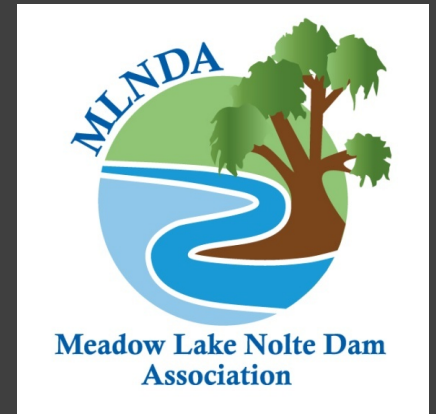




MLNDA Membership Meeting

Date: 8/31/2019

Agenda

- ▶ Introduction to MLNDA (15 min)
- ▶ Gate Replacement Options (20 min)
- ▶ Financing of the Dam (20 min)
- ▶ Path Forward (10 min)
- ▶ Q&A (30 min)

INTRODUCTION TO MLNDA

Board of Directors	Officers
Jacy Robbins	President
Miriam Jones	Vice President
Tim Bays	2 nd Vice President
Roxanne Henricksen	Treasurer
Sydney Burton	Secretary
Janet Hudson	
Robert Raetzsch	
Molly Kelley	
Eilen Thedford	
Board Member 10	To be Elected
Board Member 11	
Board Member 12	
Board Member 13	

Membership

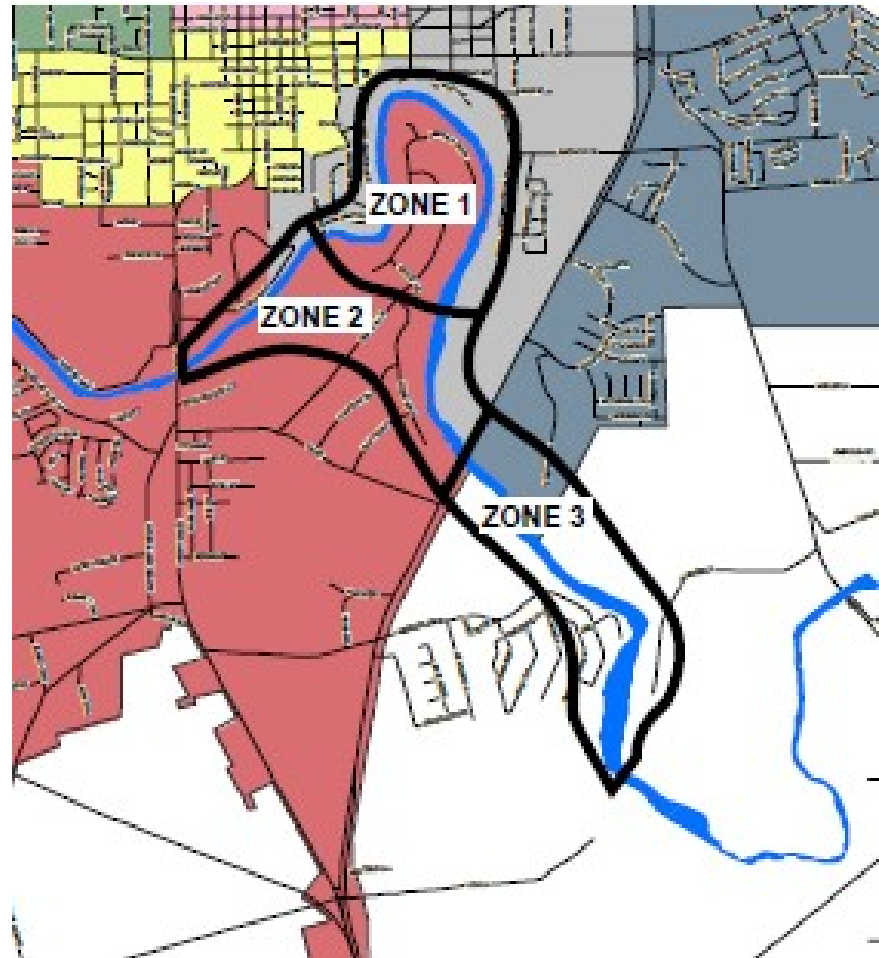
- Purpose – to preserve Meadow Lake & Nolte Dam
- Membership – open to all to support the above purpose; family, friends, neighbors, business leaders and community citizens
 - Dues - \$50
 - 10% of members petition to call Special Meeting
 - Quorum – 20% of membership
 - Voting decided by simple majority
 - Voting may be done by proxy
 - 50% of members petition may amend bylaws
 - Removal – 2/3 vote by Board of Directors

Board of Directors

- Qualifications
 - Property Directors – members who own land abutting Meadow Lake
 - Associate Directors – any member who supports purpose of Organization
 - No two members related by blood within 2nd degree or marriage may serve at same time
- 2/3 Board Members shall be Property Directors
- Number – 5 to 15
- Voted in by a quorum of Membership
- Tenure – 3 year term, terms to be staggered among board members
- Quorum – majority of Directors
- Compensation – none except expenses incurred on behalf of Organization
- Removal – $\frac{3}{4}$ vote by Board of Directors
- All members of the Board of Directors must sign Conflict of Interest Policy

Board of Directors

- Precedence
 - 2 members from each Zone
 - 2/3 Property Directors
 - Remaining seats open to all



Officers

- President, Vice President(s), Treasurer, Secretary
- Officers listed above must have status of active members of the Board
- Additional Vice Presidents may be added
- Assistant Secretaries may be added – Not required to be Board Members
- Election – Elected annually by Board of Directors
- Tenure – 1 year
- Removal – Majority vote by Board

Committees

- Chairman – Must be a Board Member and is appointed by the Board of Directors
- Term – Annually appointed. May be re-appointed for successive terms

Committees

Committee	Chair	Members
Executive	Jacy Robbins	Miriam Jones, Tim Bays, Roxanne Hendrickson, Sydney Burton
HSE	Tim Bays	
Communications & Public Relations	Sydney Burton Co-Chair: Janet Hudson	Christy Sellers, Miriam Jones
Association Fundraising	Molly Kelley	Roxanne Henricksen
Membership	Janet Hudson	All
GBRA	Janet Hudson	Jacy Robbins, Robert Raetzsch, Brent Hammond, Miriam Jones, Tim Bays
Technical on Dam Construction	Jacy Robbins Co-Chair: Tim Bays	Matt Sellers, Leighton Moore, Brent Hammond
Financing on Dam Construction	Miriam Jones Co-Chair: Brent Hammond	Robert Raetzsch, Jacy Robbins

Committees

Committee	Description
Executive	Made up of all officers. Will meet periodically to review budget, approve expenditures, evaluate direction of organization and review committees
HSE	(Health, Safety and Environment, includes river clean-up) - Duties include water safety and boating, water quality, encouragement of fishing, tree protection, debris removal, protection of shoreline, growth of noxious vegetation (algae in the water), and enhancement of the lake, etc. Will also aim at working with GBRA to promote some or all of the above duties
Communications & Public Relations	Will handle Facebook postings, email notifications, publicity, updates to members, possible website and any public relations. Manages how information about MLNDA and its activities is spread to the public. Will work with other lake associations and organizations such as the Save Our Lakes Coalition.
Association Fundraising	Raise funds for the association through event planning, merchandise
Membership	To support in spreading the word for the addition of more members. We need all members to be involved with this

Committees

Committee	Description
GBRA	Official contact with GBRA. The chair and/or president/vice presidents should strive to represent MLNDA at all GBRA meetings. All official contact with GBRA will funnel through the chair to keep clear lines of communication
Technical on Dam Construction	Evaluate all gate replacement options and investigate the lowest life cycle cost option that is technically acceptable. Continue to stay involved and represent MLNDA interests during the engineering, procurement and construction of the gate
Financing on Dam Construction	Will look into any and all funding options for the dam including, but not limited to: city, county and state funding; power sales from hydroelectricity; water control improvement district (WCID); municipal bonds; donations; SEDC; C of C; Federal Government (FEMA); grants from environmental groups; etc.

