

Attachment A - MRBA Match Funding Resolution

Resolution
Of
Michigamme River Basin
Tax Increment Financing and
Water Improvement Authority

WHEREAS, The Michigamme River Basin Tax Increment Financing and Water Improvement Authority of Republic Township, Marquette County, State of Michigan will fund \$104,330 towards MDARD Rural development grant for the Republic Dam project.

WHEREAS, having the River basin level maintained at a particular level during the spring and summer season ensures the safety of the boaters, anglers and swimmers. In addition to maintaining the property values of those that live on the river, it also provides a much-needed boost to area business.

WHEREAS, Public ACT of 2008, State of Michigan provides the Michigamme River Basin Tax Increment Financing and Water Improvement Authority to fund and receive grants for the improvement of the water district.

THEREFORE, now be it resolved that the Michigamme River Basin Tax Increment Financing and Water Improvement Authority of Republic Township, Marquette County and State of Michigan does hereby approve \$104,330 towards MDARD Rural Development grant for the Republic Dam project.

On a motion by: *Chuck Hurst*

Supported by: *John Ulrich*

Roll Call vote:	yays:	nays:	absent:
James Brennan	X		
Norrine Maki			X
John Ulrich	X		
Chuck Hurst	X		
Maggie Shepherd			X

Attachment B - MRBA Organizational Background Information

Michigamme River Basin Authority/TIFA

279 Kloman Ave PO Box 338 Republic, MI 49879

906-376-8827 republictownship@gmail.com



August 10, 2018

James Kochevar
Cleveland Cliffs Mining

Dear James Kochevar,

The Michigamme River Tax Increment and Water Resources Improvement Authority was formed by Republic Township under Public Act 94 of 2008 in late 2009 to create a stable water level.

The Authority's mission is to promote and maintain the inland water resources of the district by planning and fostering responsible economic development and fiscal responsibility. In addition, it is also to create a stable water level in the basin to provide for enhanced recreational opportunities and to preserve property values.

To achieve the water level, the Authority has purchased the Republic Dam and had re-fabricated gates installed in the dam as required by the Michigan DEQ. This gave the Authority an Operating Permit through 2022 for seasonal use. The Michigan DEQ and DNR have agreed to work with the Authority to move to a permanent spillway with fish ladder. The cost, of course depends upon the design (\$600,000 - \$800,000).

We hope to accomplish this in three phases. First, to pay off the \$20,000 mortgage/lease by October 1, 2018. Second, to secure a loan from Range Bank to pay for the re-fabricated gates as soon as the other mortgage is paid off, and last to work with the DEQ and the DNR to apply for grant funding for a permanent spillway with fish ladder. Once completed this will serve Western Marquette County with a stable water level for recreational and economic opportunity for the future. It is also important to note that the water has been impounded for over 100 years, the Authority's hope is to preserve the water level for future generations.

We thank you in advance for your kind attention to this matter.

Sincerely,

James Brennan, Chairperson
Michigamme River Basin Authority/TIFA



Attachment C - Project Property and Adjacent Property Information

3
GNT



8 0 2 8 0 6 8
Tx:4016702
6/15/2018 3:30:00 PM

STATE OF MICHIGAN
MARQUETTE COUNTY
06/15/2018
2018R-05816



REAL ESTATE TRANSFER TAX ★
★
★
\$55.00 CO ★
\$375.00 ST ★
TTX#4016702 ★

2018R-05816
CARLA A L'HUILLIER
REGISTER OF DEEDS
MARQUETTE COUNTY, MI
RECORDED ON
06/15/2018 3:47 PM
PAGES: 3

TREASURER'S OFFICE MARQUETTE COUNTY, MI
6439C Required by Sec 135, Act 206, 1893, amended
I hereby certify that all taxes which by law are required to be returned to this office, have been fully paid for the five years preceding the date of said instrument for the lands described herein. This certification does not apply to taxes in the process of local collection, board of review, PRE denial or tax tribunal.
ANNE GIROUX, TREASURER / 6/15/18 sue

WARRANTY DEED

The Grantor, Republic Mountain Lake, LLC, a Michigan Limited Liability Company, whose address is 599 Washington St., Ishpeming, MI 49849, CONVEYS AND WARRANTS to Michigamme River Basin Tax Increment Financing and Water Improvement Authority, a Michigan municipal body organized under Republic Township, whose address is P.O. Box 338, Republic, Michigan, 49879-0338, the following described premises situated in the Township of Republic, County of Marquette and State of Michigan:

Part of Government Lots 1 and 8 of Section 18, Township 46 North, Range 29 West, Republic Township, Marquette County, Michigan, described as:

Commencing at the Northwest corner of Section 18; thence S01°09'14"W, 1099.44' along the West line of said Section 18; thence East, 1241' to the Centerline of County Road 601 and also the POINT OF BEGINNING; thence N48°20'57"E, 387.48'; thence S41°39'03"E, 150.00'; thence S48°20'57"W, 456' to the Centerline of County Road 601; thence Northwesterly along said Centerline 171' to the POINT OF BEGINNING, containing 1.40 acres more or less and subject to restrictions, reservations, rights-of-way and easements of record. This description includes any part of any street or alley adjacent to the premises, together with all improvements and structures, hereditaments, appurtenances, privileges, and water and riparian rights.

This legal description includes the entirety of the Republic Dam, State ID # 00579, located in the Michigamme River.

Together with a forty (40) foot wide permanent, non-exclusive, perpetual, appurtenant easement for access, operation, inspection, maintenance, repair, improvement replacement or demolition of the Republic Dam, over and across the following described parcel of land in Government Lot 1, Section 18 and Section 7: Beginning at the Eastern boundary of the land described above in Government Lot # 1, Section 18, and being hereby conveyed; thence approximately 350 feet East. (encompassing an existing, unimproved, two track road) to the centerline location of that road formerly known as Co. Rd. LLK, now labeled Willow Drive, running between the Michigamme River and the Republic Mine Pit; thence Northerly approximately 5900 feet along the centerline of Willow Drive to its intersection with Co. Rd. 601. Grantor or its successors or assigns reserves the right to relocate this easement at its sole expense, provided that the relocated easement grants equivalent access to the property hereby conveyed to Grantee for all purposes allowed under the original easement, including but not limited to access to the Republic Dam with heavy equipment.

for the sum of FIFTY THOUSAND Dollars (\$50,000.00), subject to easements and building and use restrictions of record.

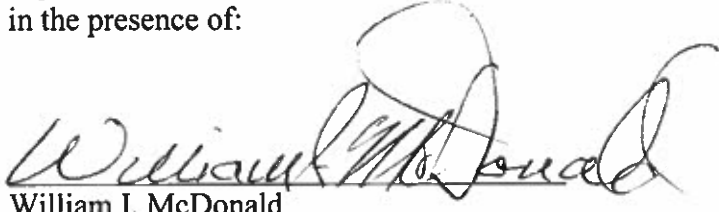
The Grantors grant to the Grantees the right to make ZERO divisions under Section 108 of the Land Division Act, Act No. 288 of the Public Acts of 1967, as amended.

This property may be located within the vicinity of farm land or a farm operation. Generally accepted agricultural and management practices which may generate noise, dust, odors, and other associated conditions may be used and are protected by the Michigan Right To Farm Act.

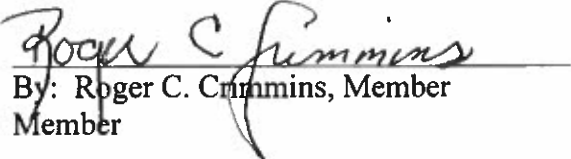
Dated this 16th day of May, 2018.

