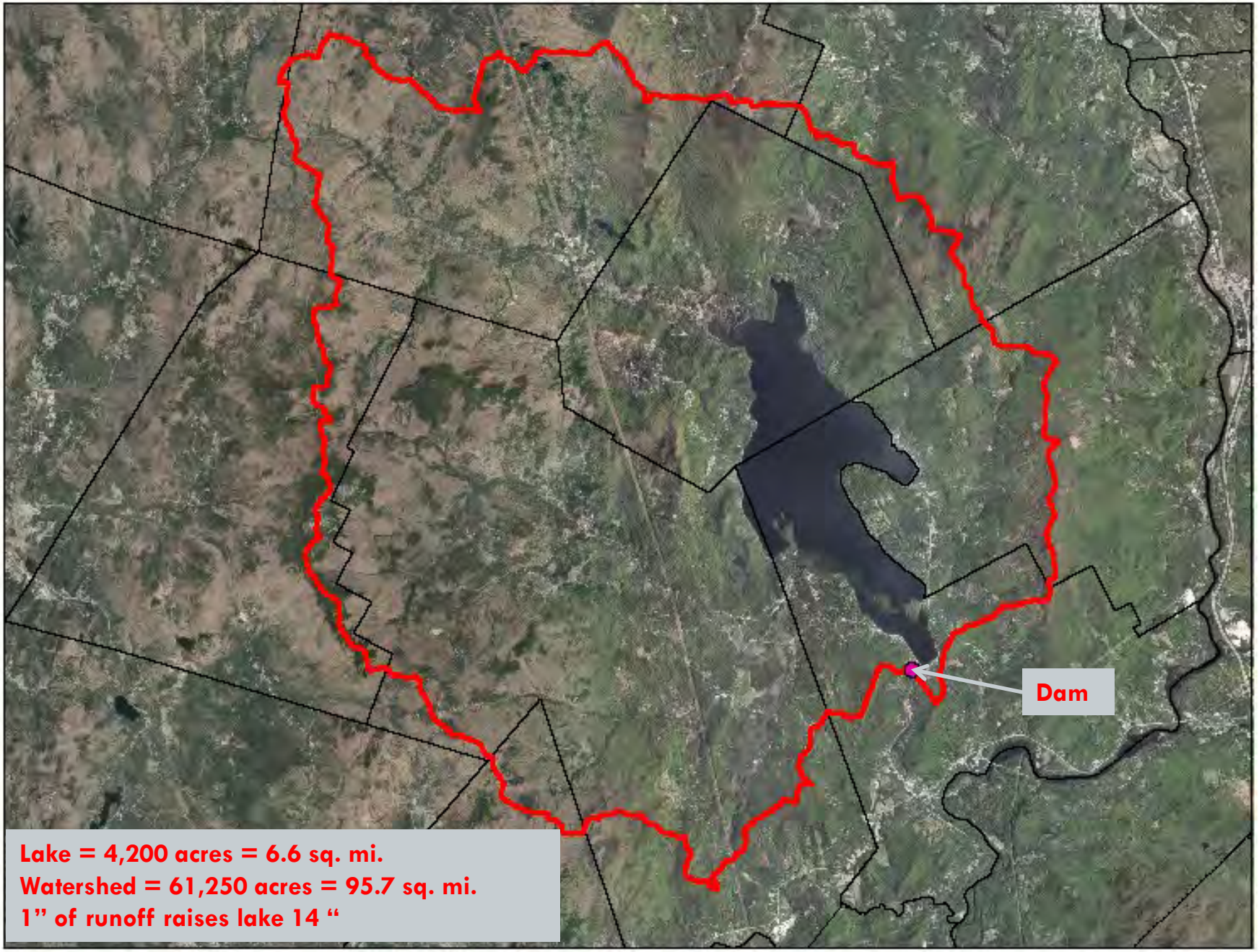