Gate Replacement Options

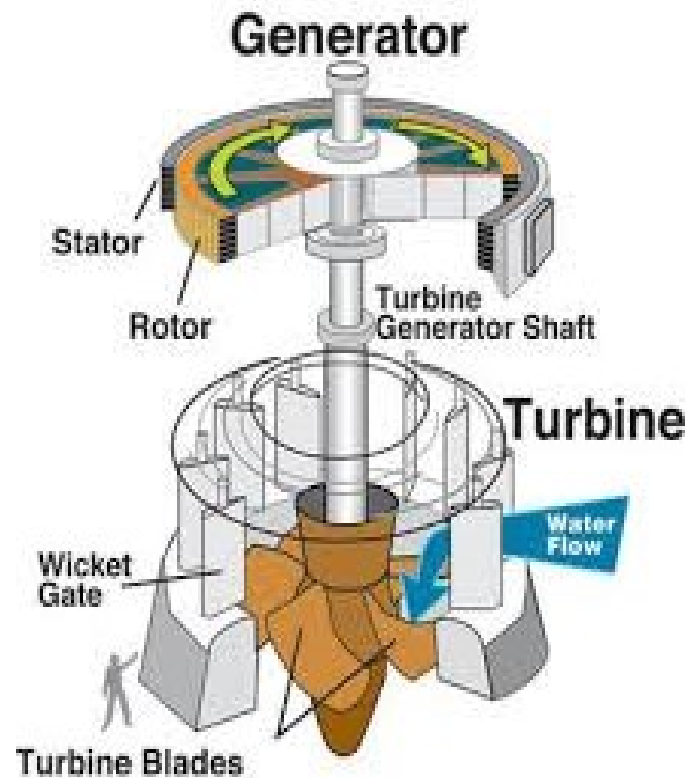
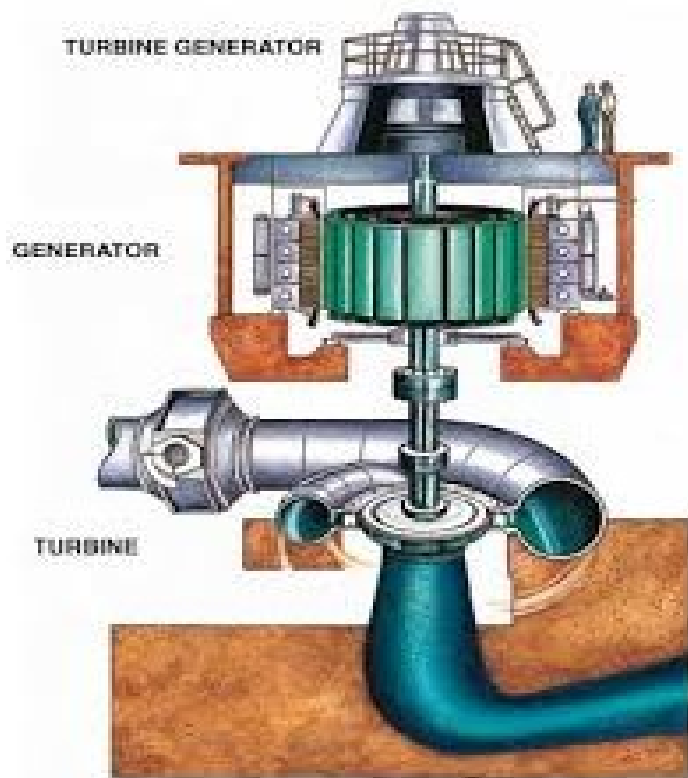
- ▶ Hydroelectric System & Spillgate Operations Overview
- ▶ Gate Design Requirements
- ▶ Gate Options & Technical Considerations
- ▶ Cost & Schedule
- ▶ Modernized Bear Trap Optimization
- ▶ TCEQ Requirements

Hydroelectric System & Spillgate Overview

Hydroelectric system - handle flows up to 1300 cfs (650 cfs per generator) once this flow is surpassed the spillgates are utilized and spilling operations required.

For inflows below the capacity of the spillway (approximately 30,000 cfs) GBRA can throttle flows over partially lowered gates while maintaining the normal headwater elevation to the maximum degree possible. For large inflows exceeding spillway capacity (approximately 30,000 cfs) water levels rise uncontrollably as in major flood events (1998, 2002, etc.)