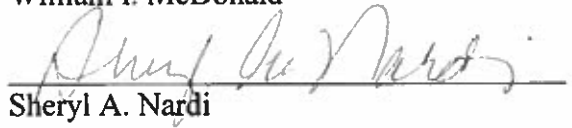
Signed, Sealed and Delivered
in the presence of:

Grantor


William I. McDonald

Republic Mountain Lake, LLC,
a Michigan Limited Liability Company



By: Roger C. Crimmins, Member
Member


Sheryl A. Nardi

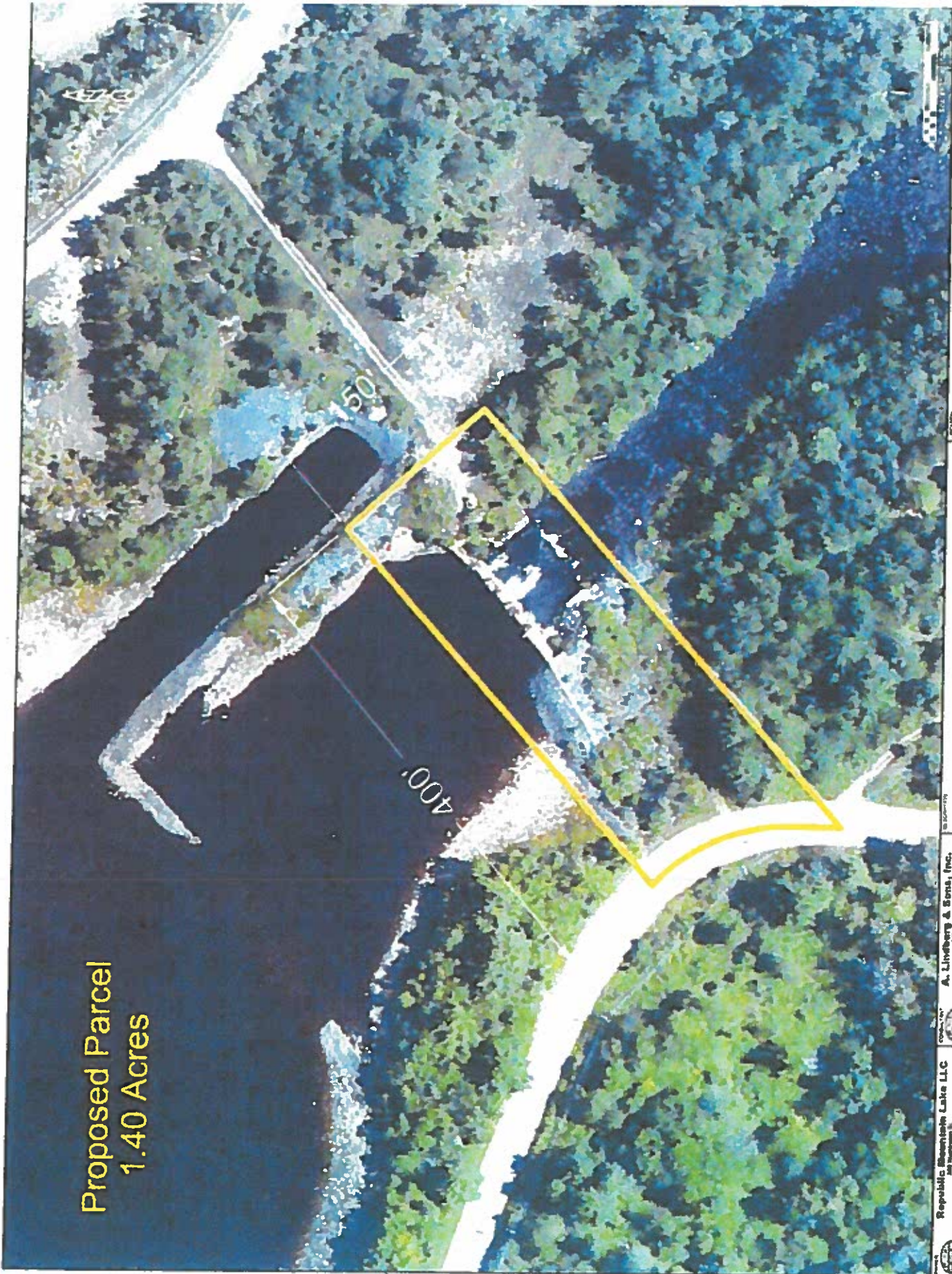
STATE OF MICHIGAN)
)ss
COUNTY OF MARQUETTE)

On this 16th day of May, 2018, before me a Notary Public, in and for said County, personally appeared Roger C. Crimmins, to me known to be the same person described in and who executed the foregoing instrument on behalf of Republic Mountain Lake, LLC, as its authorized Member, and who acknowledged the same to be the free act and deed of said limited liability company.

Prepared By:
William I. McDonald
115 S. Lakeshore Blvd., Ste. A
Marquette, MI 49855
TITLE NOT EXAMINED BY SCRIVENER


Sheryl A. Nardi, Notary Public
Marquette County
My Commission Expires: 07/07/20
Acting in Marquette County, Michigan

Proposed Parcel
1.40 Acres



Client	Republic Mountain Lake LLC
Company	A. Livshitz & Sons, Inc.
Address	NE 1/4 of NW 1/4, Sec 18, T48N-R25W Republic Twp., Marquette Co., Michigan
Project No.	W/E/N
Date	12/12/2017
Scale	1" = 100'
Sheet	0
Total	1

Roger Livshitz 12/12

Republic Mountain Lake L.L.C.

*599 Washington Street *Ishpeming, MI *49849

November 12, 2018

Mr. Roger Crimmins
Republic Mountain Lake LLC
599 Washington Street
Ishpeming, MI 49849

RE: MDARD Rural Development Grant Application

Dear Mr. Brennan,

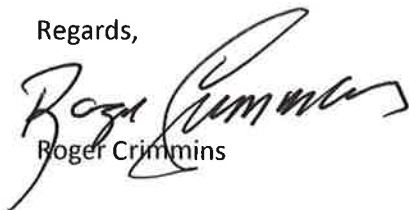
I, Roger Crimmins, as landowner of the adjacent three parcels (tax #: 52-12-018-002-10, 52-12-018-007-00, and 52-12-018-004-00), authorize the Michigamme River Basin Authority to access these three parcels as necessary to complete scope items included in modifying the primary spillway of Republic Dam.

I understand the MRBA is applying for funds to modify the spillway through the MDARD Rural Development Grant Program. We support these efforts to maintain the impoundment elevation and continued operation of the dam in a safe manner.

Copies of the most recent tax statements for the three parcels are attached.

Please continue to update me on this project as it progresses.

Regards,


Roger Crimmins

599 WASHINGTON ST
 ISHPeming, MI 49849

TAXABLE VALUE: 24,465
 SEV VALUE: 44,800 CLASS: 402
 ASSESSED VALUE: 44,800
 PRE/MBT %: 0 SCHOOL: 52110

NOTE: If your taxes are paid by a mortgage escrow, it is your responsibility to forward this notice to them.

FISCAL YEARS
 SCHOOLS: 07/01/2018 - 06/30/2019
 TWP: 04/01/2018 - 03/31/2019
 COUNTY: 01/01/2018 - 12/31/2018

PROP ADDR:
 SEC. 18 T46N R29W GOV'T LOT 8 LYINE
 E'LY OF CO RD LE

TAX ID 52-12-004-00
 018-004-00

ITEMIZED BILLING INFORMATION		MESSAGE TO DEBITOR	
STATE EDUCATION	17.79	JULY 2ND, 2018 TAX AND ADMIN FEE PAYABLE TO REPUBLIC TOWNSHIP. SEPT 15TH, 2018 IS INTEREST IS ADDED TO THE TAX. OCT 1ST, 2018 AND EACH MONTH THEREAFTER AN ADDITIONAL 1% INTEREST IS ADDED. CHECK MUST CLEAR ON OR BEFORE 18 JUNE. \$35. INADEQUATE CHECK CHARGE. RECEIPTS ARE SENT IF A SASE IS INCLUDED. ON APRIL 1ST, 2018 REAL PROPERTY TAXES ARE PAYABLE TO THE MARQUETTE CO TREASURER. QUESTIONS REGARDING YOUR PROPERTY VALUES CALL (906) 376-8139 OR 376-2877.	
COUNTY OPERATIONS	10.51		
REM SCHOOL OP	49.37		
REM SCHOOL DEBT	109.65		
SUBTOTAL	778.32		
ADMIN FEE	7.78		
EASE PAY THIS AMOUNT	786.10		

RETAIN THIS PORTION FOR YOUR RECORDS

REPUBLIC MOUNTAIN LAKE LLC
 599 WASHINGTON ST
 ISHPeming, MI 49849

PROP #: 52-12-018-007-00
 TAXABLE VALUE: 20,873
 SEV VALUE: 23,000 CLASS: 402
 ASSESSED VALUE: 23,000
 PRE/MBT %: 0 SCHOOL: 52110

NOTE: If your taxes are paid by a mortgage escrow, it is your responsibility to forward this notice to them.

FISCAL YEARS
 SCHOOLS: 07/01/2018 - 06/30/2019
 TWP: 04/01/2018 - 03/31/2019
 COUNTY: 01/01/2018 - 12/31/2018

PROP ADDR: 1999 E CO RD LF
 SEC. 18 T46N R29W GOV'T LOT 7 LYING
 E'LY OF CO RD LE.