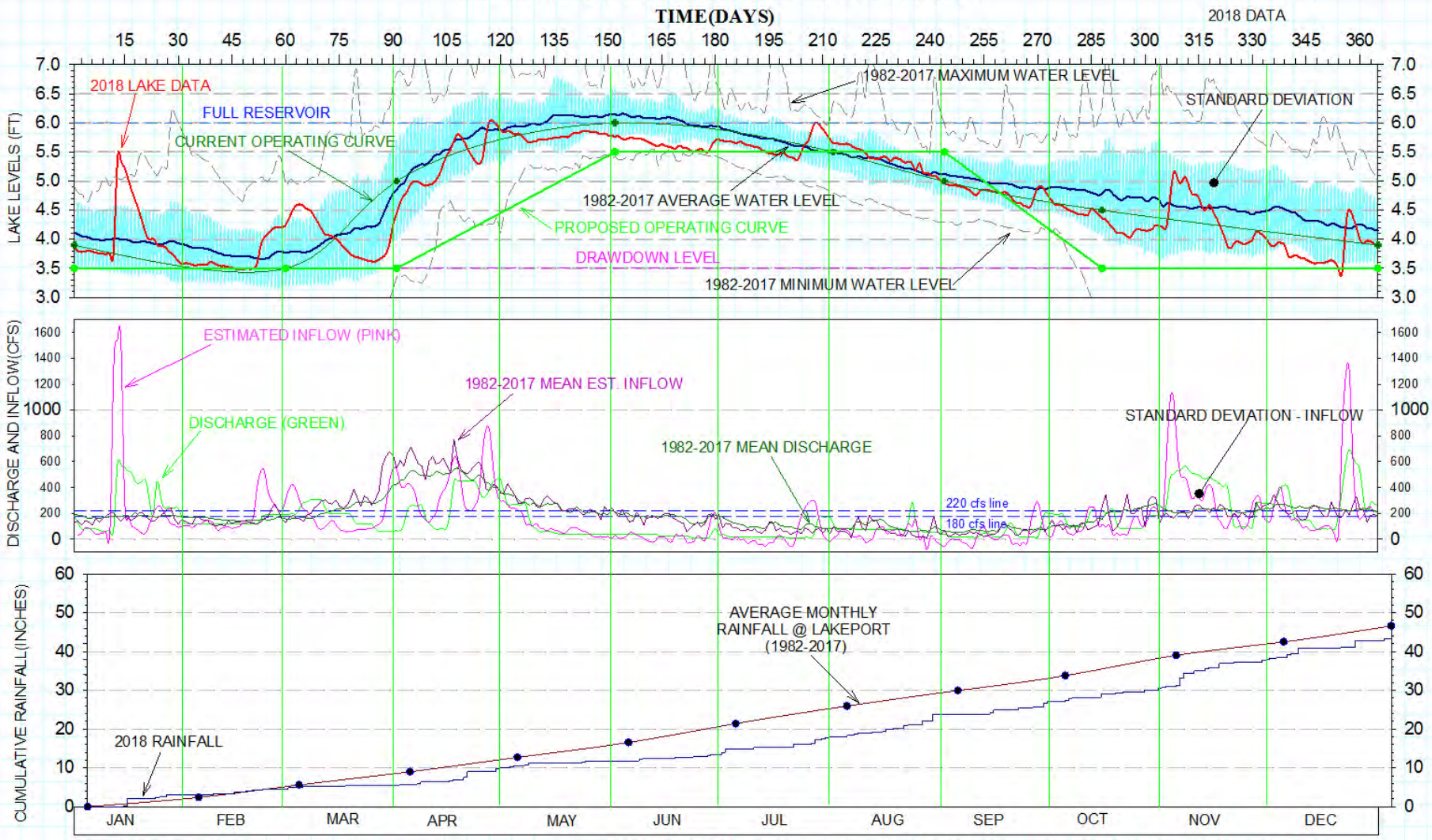