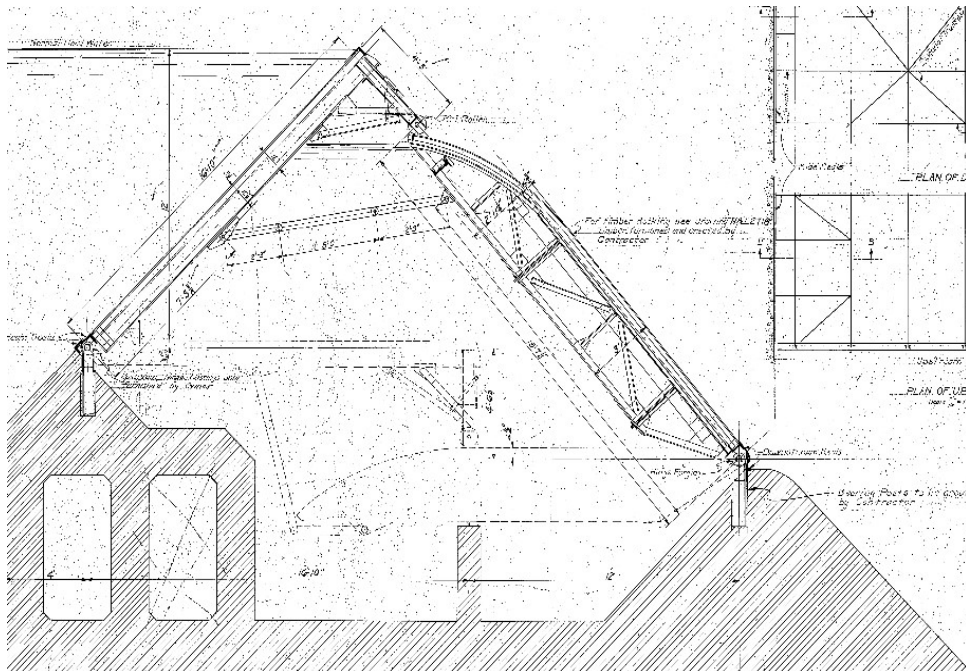
Hydroelectric System Overview



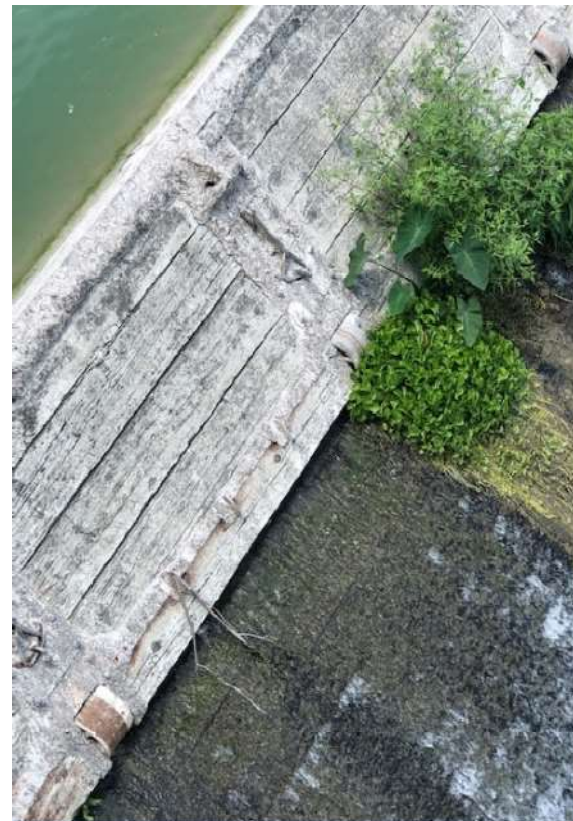
Hydroelectric System Overview



Spillgate Operation Overview



Spillgate Operation Overview



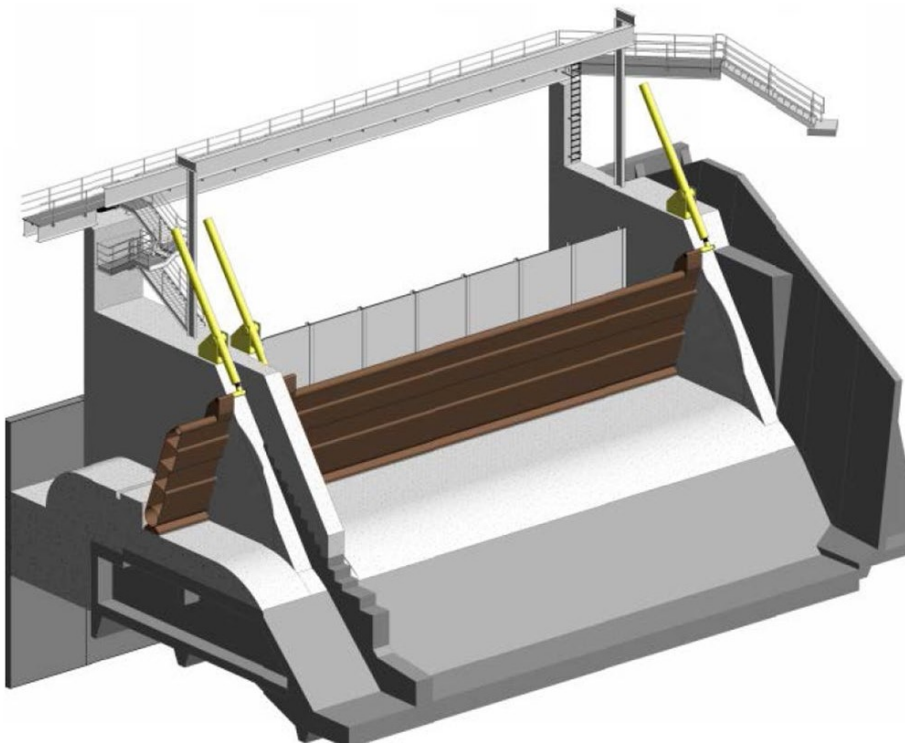
Gate Design Requirements

- Design Requirements:
 - Impound Water – Provides hydroelectric generation & recreational use
 - Provide way for passing river flows. Discharge capacity must remain the same as not to increase flooding. This requirement makes a gravity/static dam not possible.
 - Gates provide local flood control for homes along the lake, but do not have additional capacity to hold back/contain flood waters to mitigate flooding downstream. For FEMA this does not constitute flood control.
- Freese & Nichols (Engineering Consulting Firm) have determined all gate options meet above criteria and are technically acceptable

Gate Design Requirements

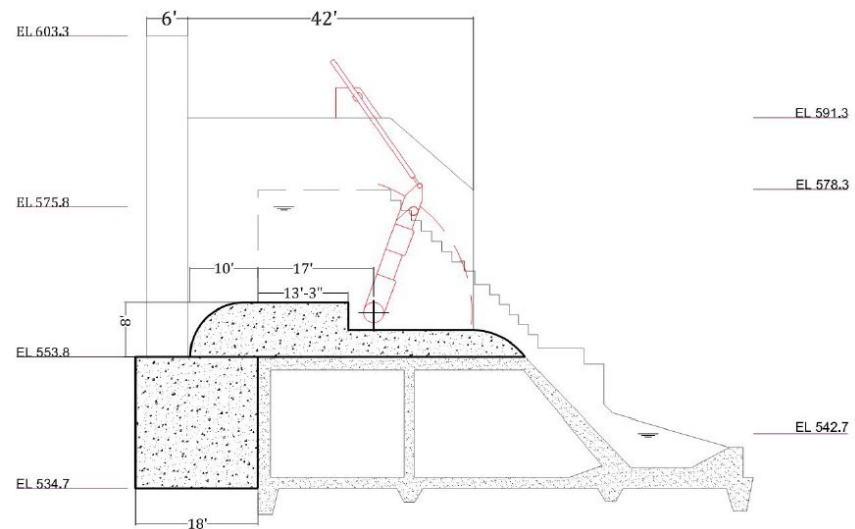
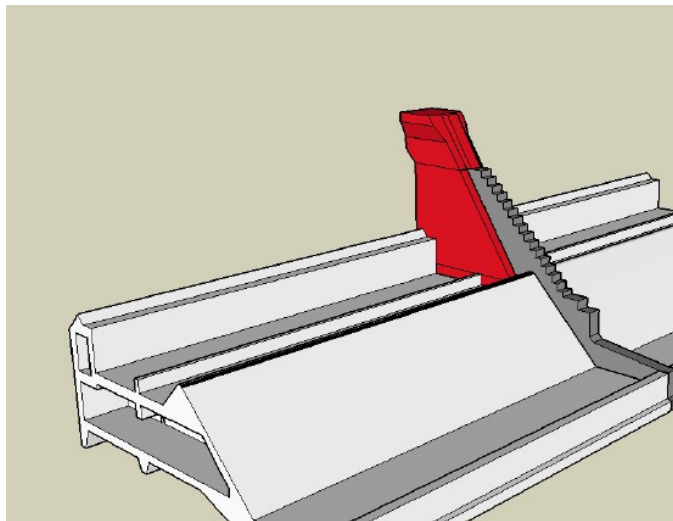
- Key Consideration:
 - Structural Modifications to existing foundation. Any changes impact cost and schedule. Any structural modification during detailed design provides possible risk of cost overruns.