ITEMIZED BILLING INFORMATION		MESSAGE TO DEBITOR	
STATE EDUCATION	17.79	JULY 2ND, 2018 TAX AND ADMIN FEE PAYABLE TO REPUBLIC TOWNSHIP. SEPT 15TH, 2018 IS INTEREST IS ADDED TO THE TAX. OCT 1ST, 2018 AND EACH MONTH THEREAFTER AN ADDITIONAL 1% INTEREST IS ADDED. CHECK MUST CLEAR ON OR BEFORE 18 JUNE. \$35. INADEQUATE CHECK CHARGE. RECEIPTS ARE SENT IF A SASE IS INCLUDED. ON APRIL 1ST, 2018 REAL PROPERTY TAXES ARE PAYABLE TO THE MARQUETTE CO TREASURER. QUESTIONS REGARDING YOUR PROPERTY VALUES CALL (906) 376-8139 OR 376-2877.	
COUNTY OPERATIONS	10.51		
REM SCHOOL OP	49.37		
REM SCHOOL DEBT	109.65		
SUBTOTAL	664.02		
ADMIN FEE	6.64		
EASE PAY THIS AMOUNT	670.66		

RETAIN THIS PORTION FOR YOUR RECORDS

REPUBLIC MOUNTAIN LAKE LLC
 599 WASHINGTON ST
 ISHPeming, MI 49849

PROP #: 52-12-018-002-10
 TAXABLE VALUE: 19,700
 SEV VALUE: 19,700 CLASS: 302
 ASSESSED VALUE: 19,700
 PRE/MBT %: 0 SCHOOL: 52110

NOTE: If your taxes are paid by a mortgage escrow, it is your responsibility to forward this notice to them.

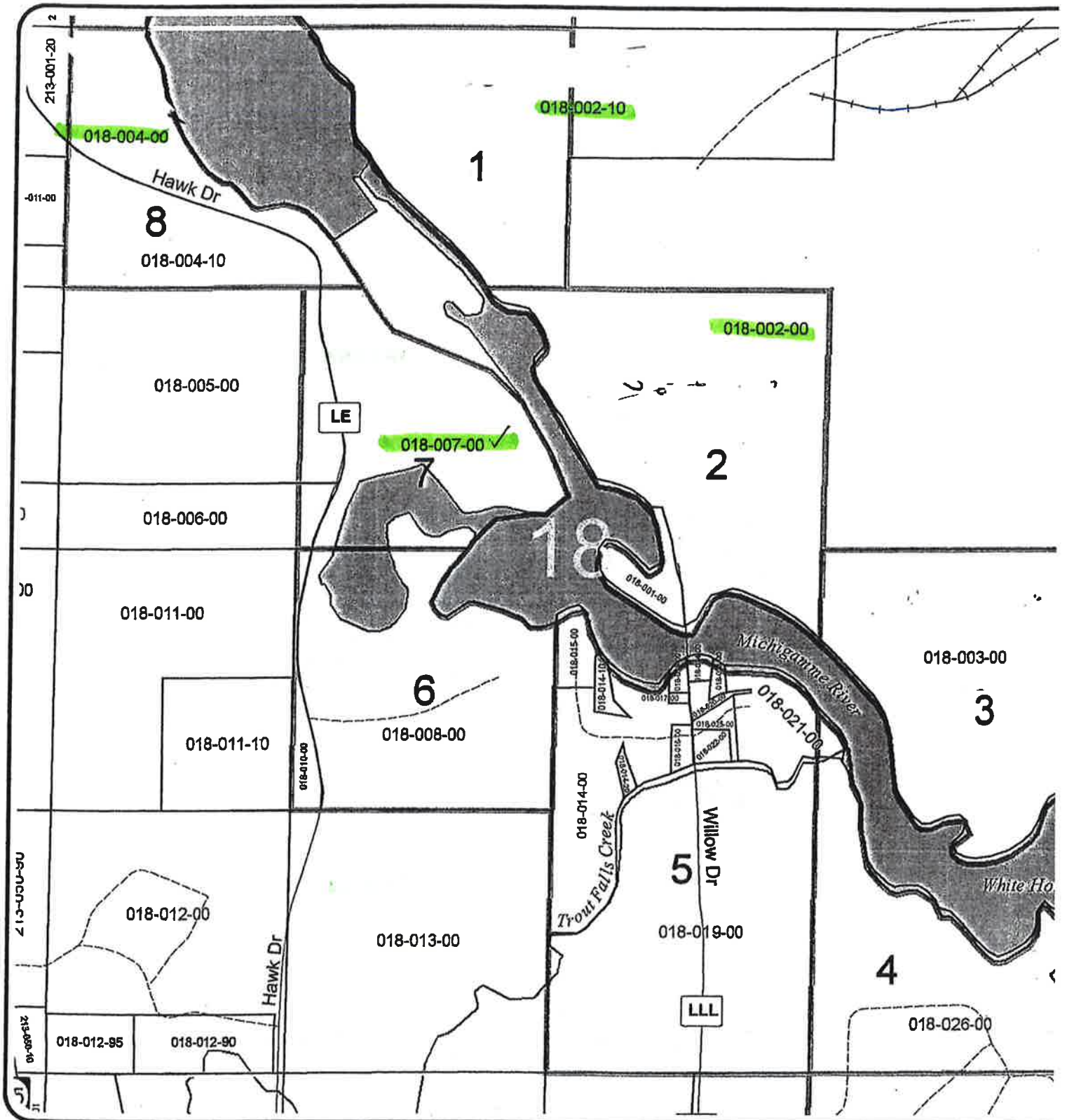
FISCAL YEARS
 SCHOOLS: 07/01/2018 - 06/30/2019
 TWP: 04/01/2018 - 03/31/2019
 COUNTY: 01/01/2018 - 12/31/2018

PROP ADDR: E CO RD LF
 SEC 18 T46N R29W GOV'T LOT 1 & N
 1/2 OF NW 1/4 OF NE 1/4.

ITEMIZED BILLING INFORMATION		MESSAGE TO DEBITOR	
STATE EDUCATION	138.20	JULY 2ND, 2018 TAX AND ADMIN FEE PAYABLE TO REPUBLIC TOWNSHIP. SEPT 15TH, 2018 IS INTEREST IS ADDED TO THE TAX. OCT 1ST, 2018 AND EACH MONTH THEREAFTER AN ADDITIONAL 1% INTEREST IS ADDED. CHECK MUST CLEAR ON OR BEFORE 18 JUNE. \$35. INADEQUATE CHECK CHARGE. RECEIPTS ARE SENT IF A SASE IS INCLUDED. ON APRIL 1ST, 2018 REAL PROPERTY TAXES ARE PAYABLE TO THE MARQUETTE CO TREASURER. QUESTIONS REGARDING YOUR PROPERTY VALUES CALL (906) 376-8139 OR 376-2877.	
COUNTY OPERATIONS	104.28		
REM SCHOOL OP	349.43		
REM SCHOOL DEBT	49.84		
SUBTOTAL	626.72		
ADMIN FEE	6.27		
EASE PAY THIS AMOUNT	633.00		

Republic

T46



© 2007 Marquette County Equalization Department

All Republic Township Tax ID Numbers have a prefix of "52-12-"

Not intended for legal use

Not responsible for any errors or omissions

Legend

-  Parcels
-  Section Lines
-  Government Lots

Attachment D - Letters of Support



501 South Front Street
Marquette, MI 49855
www.marquette.org
1-888-578-6489

(906) 226-6591
FAX (906) 226-2099
lscp@marquette.org



November 13, 2018

James Brennan, Authority Chairman
Michigamme River Basin Authority
PO Box 251
Republic, MI 49879

Re: MDARD Grant Application Letter of Support

The Lake Superior Community Partnership (LSCP) is a private-public partnership in Marquette County, Michigan whose mission is focused on the promotion and advancement of economic and community development. We are an Accredited Economic Development Organization through the International Economic Development Council (IEDC) and serve as the region's leading resource for economic development.

On behalf of the Lake Superior Community Partnership (LSCP), I would like to express our support of the Michigamme River Basin Authority's efforts to pursue the 2019 MDARD grant. If successful, we understand the grant would facilitate improvement to the Republic Dam necessary to retain the Michigamme River Basin in Republic, MI. Specific improvements include the installation of a fixed broad crest weir, and the removal of operable gates. We understand the project would enable the community to retain the Republic Dam, and, by extension, the Michigamme River Basin impoundment itself. The impoundment provides recreational, tourism and economic value to Republic, MI.

The project aligns with the LSCP's mission to provide an environment able to foster economic development. The impoundment's benefit to property values, tourism, and recreation opportunities are key attributes aligning with LSCP's overarching economic goals for the region.

The investment will support the growth and resilience of the region's economy and strengthen our community. If you have any questions, please do not hesitate to contact me at (906) 226-6591 or by email, aclickner@marquette.org.

Thank you for the consideration.

Sincerely,

A handwritten signature in black ink that reads 'Amy J. Clickner'.