Dam
Lake = 4,200 acres = 6.6 sq. mi.
Watershed = 61,250 acres = 95.7 sq. mi.
1" of runoff raises lake 14 "

NEWFOUND LAKE LEVEL DATA



PROJECT DEVELOPMENT-JR
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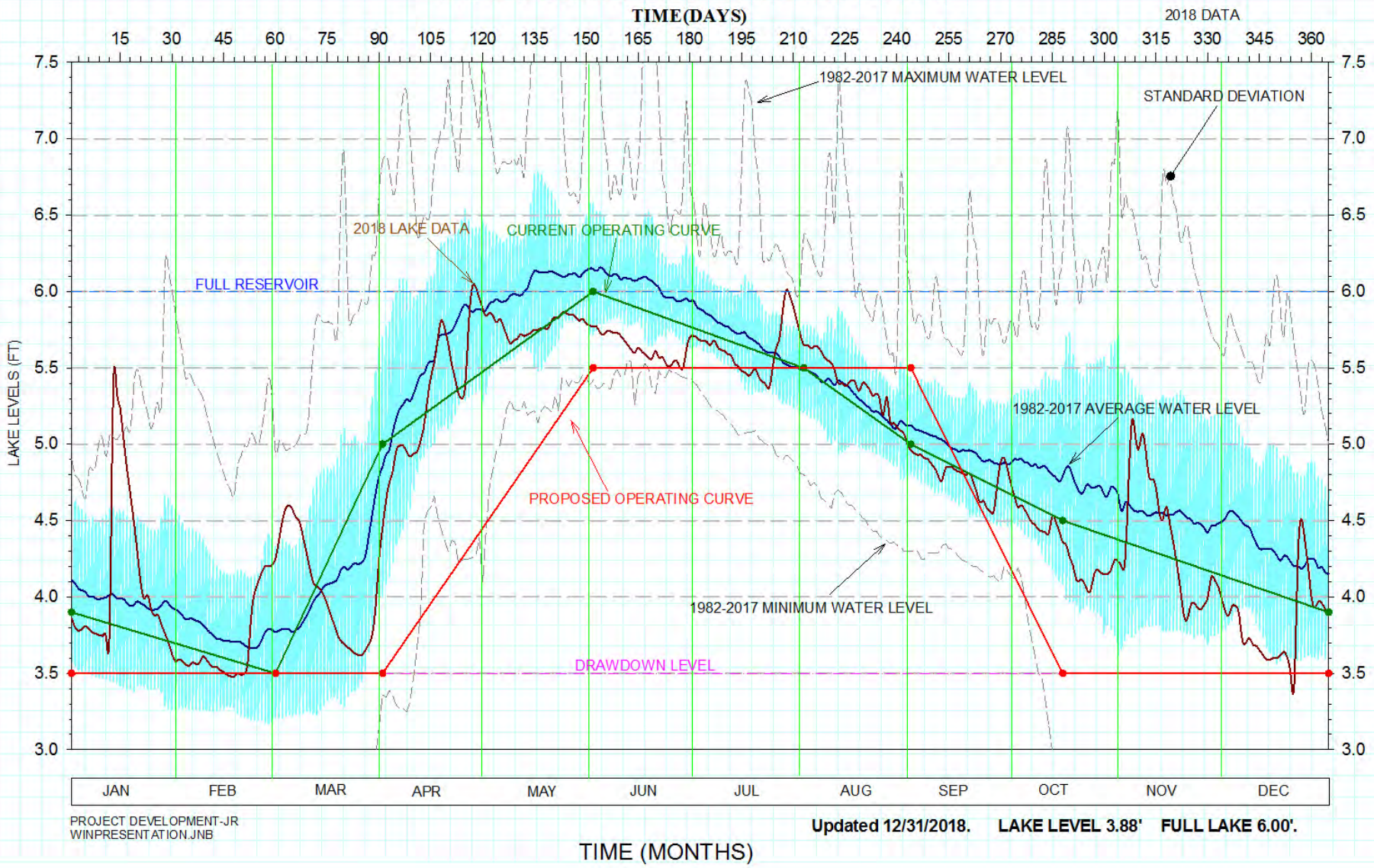
Updated 12/31/2018. LAKE LEVEL 3.88' FULL LAKE 6.00'.

NEWFOUND LAKE LEVEL DATA



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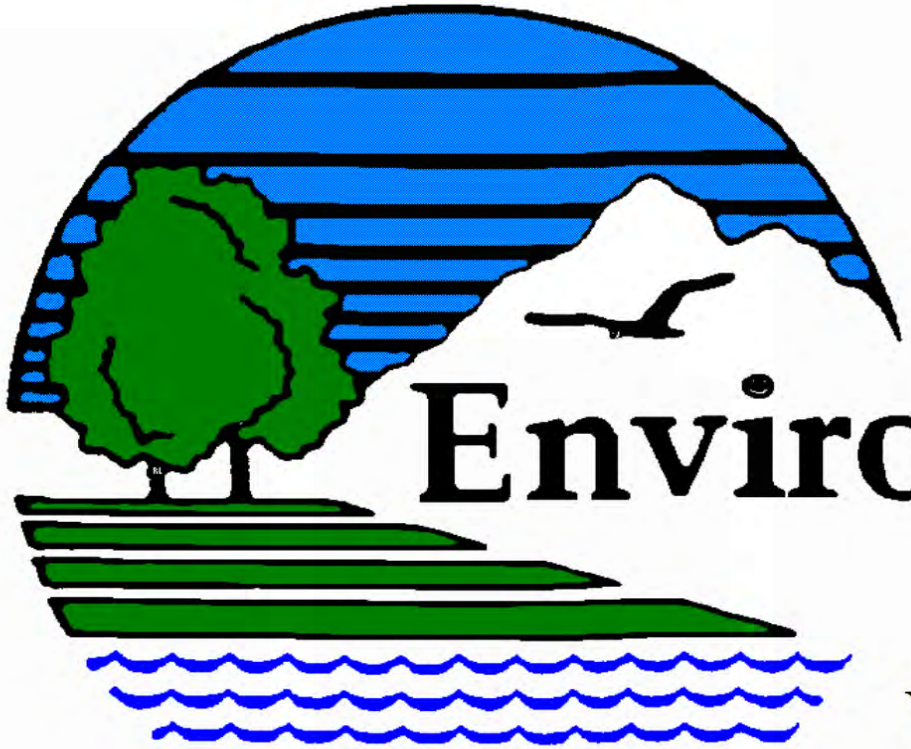