Hydraulic Crest Gate (Cylinder on Top)



Technical Criteria Considerations

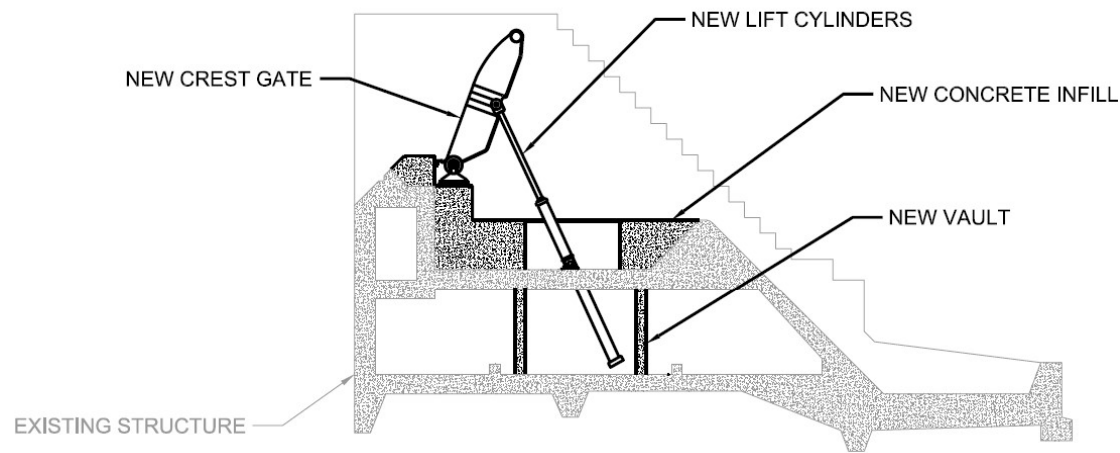
- Structural Foundation:
 - Significant Impact to piers and bottom foundation. Added mass for sliding
 - Concentrated loads at piers cause significant modifications
 - Additional modifications required to pass required flood waters



Technical Criteria Considerations

- Operation: Fully automated through hydraulics
- Known examples in Texas: None
- Operational Concerns:
 - Submergence and vibration forces especially TP-4 Dam (Lake Placid). These issues discovered during replacement of Max Starcke Dam gates (60ft wide gates). 85ft and 98ft wide gates could amplify the issue.
 - Uneven loading of hydraulic cylinders
 - HPU contamination and required flushing of system
 - Hydraulic leaks and part replacement frequently along with environmental concerns
 - Unknown track record of operating this gate design on this specific reservoir
 - Debris damage to system and cylinders
 - Further cost and schedule overruns due to complexity

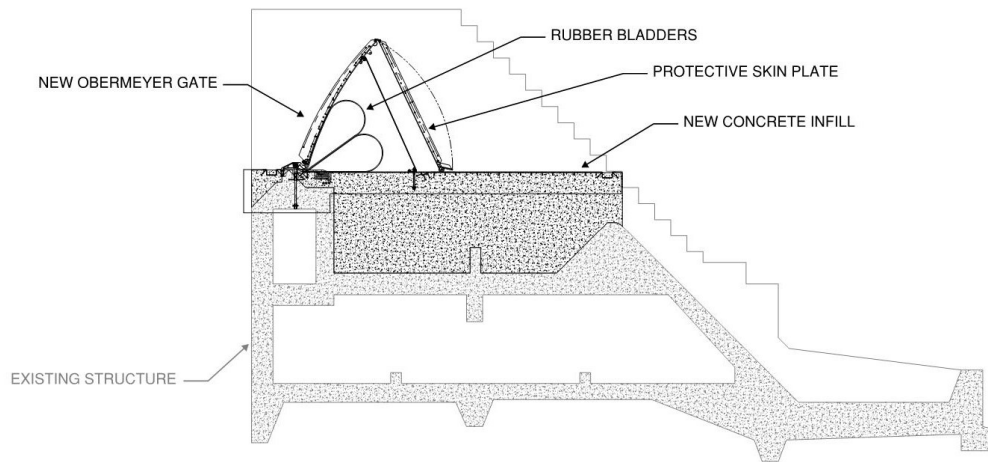
Hydraulic Crest Gates (Cylinder Underneath)



Technical Criteria Considerations

- Structural Foundation: Significant structural modifications plus added mass required. Deemed not feasible by FNI
- Operation: Fully automated through hydraulics
- Known Examples in Texas: Max Starcke Dam, Lake Marble Falls
- Operational Concerns: Same as previous with added sediment issues of cylinders