Amy Clickner
Chief Executive Officer
Lake Superior Community Partnership

cc: Scott Richards, P.E. – GEI Consultants, Marquette, MI

Marilyn Brancheau, Clerk
Tom Stankus, Trustee

John Ulrich, Supervisor 376-8139
repsup@northpines.net

Kristina Koski, Treasurer
Tom Feldhusen, Trustee

REPUBLIC TOWNSHIP

www.republicmichigan.com

279 Kloman Avenue

Republic, MI 49879

Phone: 906-376-8827

Fax: 906-376-2383

January 15, 2018

To Whom It May Concern,

Please accept this letter as support by the Republic Township Board for the Republic Sportsmen's Club application for grant money for repair work and possible purchase of the Michigamme River Dam. The very survival of the entire town is dependent upon having the proper water levels in the basin especially during peak Spring and Summer season.

Not only do the property owners on the river itself depend on this for maintaining their property values that they have worked so hard for, but so do business owners who make their living from the scheduled activities that occur during this time of year, the largest of which is the Annual Fishing Derby. Since the new campground has been added, thanks to another grant from the State of Michigan, this enables Republic to attract many more visitors to the area to enjoy the activities that the basin provides.

This project is an absolute step in the right direction for the continued success of Republic Township for all of its residents and visitors.

Sincerely,


Marilyn Brancheau
Clerk, Republic Township



RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF NATURAL RESOURCES
LANSING



KEITH CREAGH
DIRECTOR

January 12, 2018

Michigan Department of Agriculture and Rural Development
Rural Development Grant Program
P.O. Box 30017
Lansing, Michigan 48909

Dear Grant Staff,

This is a letter in support of the grant proposal from the Michigamme River Basin Authority to repair the dam on the Michigamme River in Republic, Marquette County.

The proposed repairs of the dam in Republic represents a critical opportunity for the local community to update infrastructure that supports outdoor recreational opportunities on the Michigamme River. Repairs are necessary to allow the safe and controlled operation of the dam during filling and drawdown of the impoundment and also to provide a safe riverine environment for their annual fishing derby. This derby is a critical economic vehicle for the community and showcases the fishing opportunities in the river to local and non-local anglers alike.

The Michigamme River supports a diverse fishery and provides popular and unique economic and recreational values to the stakeholders in the Republic area. Please consider these quality-of-life values when reviewing their grant application.

If you have any questions, please feel free to contact me at (906) 786-2351 or kramerd@michigan.gov.

Sincerely,

Darren Kramer
DNR Fisheries Supervisor
(906) 786-2351

Moose Country Snowmobile Club

January 11, 2018

The Moose Country Snowmobile Club and its 392 members are in support of the Republic Sports men club application for grant moneys for work and possible purchase of the Michigamme River Dam and property involved. This is a very important part of this community and its surrounding residents. This reservoir is extremely important to value of the property and the landowners involved. With the addition of the new campground it can only add to the use and enjoyment to the Basin for water activities. This project would help to attract more people to the campground and Republic areas. Our club really hopes this project continues to go forward with great success.

*Moose Country Snowmobile Club President;
Dave Keto*

A handwritten signature in black ink that reads "Dave Keto". The signature is written in a cursive style with a long, sweeping horizontal line extending from the end of the name.



County of Marquette

Courthouse Complex
234 W. Baraga Avenue
Marquette, Michigan 49855
Fax: (906) 225-8155
www.co.marquette.mi.us

County Administrator
225-8151
Finance & Accounting
225-8175
Human Resources & Risk
225-8162
Information Systems
225-8170

January 9, 2018

Michigan Department of Agriculture & Rural Development
P.O. Box 30017
Lansing, Michigan 48909

RE: Marquette County Letter of Support for Republic Township Dam Infrastructure Study and Improvement Project MDARD Grant Application


To whom it may concern:

On behalf of Marquette County, I would like to express support for the Michigan Department of Agriculture and Rural Development's 2018 Rural Development Fund (MDARD) grant application which seeks funding for the Republic Dam Infrastructure Study & Improvement Project.

It is important that this study take place as there are noted concerns regarding the condition of the dam and needed infrastructure improvements. As this dam is needed to control excessive water levels, it is integral to public safety and therefore, is seen as a high priority. In addition, the Republic Township Dam is important for potential industrial development in the area, supporting the recreation and tourism industry, the stabilization of real estate values for properties along the Michigamme River, and sustaining fish within the waterway.

The completion of the study will assist with the sustainability of land-based activity in Marquette County and the Upper Peninsula. For these reasons, Marquette County supports this grant request.

Sincerely,


Gerald O. Corkin
Chairman

January 16, 2018

Michigan Department of Agriculture and Rural Development
Rural Development Grant Program
P.O. Box 30017
Lansing, MI 48909

RE: Republic Dam Repair Project

To whom it may concern:

This letter is to express support for the grant proposal from the Michigan River Basin Authority to fund critical infrastructure repairs to the Republic Dam in Republic Township, Marquette County.

The repair of the dam gates is crucial for the dam's continued operation, which has been an integral part of the local community and environment for the past 140 years. The dam is important for recreational and economic reasons, notably the prospect of potential mining activity, which was the dam's original function. Opportunities exist for the reprocessing of tailings at the Republic Mine site, which would have environmental as well as economic benefits to the area.

Recreation such as fishing, boating and swimming along local residential and public property is fully reliant on the safe operation of the dam. Multiple publicly-funded campgrounds also rely the dam's continued operation.

In addition, the dam sustains the annual Republic Sportsman's Club Fishing Derby, a tournament that has drawn hundreds of fishermen, families and tourists every year for the last 26 years, generating financial and social benefits to the historic mining community. The event draws on average about 400 fishermen per year, with considerably more than that coming to enjoy events like the parade and fireworks, as well as camping and shopping at local businesses. The derby is the largest tourism event of the year for the township, and loss of the dam would mean loss of the event.

The Republic Dam represents the heart of these and other land-based activities that are pivotal for the economic stability of Republic Township. The township, one of many communities harmed by the idling of the Empire Mine and subsequent loss of about 300 jobs, stands to benefit in measurable and immeasurable ways from the dam's continued operation.

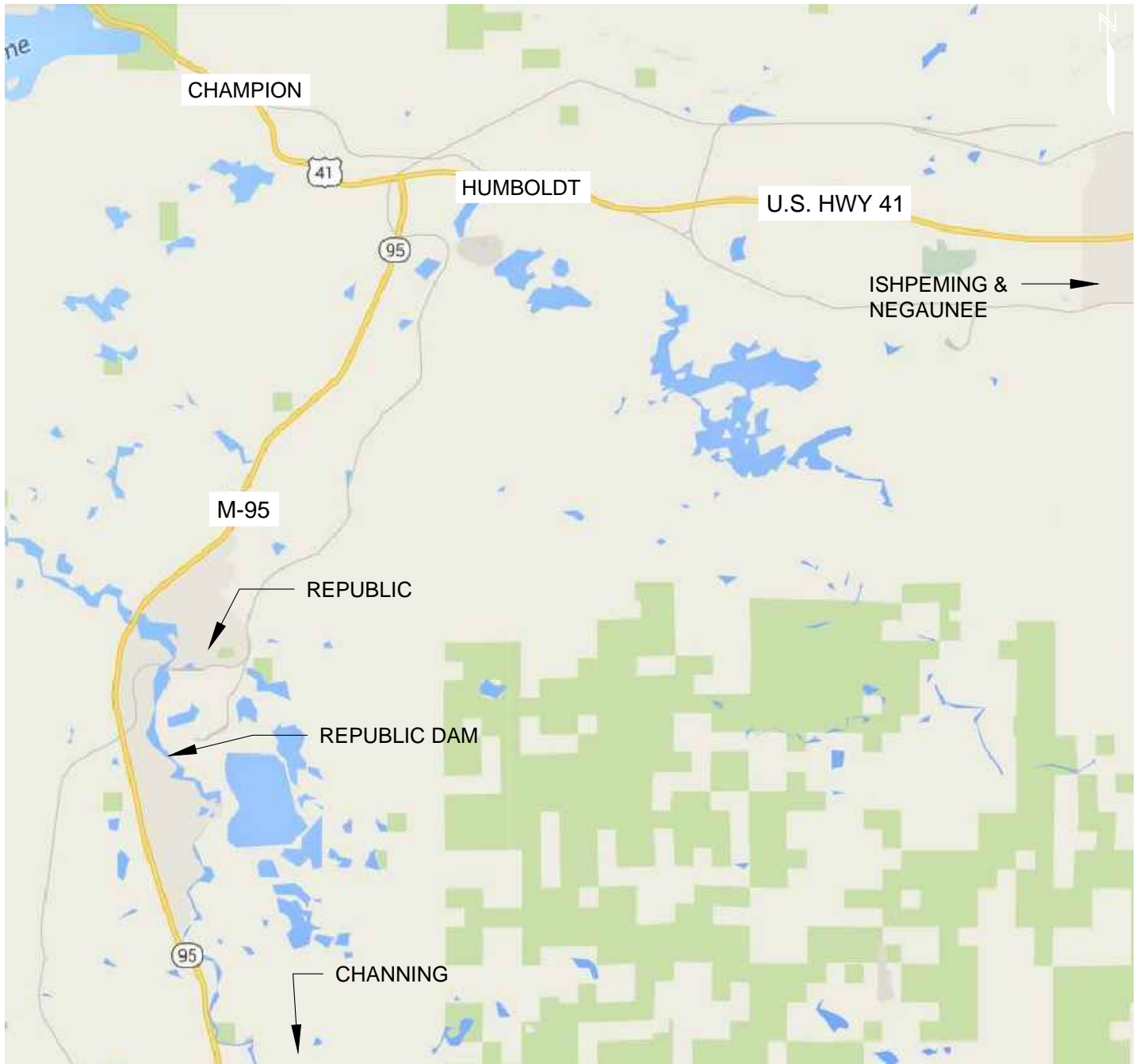
Thank you for your consideration of these facts in reviewing the MRBA's grant request.