NEW HAMPSHIRE
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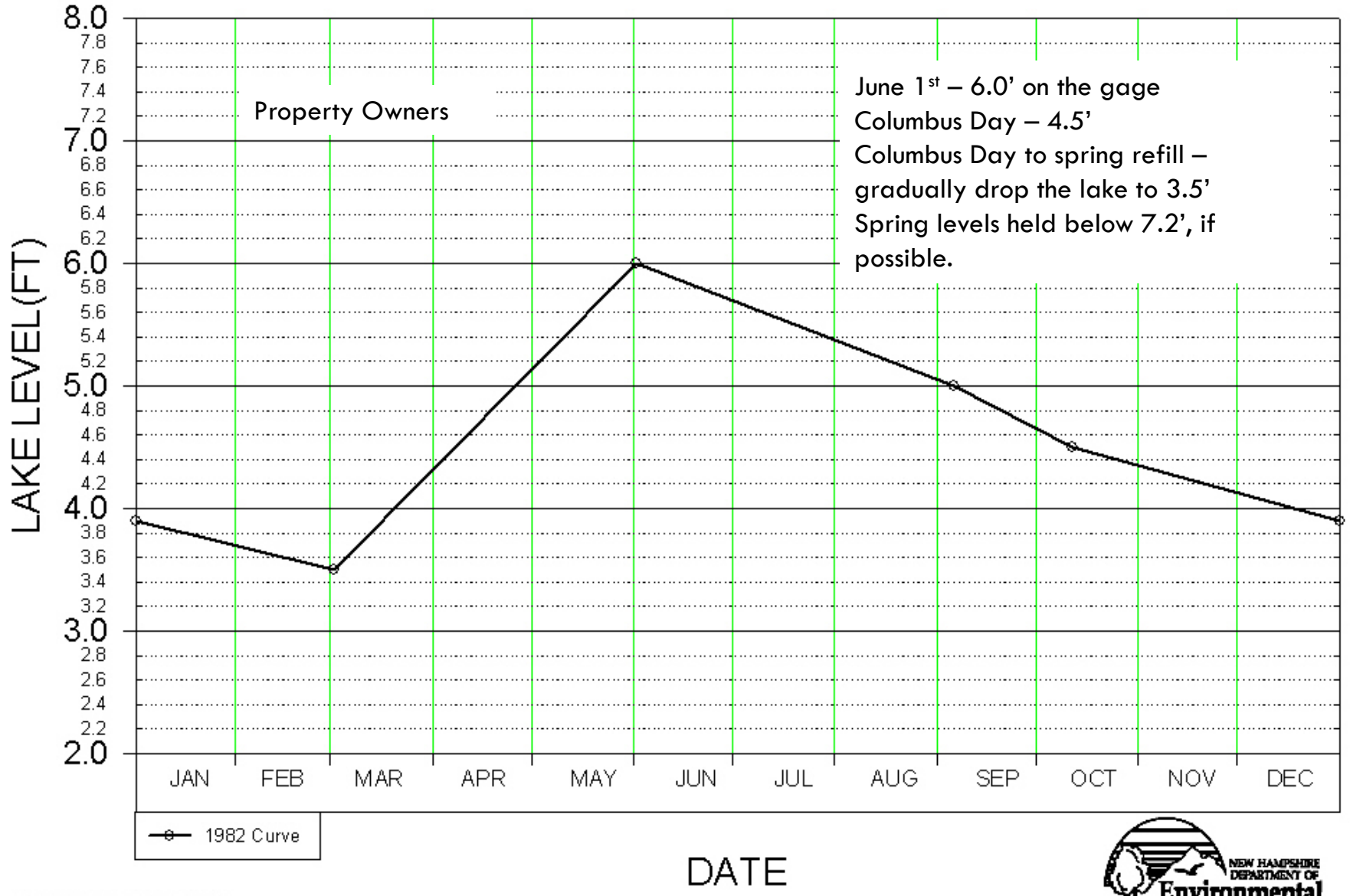
NEWFOUND LAKE