Obermeyer Gates

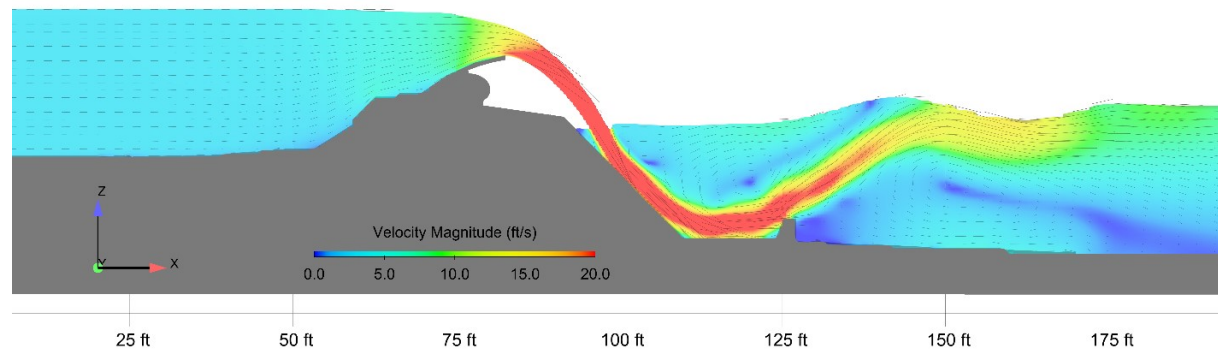


Technical Criteria Considerations

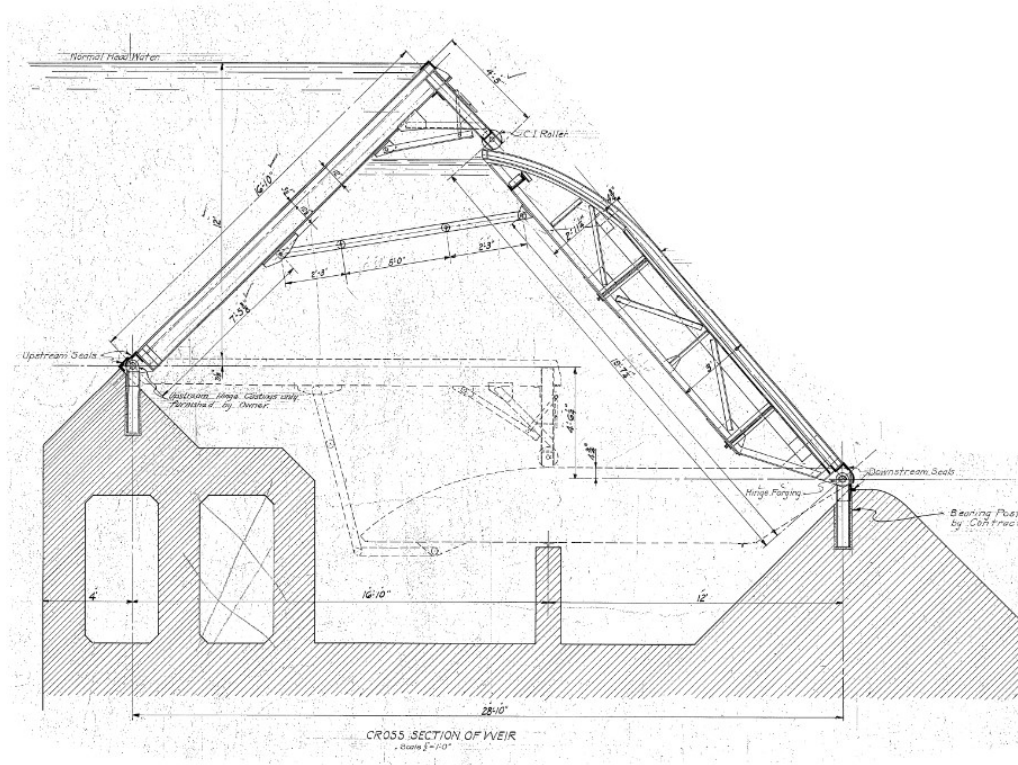
- Structural Foundation:
 - Medium, infill of cavity no structural modifications. Possible large weight of infill could lead to additional modifications
 - Loads evenly distributed along foundation (provides same loadings as bear trap gates)
- Operation: Fully automated using air pressure
- Known Examples in Texas: Bay City Dam where Colorado River dumps into Matagorda Bay

Technical Criteria Considerations

- Operational Concerns:
 - Debris Handling and potential damage to air bags
 - Moving gates 3ft downstream reduces consequence of re-circulation

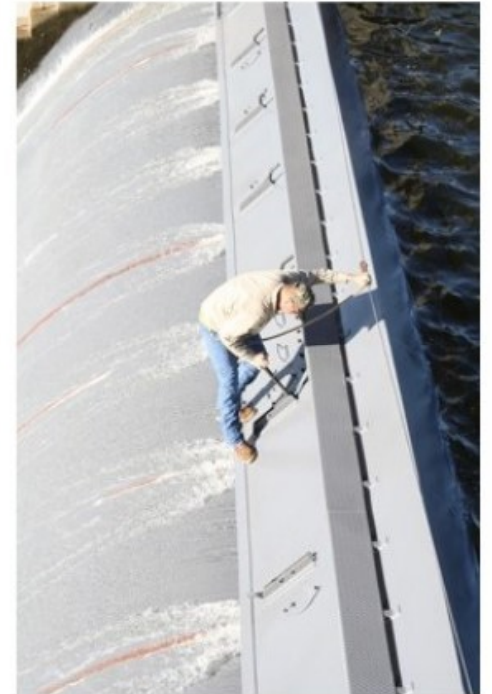


Modernized Bear-Trap Gates



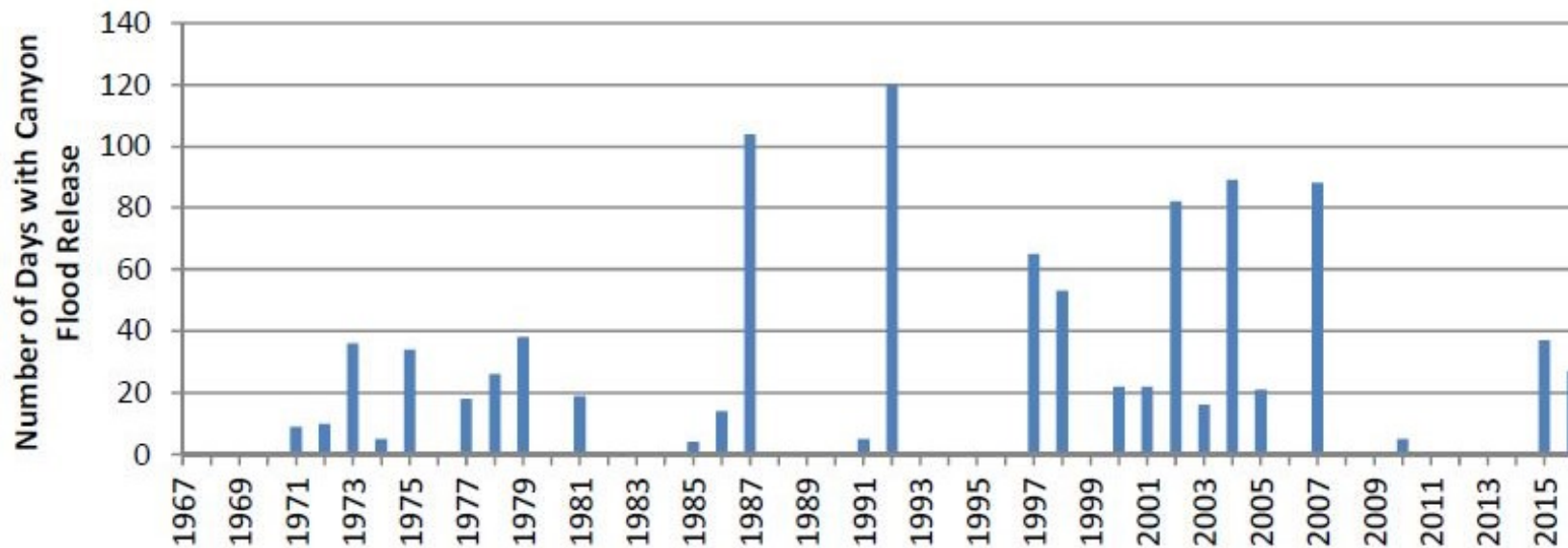
Technical Criteria Considerations

- Structural Foundation: No changes, water in cavity provides extra weight adding stability
- Operation:
 - Manual, pins locked in place (30min operation). Only required for maintenance and inspection
 - Frequency of inspection: every 5 to 10 years
- Known Examples in Texas:
 - GBRA Lakes
 - Possum Kingdom (Morris Sheppard Dam) - bear trap gates chosen to replace existing gates between 1995-2009



Frequency of Operations (Above 1500 CFS)

Figure 1 - Number of Days with Canyon Flood Releases above 1,500-cfs for 1967-2016