Sincerely,



Sara Cambensy
State Representative
Michigan's 109th District
(517) 373-0498

Attachment E - Project Site Background Information



Republic Dam
 Dam I.D. No. 579
 Marquette County, Michigan
 Republic Mountain Lake LLC
 Ishpeming, Michigan

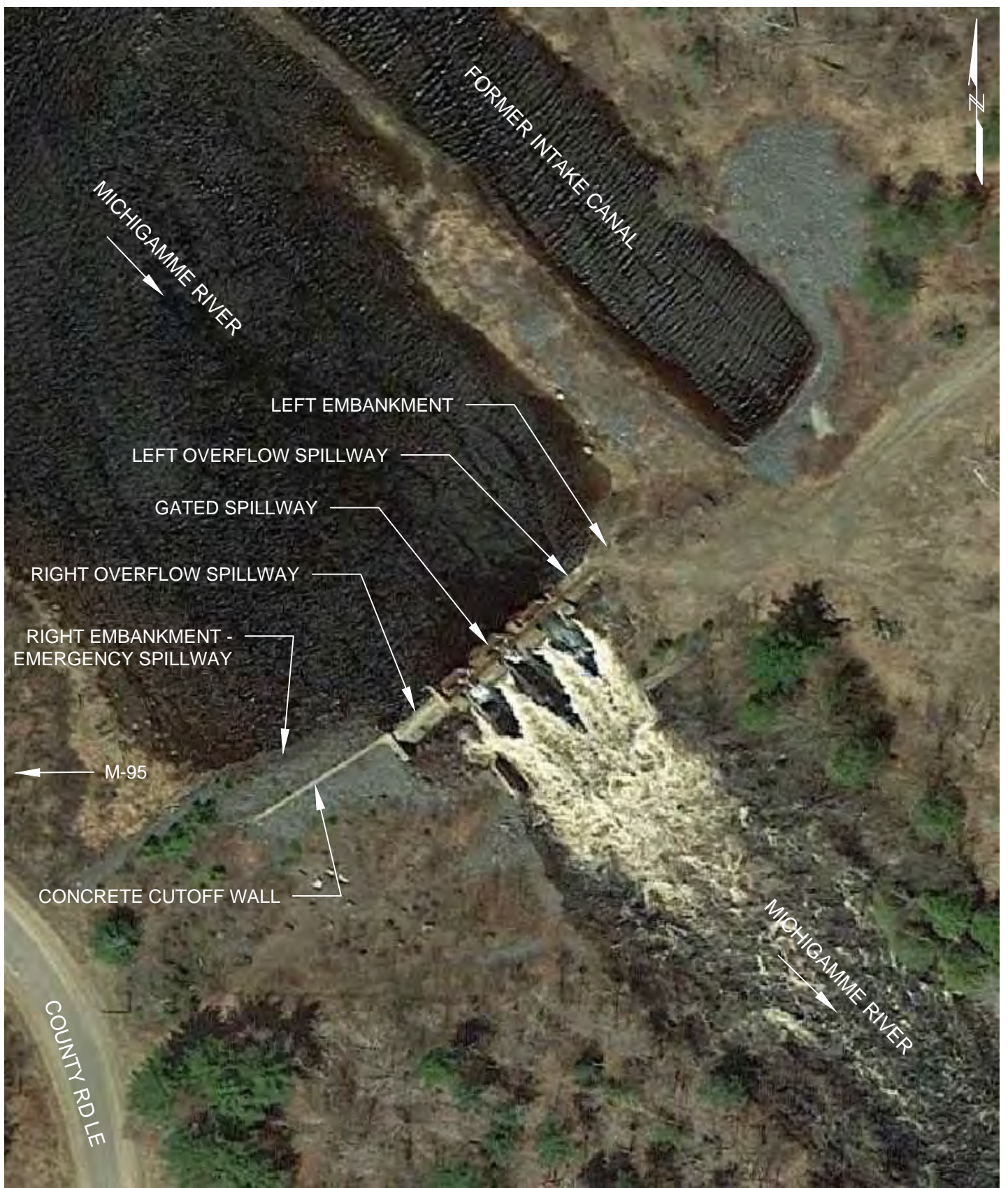


Project Location Map

Project 1505990

December 2015

Figure 1



Republic Dam
 Dam I.D. No. 579
 Marquette County, Michigan
 Republic Mountain Lake LLC
 Ishpeming, Michigan



Project 1505990

Aerial Photograph
 Location Map

December 2015

Figure 2

Republic Dam Inspection Photos

Date: 12/14/2015

GEI Project No.: 1505990

Client: A. Lindberg and Sons



Photo No. 1 – View of downstream face of the dam looking north.



Photo No. 2 – View of the downstream side of the dam looking west.
Note the open middle slide gate.

Republic Dam Inspection Photos

Date: 12/14/2015

GEI Project No.: 1505990

Client: A. Lindberg and Sons



Photo No. 3 – View looking southwest of the downstream slope of the right embankment.
Note the heavy riprap and small vegetation.



Photo No. 4 – View looking south at the former powerhouse site.
Note the riprap armored slopes of the former intake canal.

Republic Dam Inspection Photos

Date: 12/14/2015

GEI Project No.: 1505990

Client: A. Lindberg and Sons



Photo No. 5 – View looking north, showing the downstream face of the dam and the heavily vegetated left embankment.

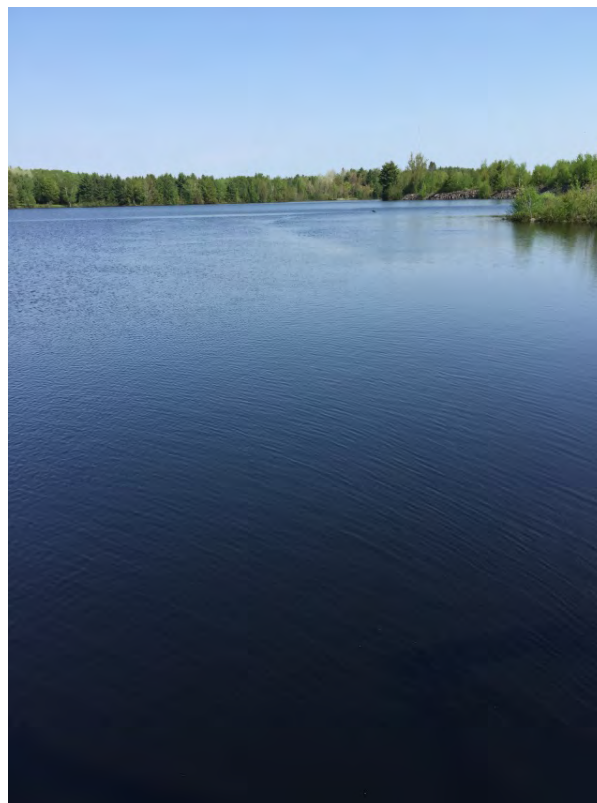


Photo No. 6 – View looking northwest at the upstream reservoir from the dam crest.