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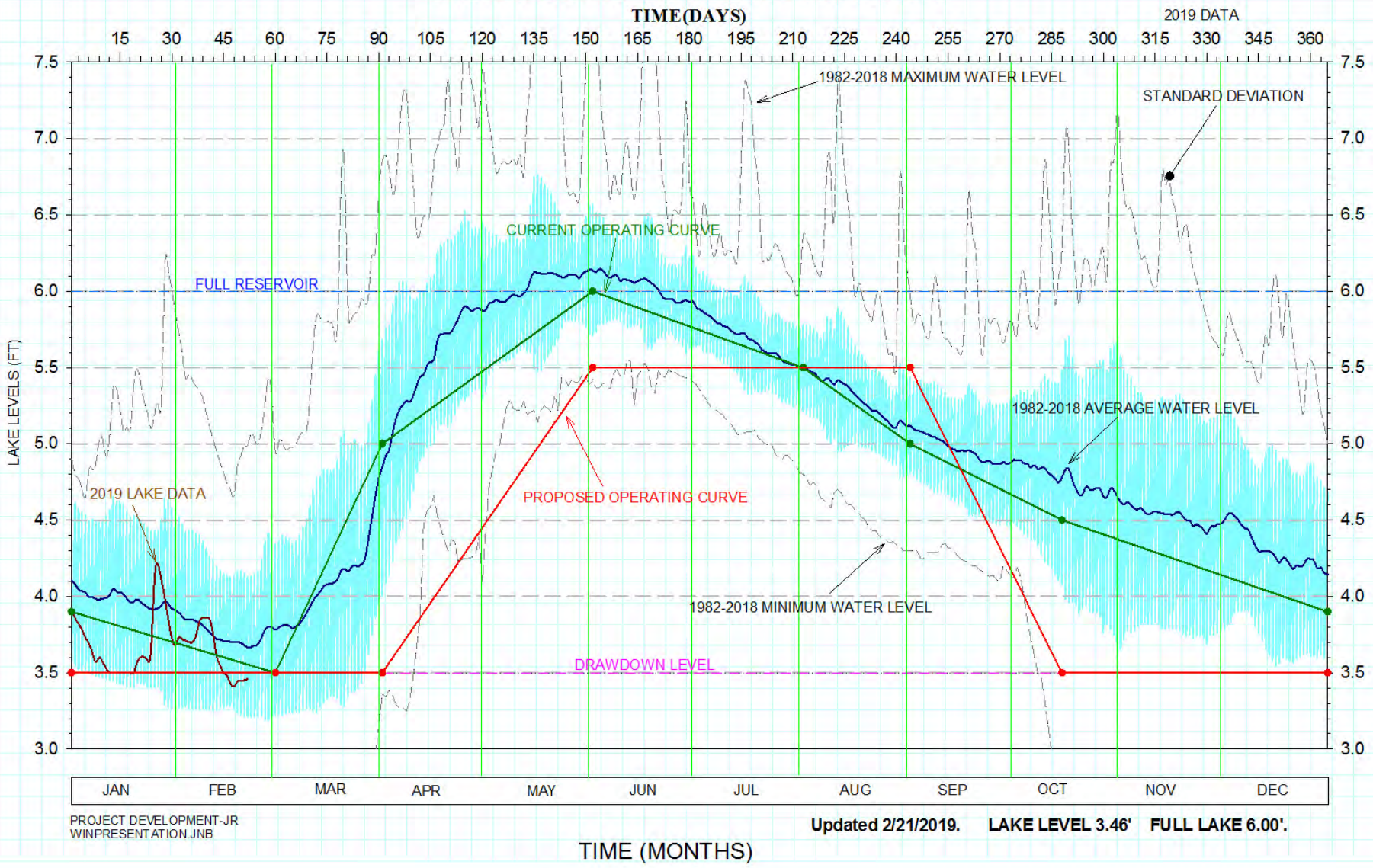
NEW HAMPSHIRE DEPARTMENT OF Environmental Services

NEWFOUND LAKE LEVEL DATA



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