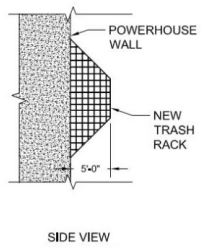
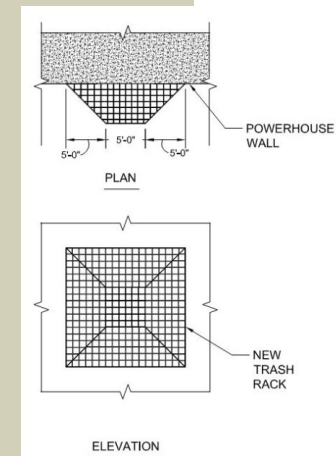
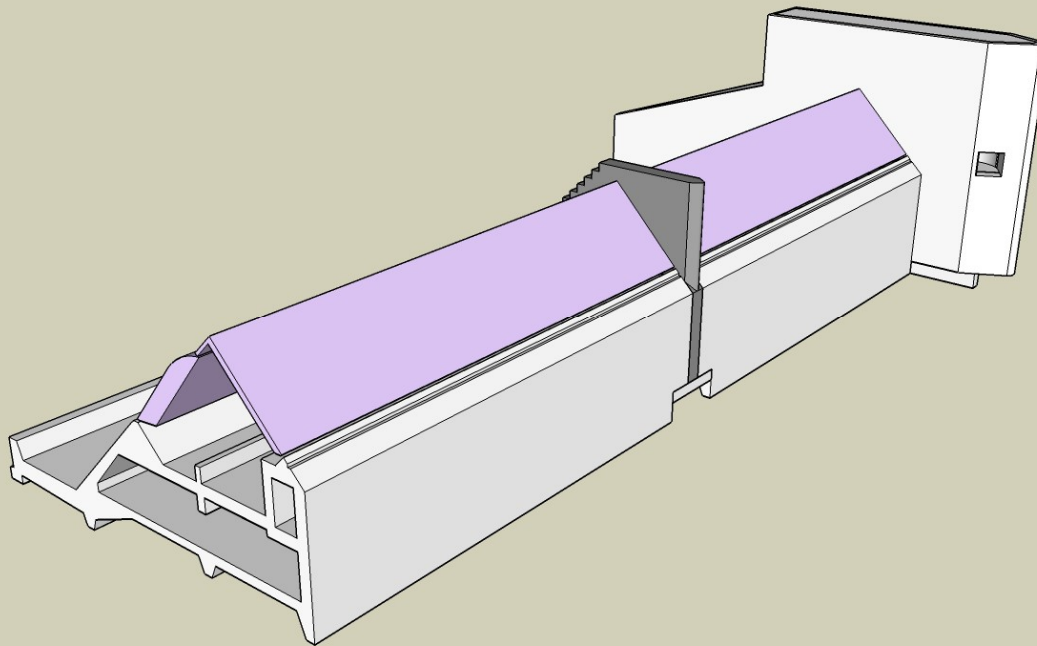


Technical Criteria Considerations

- Operational Concerns (91 year track record):
 - Water intake clogs from debris
 - Secondary intake port
 - Larger screen area to provide less blockage from occurring
 - Debris protection for trash screen using steel deflectors
 - Automated cleaning system for intake port and trash screen
 - Timber damage from debris and weathering
 - Replace with HDPE (suggested). Rot resistant, low coefficient of friction, dimensionally stable and adds no weight, therefore not requiring additional buoyancy
 - Locking bars excessive for to engage
 - New bars with corrosion protective coatings
 - Side seal leakage (All gate options have this concern)
 - Incorporate stainless steel plate along walls and piers
 - Upgraded L shaped rubber seal

Technical Criteria Considerations

- Operational Concerns



Cost Considerations (H5) – Evaluation Stage

	Obermeyer	Hydraulic Crest	Modernized Bear Trap
PM&E	\$887,000	\$1,129,000	\$790,000
Construction	\$4,786,000	\$5,071,000	\$3,277,000
Contingency	\$1,676,000	\$1,775,000	\$1,147,000
Sub-Total	\$7,349,000	\$7,975,000	\$5,214,000
Operation Maintenance (50 years)	\$1,101,548 (\$22,031)	\$1,086,544 (21,731)	\$1,666,922 (\$33,338)
Total	\$8,450,548	\$9,061,544	\$6,880,922

- All numbers come from Freese & Nichols Evaluation Report
- Since beginning detailed engineering, the cost for hydraulic crest gates has substantially grown
- Due to other gate options not requiring significant structural foundation modifications, it is not expected for cost to grow beyond cost projections during detailed engineering. Risk is considered very low.

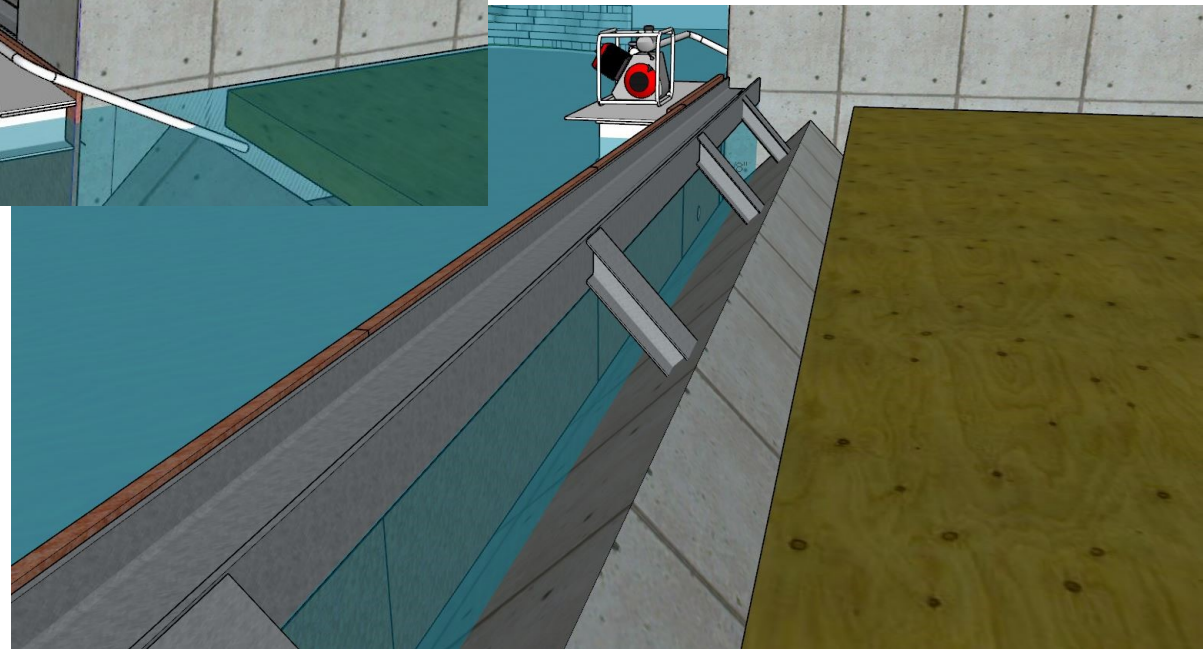
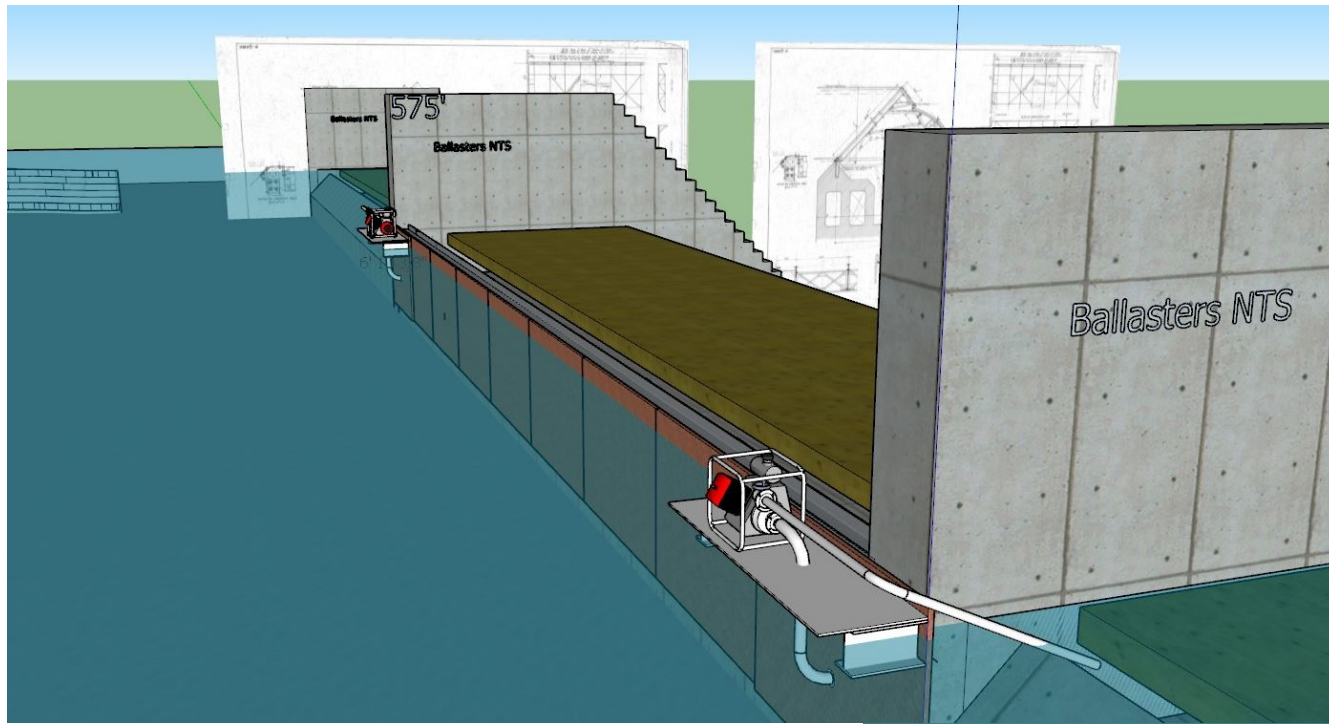
Cost & Schedule Considerations (Nolte) – Current Stage