Republic Dam Inspection Photos

Date: 12/14/2015

GEI Project No.: 1505990

Client: A. Lindberg and Sons

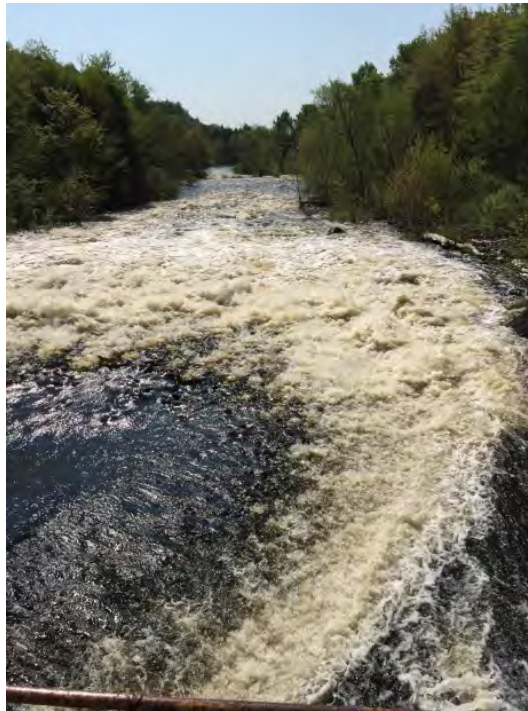


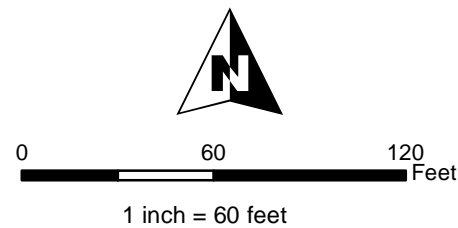
Photo No. 7 – View looking southeast from the dam crest at the discharge in the river channel.

Attachment F - Republic Dam Preliminary Planning Documents



Michigamme River Basin Authority
 Republic Dam
 Republic, Michigan

Michigamme River Basin Authority



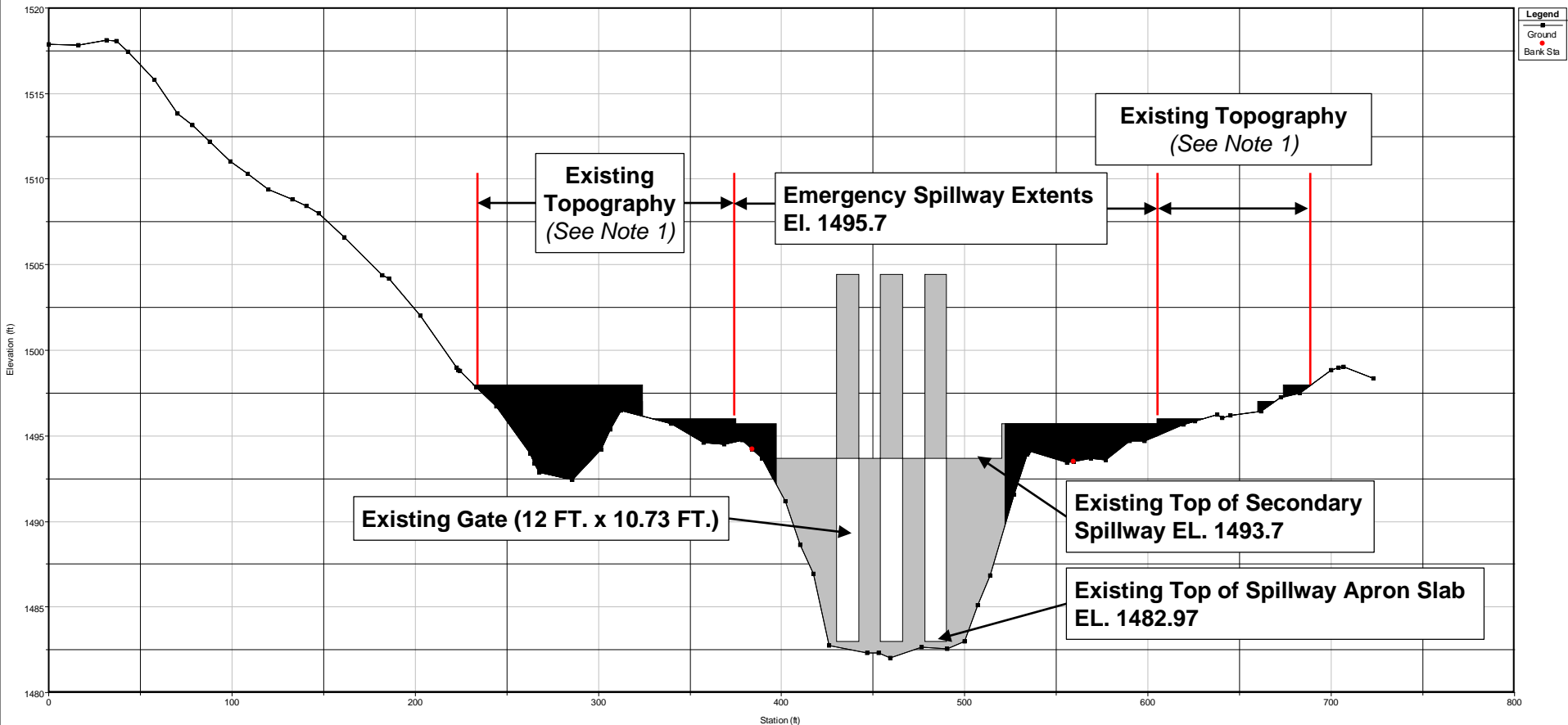
REPUBLIC DAM - EXISTING SITE CONDITIONS

Project: 1803948

Figure: 1

REPUBLIC DAM, MICHIGAMME RIVER EXISTING DAM - GEOMETRY

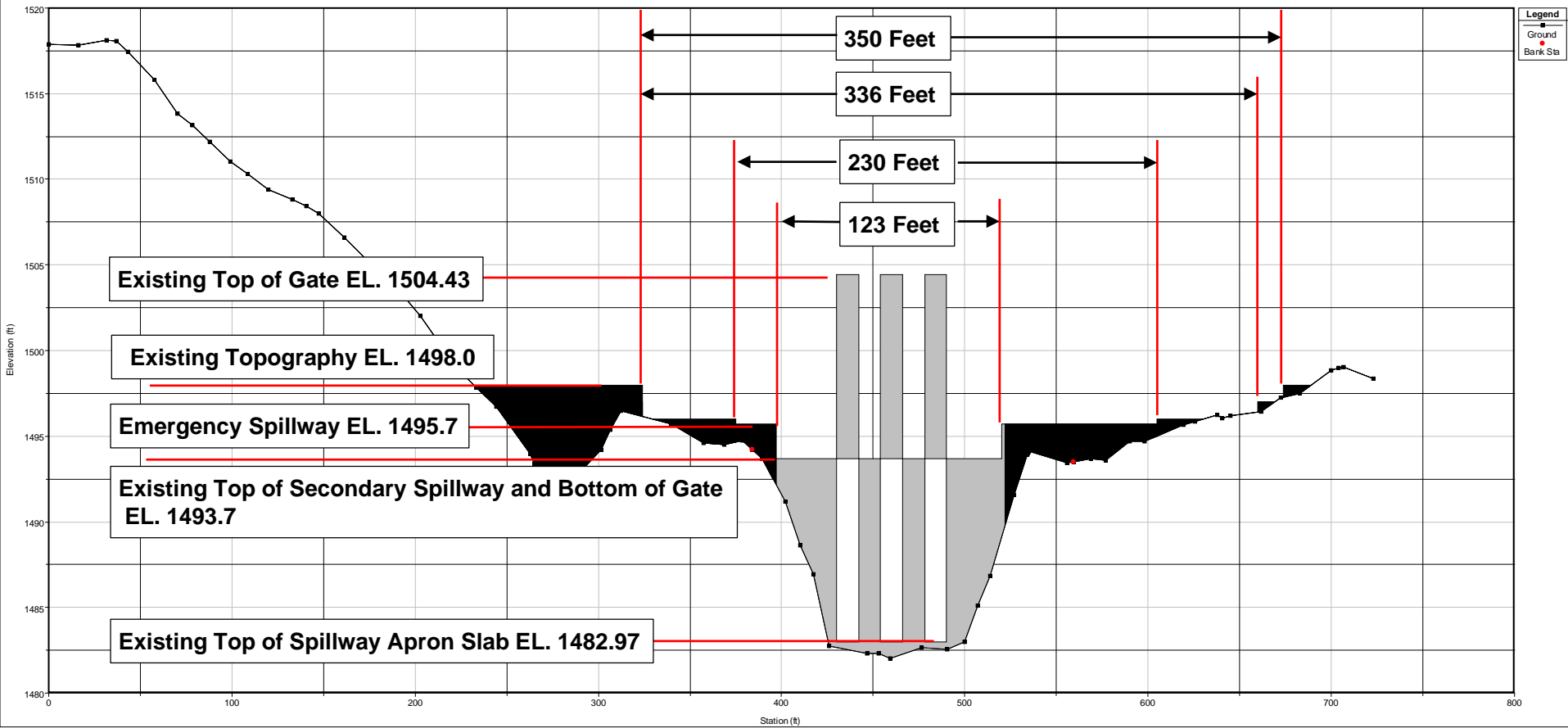
RepublicDam Plan: Republic_Existing 11/6/2018



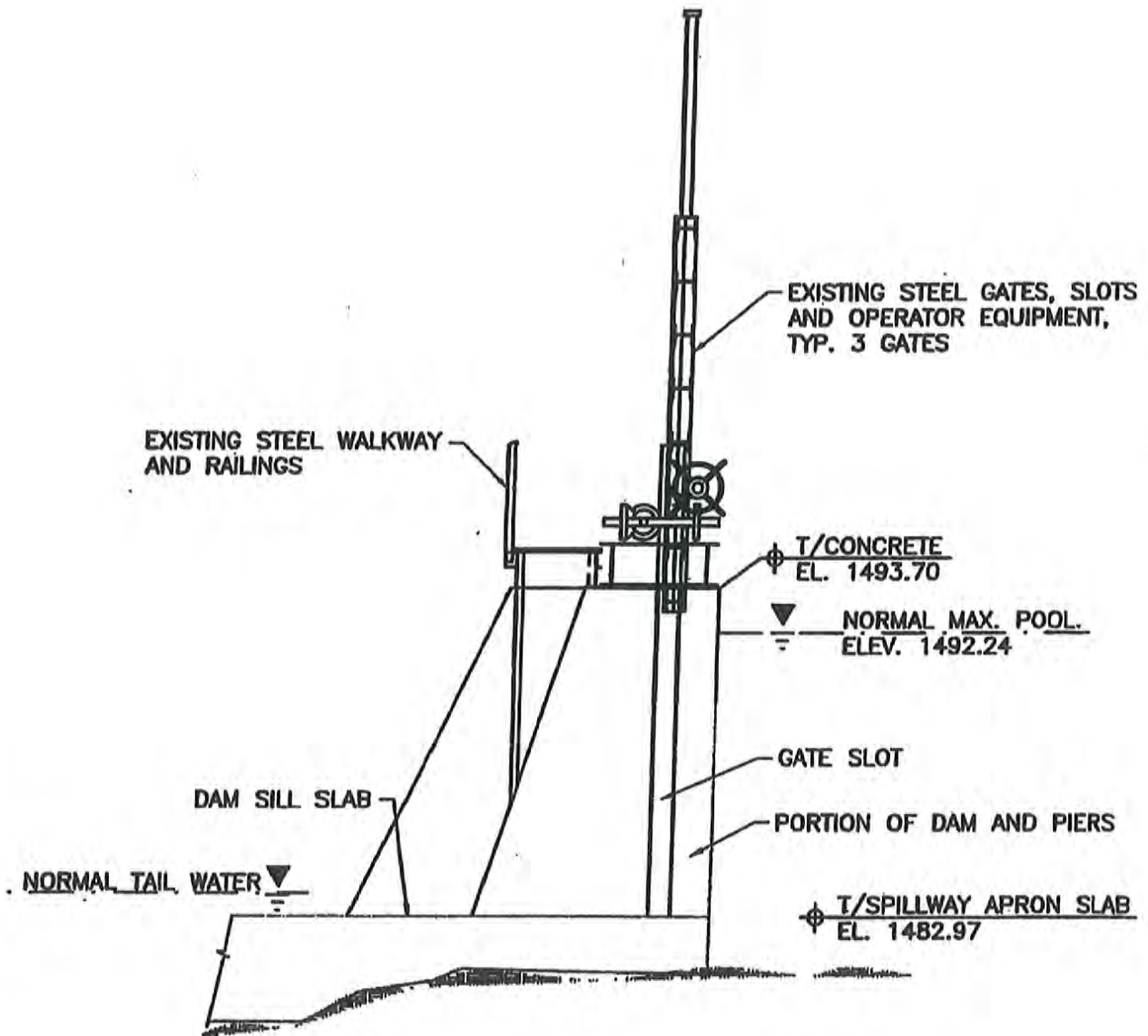
Note 1: Blocked obstructions (solid black fill) were used in areas where the existing topographic elevations were less than the existing embankment elevations. This approach was used to generate a conservative hydraulic model.

REPUBLIC DAM, MICHIGAMME RIVER EXISTING DAM - DIMENSIONS

RepublicDam Plan: Republic_Existing 11/6/2018



Section through Dam





PHASE I CONSTRUCTION SUMMARY:

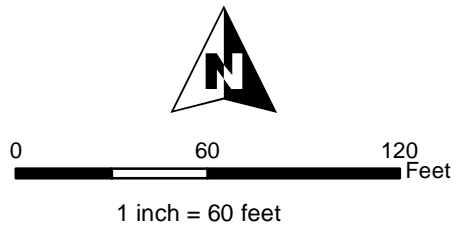
1. FILL EXISTING GATE OPENINGS WITH CONCRETE BULKHEADS TO LOW FLOW CHANNEL EL. 1491 AND SIDE EL. 1492.
2. REMOVE GATES AND ASSOCIATED METAL COMPONENTS
3. REMOVE EXISTING CONCRETE PIERS TO EL. 1492.

PHASE I PROJECT RESULT:

123 FOOT WIDE BROAD CRESTED WEIR

Michigamme River Basin Authority
 Republic Dam
 Republic, Michigan

Michigamme River Basin Authority



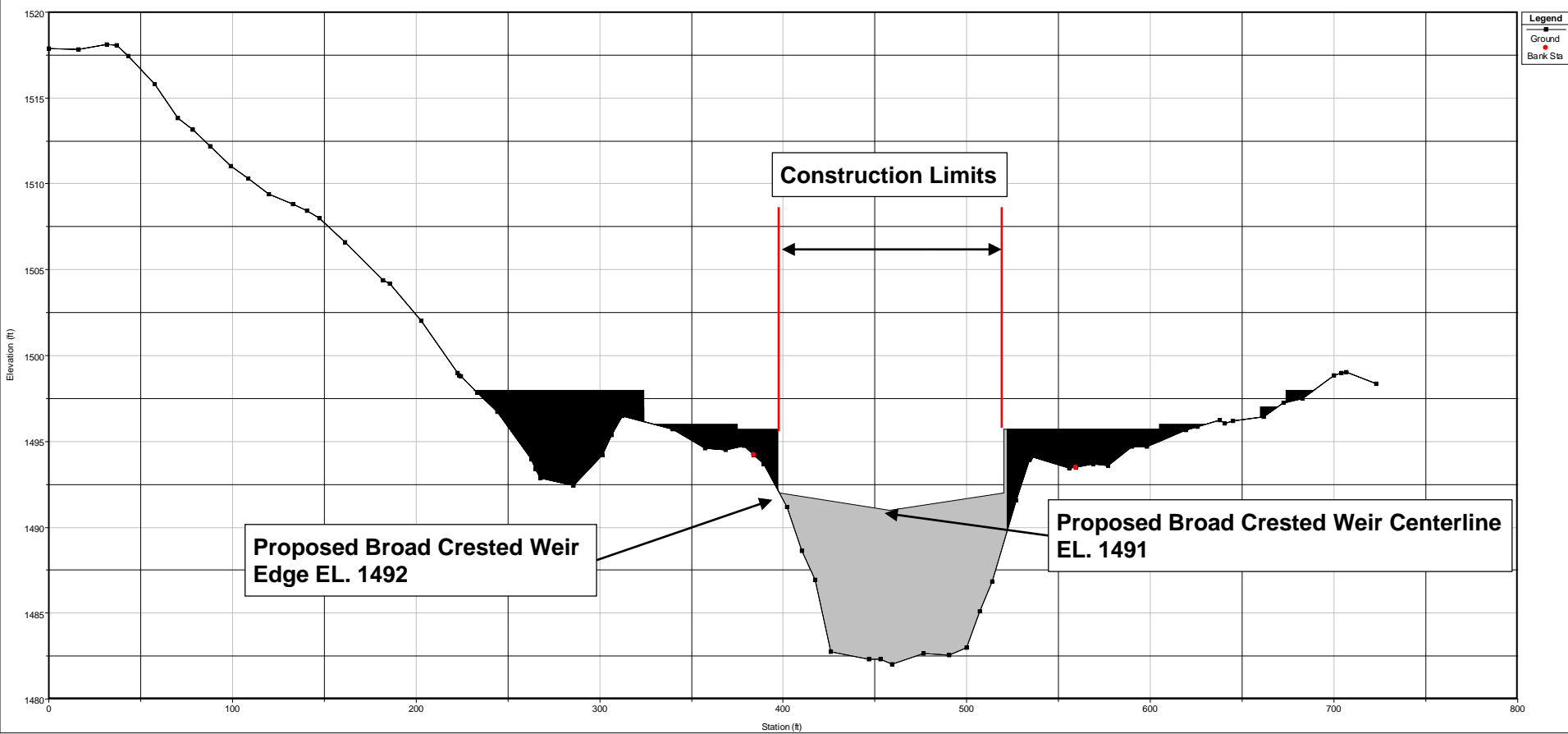
**PHASE I - FIXED CREST WEIR
 (MDARD FUNDING)**