	Hydraulic Crest (\$ millions)	Modernized Bear Trap (\$ millions)	Cost Difference	
Base Bid	\$20.9	\$6.1	\$14.8	70.8%
w/ Contingency	\$41.8	\$7.8	\$34.0	81.3%

	Hydraulic Crest	Modernized Bear Trap
Schedule	139 weeks (2.7 years)	87 weeks (1.7 years)

Modernized Bear Trap - Optimization

- Contingency – 35%, reduces to \$6.1 million
- Fabrication
 - Reduction of \$552,000 per gate to \$300,000 (\$7,000 per ton x 40 tons)
 - Savings of \$252,000 per gate x 3 gates = \$756,000
- Why replace instead of repair? Hinges require repair and gate requires removal to perform. More economical to just replace.
- Dewatering



Permitting

- TCEQ Regulated - dams not federally regulated (FERC)
- Length of permitting based heavily on changes to foundation.
Modernized bear trap offer no changes making permitting much easier

TCEQ Hardening

- Nolte Dam consists of 2000ft embankment partially armoured
- Current 100yr storm correlates to 100,000 cfs. Current gate capacity is 30,000 cfs approximately only 30% required discharge capacity in accordance with TCEQ
- Study looked at most economical way to increase capacity. The compromise was a hardening of the embankments with concrete. This way if flood waters top the embankment no damage to the dam would occur
- However, no embankment issues in 91 years of operation even with the large floods never designed for
- TCEQ would like to see the dam upgraded in the future. Federal and state funds maybe available for this + Long Term Solution for the dams would accomplish this (James Lee Murphy)

TCEQ Hardening



Financing of Dam

- ▶ Legal Action
- ▶ Financing Options
 - ▶ Taxing District
 - ▶ City Property Tax Increase
 - ▶ Taxing District + City Property Tax Increase
 - ▶ GBRA
- ▶ Partnerships Required to Work
- ▶ Paradigm Shift in Lake Use
- ▶ Long Term Plan for Dams (James Lee Murphy)

Legal Action

- Members to support
- Will send petition for all to sign



[J. Douglas Sutter](#)

713.595.6000 Phone

713.595.6001 Fax

dsutter@ksklawyers.com

WHAT IS YOUR PROPERTY WORTH?

50% Reduction in Property Value:

- \$800,000 -> \$400,000
- \$400,000 -> \$200,000
- \$200,000 -> \$100,000



Financing Options – Option 1

- Taxing District Process (Brent Hammond)
- Taxing District Inputs:
 - Hard Cost: \$7,800,000
 - Set-up Cost: \$250,000
 - Bond: 30 year, 2.25% interest (AA rating assumed)
 - Annual Operating Cost: \$90,300
 - Total Annual Cost: \$460,034
- Taxing District Annual Cost per Owner:
 - \$4,144 average per home owner (111 property owners)
 - \$708 per \$100,000 of property value (City Tax Rate is \$541 per \$100,000)

Financing Options – Option 2

- Raise City Property Tax Rate:
- Inputs
 - Hard Cost: \$10,000,000 (\$2,200,000 for Community Development)
 - Set-up Cost: \$100,000
 - Bond: 30 year, 2.25% interest (AA rating assumed)
 - Annual Operating Cost: \$50,000
 - Total Annual Cost: \$700,495
- Annual Tax Rate Increase:
 - \$0.5412 to \$0.5694 – Just over \$0.02 per \$100
 - \$541 to \$562 – Just over \$21 per \$100,000 of property value
 - Represents a 3.9% increase, allowable without voter approval. Capped at 8% per Texas Law before needing voter approval (to be verified)

Financing Options – Option 3

- Taxing District + Raise City Property Tax Rate:
- Taxing District Inputs
 - Hard Cost: \$3,000,000
 - Set-up Cost: \$250,000
 - Bond: 30 year, 2.25% interest (AA rating assumed)
 - Annual Operating Cost: \$90,300
 - Total Annual Cost: \$239,571
- Taxing District Annual Cost per Owner:
 - \$2,158 average per home owner (111 property owners)
 - \$369 per \$100,000 of property value (City Tax Rate is \$541 per \$100,000)

Financing Options – Option 3, cont'd

- City Property Tax Rate Inputs:
 - Hard Cost: \$7,000,000 (\$2,200,000 for Community Development)
 - Set-up Cost: \$100,000
 - Bond: 30 year, 2.25% interest (AA rating assumed)
 - Annual Operating Cost: \$50,000
 - Total Annual Cost: \$376,100
- Annual Tax Rate Increase:
 - \$0.5412 to \$0.5562 – Just over \$0.02 per \$100
 - \$541 to \$556 – Just over \$15 per \$100,000 of property value
 - Represents a 2.8% increase, allowable without voter approval. Capped at 8% per Texas Law before needing voter approval (to be verified)