Project: 1803948

Figure: 2

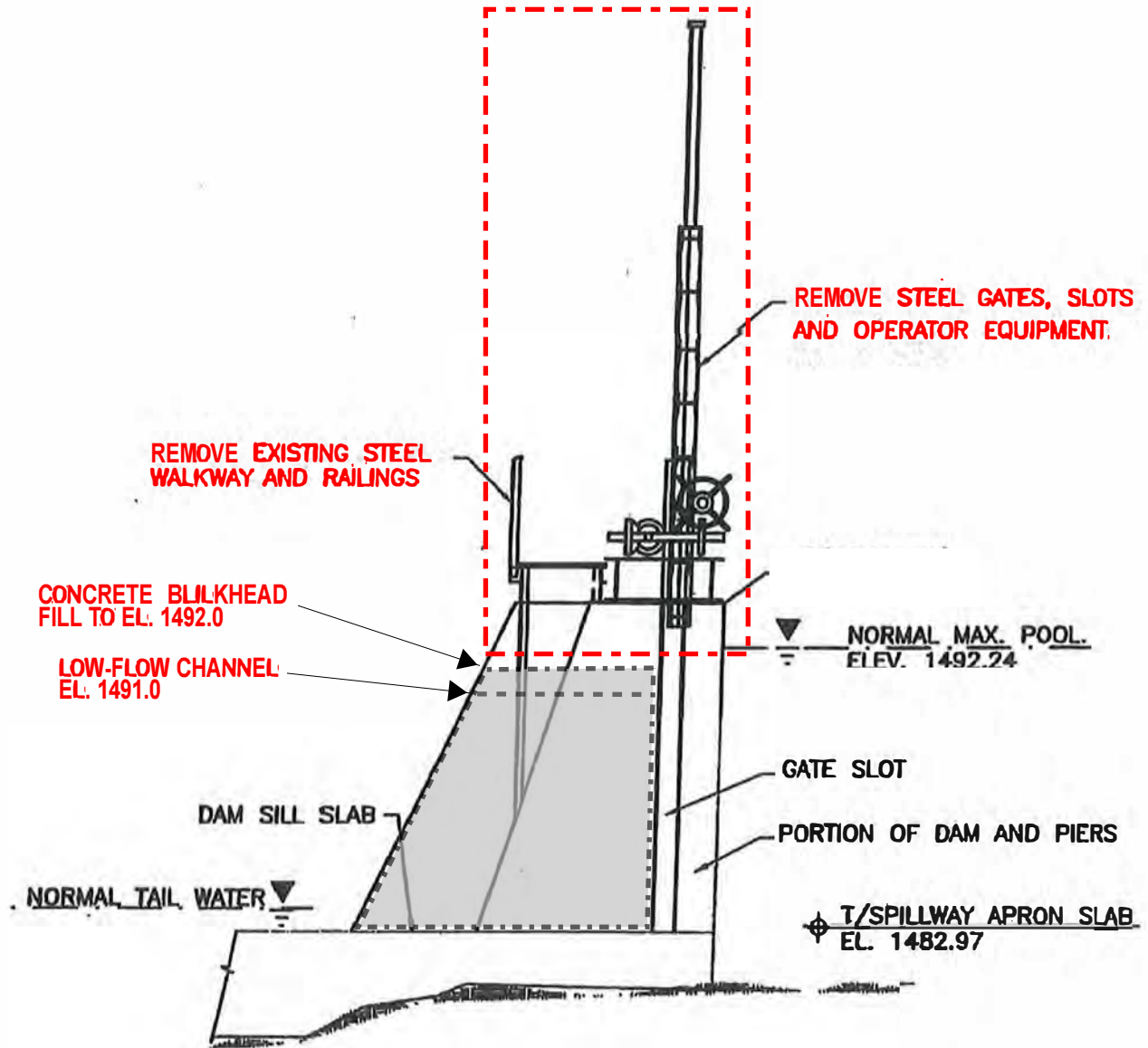
REPUBLIC DAM, MICHIGAMME RIVER PROPOSED DAM - GEOMETRY

RepublicDam Plan: Republic_FixedCrestWeir 11/6/2018

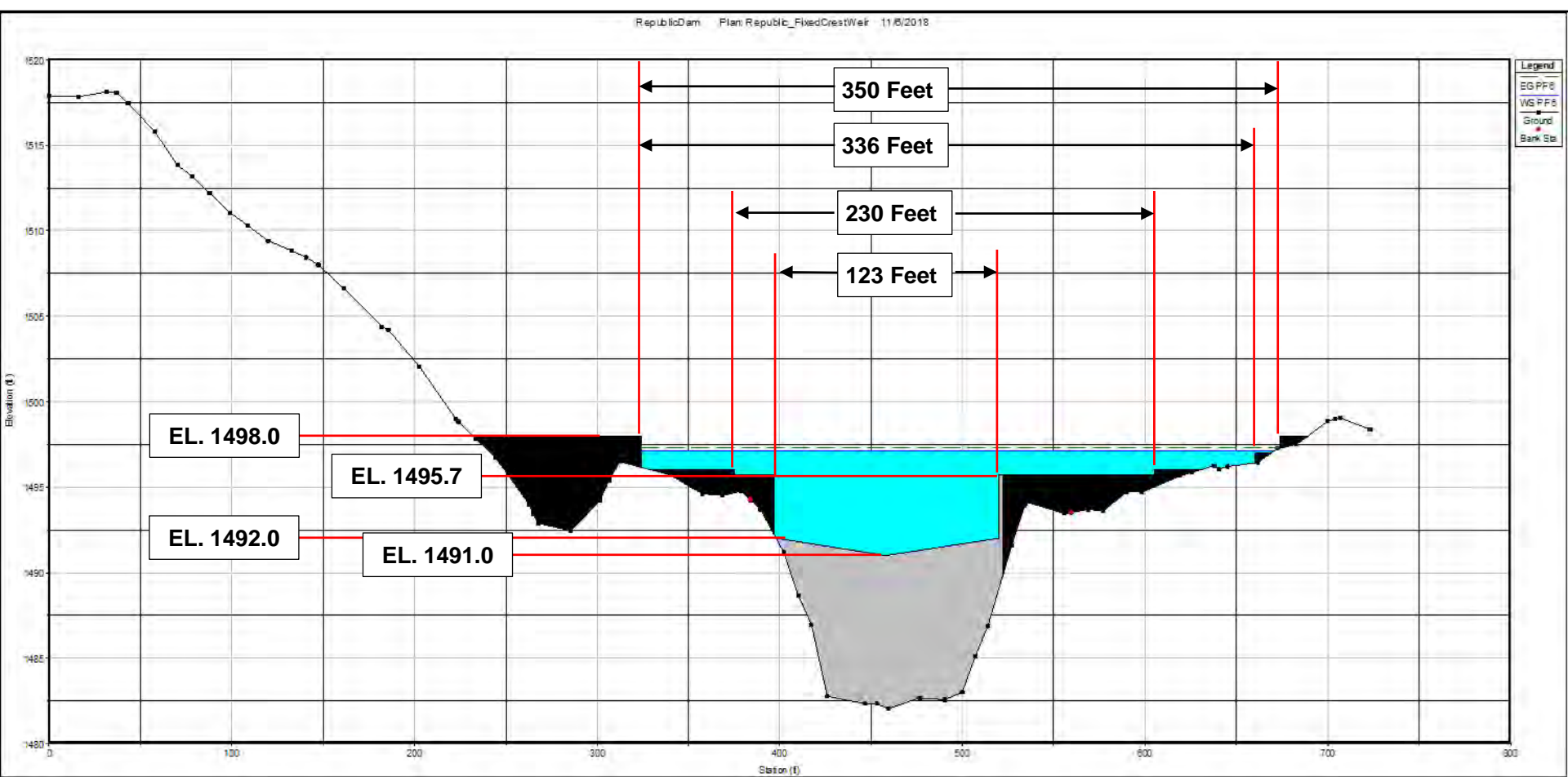


Legend
Ground
Bank Sta

Section through Dam - Proposed



REPUBLIC DAM, MICHIGAMME RIVER PROPOSED DAM - DIMENSIONS



REPUBLIC DAM, MICHIGAMME RIVER PROPOSED DAM - DIMENSIONS

RepublicDam Plan: Republic_FixedCrestWeir 11/7/2018