Financing Options – Option 4

- GBRA Pays: \$8 million (\$30,600 per linear ft)
- In 1980s GBRA subordinated water rights of the hydroelectricity from non-consumptive to consumptive. The water sales division was built on the back of the hydroelectric system. Lucrative water rights in the 80's only become more lucrative as time has passed

Partnerships Required

- Government Entity (Taxing District) - Guadalupe County / City of Seguin -> MLNDA
 - Engineering Consulting Firm – Design of Gates, Stantec
 - Private Investor - Hydroelectric System and Spillgate O&M
 - Power Sales Provider – GVEC
 - Community Development – Stantec / Private Developer
 - Funding Partner - GBRA
- All of the above have to be aligned with same goals and objectives
- MLNDA to help foster and organize partnerships
- Refer to 4 Lakes Task Force (Michigan) for blueprint on solving

Loss to City & County

Property Value		City Taxes (\$0.541 per \$100)	County (\$0.3309 per \$100)	Lateral Road (\$0.510 per \$100)	Seguin ISD (\$1.3750 per \$100)
\$64,961,063	\$1,790,910	\$351,439	\$214,956	\$331,301	\$893,214
\$32,480,532	\$895,455	\$175,720	\$107,748	\$165,651	\$446,607

Meadow Lake are the only property owners that pay both City and County taxes.

Paradigm Shift in Lake Use

- Community Development



Community Development Cont'd



Community Development (City of Seguin)



Seguin Public Library



Walnut Springs Park

Community Development (City of Seguin)

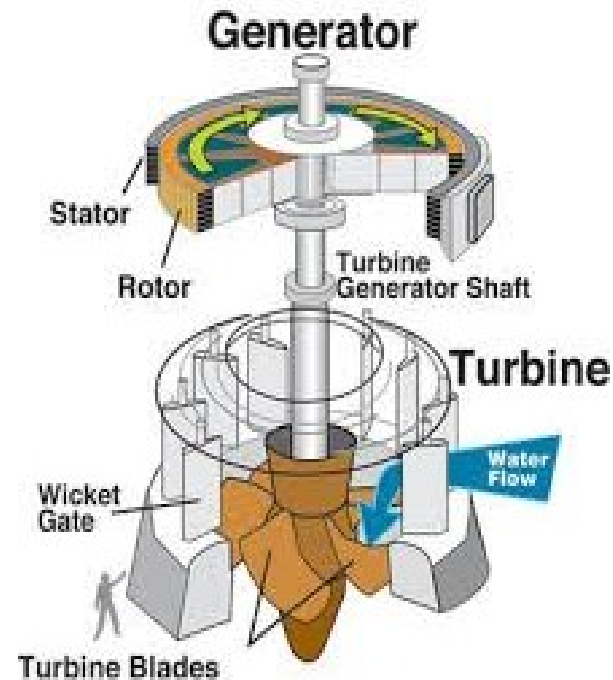


Park West



Paradigm Shift in Lake Use

- Educational Opportunities: Work with local schools and universities to educate about working hydro system built in the 1930's



Economic Development for Area

- Modernized Bear Trap Gates – allow for fabrication, construction and installation by local community. Hydraulic Crest gates would be built up North or in Canada. Built by Texans for Texans!
- Hydroelectric System would supply approximately 1200 to 2000 homes with clean renewable energy – bring jobs that would have otherwise been eliminated by automation or no dam
- Recreational Activities
- Further economic development along the lake including homes and restaurants, and increase of existing property values

Long Term Plan for Dams

- Introduce Mr. James Lee Murphy

Path Forward

- ▶ Stop the Drain
- ▶ Board of Directors
- ▶ Members
- ▶ Budget
- ▶ Fundraising



Stop the Drain

- Legal Action (Robert Raetzsch to Update)
 - Sutter – TRO/TI
 - Cedillo – straight to TI
- Support both lawsuits
- Demand economic and environmental study performed

Board of Directors

- Meeting with the following:
 - City of Seguin
 - Engineering Consultant – Stantec
 - Chamber of Commerce
 - Guadalupe County
 - Private Investor
 - GVEC
 - Seguin School District Board
 - Confirm budgeted numbers presented
 - Cost of Modernized Bear Trap Gate Replacement -> Stantec
 - Confirm GBRA Contribution

Members

- Join Sutter Lawsuit
- Spread word on membership – all are welcome
 - Contact Sydney Burton & Janet Hudson
- When requested and organized by Board, show support to City Council and Guadalupe County
- Join Committees
- DONATE
- Continue to contact local and state representatives weekly

STATE

Governor Greg Abbott

@GovAbbott

Chief of Staff: Luis Saenz

(512) 463-1762 x 38284

<https://gov.texas.gov/contact>

Senator Donna Campbell

@donnacampbellTX

830-625-0065 - NB

(512) 463-0125 - Austin

donna.campbell@senate.texas.gov

Senator Judith Zaffirini

@judithzaffirini

judith.zaffirini@senate.texas.gov

(956) 722-2293 - Laredo

(512) 463-0121 – Austin

Representative John Kuempel

john.kuempel@house.texas.gov

830-379-8732 - Seguin

(512) 463-0602 - Austin

COUNTY

Guadalupe County Judge Kyle Kutscher

(830) 303-8867

Kyle.Kutscher@co.guadalupe.tx.us

Comal County Judge Sherman

Krause

830-221-1105

krause@co.comal.tx.us

CITY

Seguin Mayor Don Keil

@donkeil

(830) 379-3212

dkeil@seguintexas.gov

New Braunfels Mayor Barron Casteel

@barroncasteel

(830) 832-6899

mayor.nbtexas.org

Budget

Property Value		City Taxes (\$0.541 per \$100)	County (\$0.3309 per \$100)	Lateral Road (\$0.510 per \$100)	Seguin ISD (\$1.3750 per \$100)
\$64,961,063	\$1,790,910	\$351,439	\$214,956	\$331,301	\$893,214
\$32,480,532	\$895,455	\$175,720	\$107,748	\$165,651	\$446,607

Meadow Lake are the only property owners that pay both City and County taxes.

Budget

Description	Cost
<u>Required Cost:</u>	
Legal	\$5,000
Lobbying	\$10,000
Economic Impact Analysis Study - \$25,000	<u>\$12,500</u> (split half w/ City of Seguin)
Initial Cost:	\$27,500
<u>Possible Cost:</u>	
Taxing District	\$80,000
Engineering Consultant	\$30,000
Communication & Grant Writing	<u>\$10,000</u>
Possible Cost:	\$130,000

Fundraising

- Fundraising Events (Molly Kelley & Eilen Thedford)
 - Last Weekend on the Water
 - Selling t-shirts & koozies to raise money
 - September 7th, Meadow Lake Resort
- All proceeds will go to expected cost previously listed

Election of Remaining Board Members

- ▶ Remember order of Precedence:
 - ▶ 2 members from each Zone
 - ▶ 2/3 Property Directors
 - ▶ Remaining seats open to all
- ▶ Looking for:
 - ▶ 1 more member from Zone 3
 - ▶ Possibly 2 Associate Directors



QUESTIONS & ANSWERS

► Chair - Jenny Hammond



ADJOURN

