

CONCERNS ABOUT THE PROPOSED REMOVAL of CAPES DAM San Marcos River, San Marcos, Texas

1. Lack of Peer Review of Impact Predictions.

The impact to the three endangered species - fountain darter (*Etheostoma fonticola*), San Marcos gambusia (*Gambusia georgei*), and Texas wild-rice (*Zizania texana*) - and their federally designed critical habitats have not been thoroughly reviewed in an open and transparent process that would be afforded through the EPA's National Environmental Policy Act (NEPA) review process and additional, more formal, state-level processes.

We believe it is wrong too assert that there will be no significant impact on federally-protected, endangered species or their critical habitats based on one point of view presented in a document that has not been peer reviewed. As shown in **Attachment B**, there are conflicting scientific and expert opinions that have *not* received consideration. (Please watch 4 minute video from University of Texas at Austin integrative fish biologist Dr Molly Cummings at https://www.youtube.com/watch?v=D_jhnOK2sW4). The lack of peer review is particularly concerning given previous comments of the National Research Council as well as the National Academies of Science (**Attachment B**). These facts all point to the need for an independent scientific assessment of the ecological impact of dam removal.

The primary basis for the removal of the dam is a report commissioned by the City of San Marcos, owner of the dam, performed by Watershed Systems Group, Inc. The President and Lead Scientist for this company is Dr. Thomas Hardy, a biologist currently employed by Texas State University and its flagship research institution The Meadows Center on Water and the Environment (**Attachments H & I**). These reports have a number of apparent discrepancies and potential errors that raise reasonable questions about the predicted impact of dam removal, including comparative images that change scale & aerial extent and final assessments that differ – despite using the same data.

Additional concerns have been raised over the finding of a 2004 report (**Attachment N**), which also includes Thomas B Hardy as one of its co-authors, whose Executive Summary unequivocally states:

“However, for Fountain Darter the loss of the dam results in a reduction of habitat by approximately two thirds at all flows for the modified geometry and existing vegetation distribution.”

In August 2014 the USFWS Project Leader for Texas Fish and Wildlife Conservation Office in San Marcos, TX, wrote to confer his support in the disposition of Capes Dam, relying only on the Watershed Systems Group report, commissioned by the City of San Marcos, as the basis for his decision (**Attachment J**). This letter fails to note that Watershed Systems Group's report has not undergone rigorous peer-review, as well as reaching contradictory results that were earlier concluded by the same scientist.

Furthermore, this letter offers federal funding for the project, which would require a more formal review of the project than is occurring here. This process needs an independent assessment for greater transparency and objectivity both now and beyond the project (e.g., monitoring for

compliance, etc.).

It is noteworthy that a previous report from Dr. Hardy dated January 17, 2012 clearly states restoring the dam is better for the Fountain Darter. (**Attachment K**, Page 13 – highlighted in yellow.) See Pages 14-15 of **Attachment K** for “conclusions” that are stated as “would [be] likely” to happen “Even though our modeling results did not suggest substantial increases in Texas Wild Rice of fountain [darter] habitat upstream of Cape's Dam with the partial or complete removal of the dam, we believe removal of the dam would still be substantially beneficially...”

Clearly, the predictions of ecological impacts from the removal of Capes Dam need to be scrutinized in an impartial review process taking into account diverse points of view, as required through the National Environmental Protection Act (NEPA) Environmental Impact Statement (EIS).

2. Errors in Project Specification.

There are differences in physical 2D, 3D, and water hydraulic measurements of Capes Dam for what should be the same values in USFWS presentations and permit requests. Measurements from our group, Save The SMTX River and National Register of Historic Places (NRHP) have the **dimensions of the dam much larger** than dimensions being used by the City of San Marcos (owner of the dam) and what was reported on the application to TPWD's Sand and Gravel Permit (**Attachment C**), as well as on TCEQ's Information Sheet: Proposed New Construction, Modification, Repair, Alteration, or Removal of a Dam (**Attachment D**).

It is important to note that the measurements of Capes Dam were supplied by USFWS to the City of San Marcos, and that City Manager Jared Miller signed a sworn affidavit that the figures were complete and accurate (**Attachment C**, Page 5.)

- a. A public records request reveals that the application to TPWD for their Sand and Gravel Permit was *reduced* from an original estimate of **1060 cu. yds. to 990 cu. yds.**, a change **resulting in a change in permit status type and avoiding the need to file an Individual permit (Attachment C).**

This change on the TPWD's Sand and Gravel Permit Application dated May 18, 2016 from an original estimate of 1060 cu yds to 990 cu yds, occurred after email exchanges beginning May 10 through May 25, 2016 between Tom Heger of TPWD and Mike Montagne of USFWS beginning May 10 to May 25, 2016, where TPWD advises USFWS: “For projects disturbing less than 1,000 cubic yards of material (General Permit) the notice needs to appear in the paper only one day.” (See pages 22-23 of **Attachment C**.)

Not only was USFWS able to circumvent a longer notification period required by projects larger than 1,000 cu yds, USFWS by amending its written, submitted, notarized & acknowledged Individual Sand & Gravel Application to a Project Size smaller than 1,000 cu yds, USFWS was able to:

- **Change from an “Individual” permit to a “General” permit** after received a notarized & acknowledged statement from the City of San Marcos City Manager, Jared Miller, attesting to the accuracy of all information contained in the permit;
- **Omit holding an open public information session** where the public can comment on the

- proposed removal of Capes Dam;
- **Omit a direct Mail-out to all landowners within ½ mile** of Capes Dam, notifying them of the removal;
- **Omit 3 days public notification** in newspapers and at the County Courthouse;

This discrepancy in Project Size needs to be resolved using documented values for the size of Capes Dam. *How can USFWS submit an application with critical mistakes of physical size?*

b. A public records request reveals that the application to TCEQ for their “Information Sheet: Proposed New Construction, Repair, Alteration, or Removal of a Dam” is wholly-deficient with respect to Section 4: Hydrologic Information.” (**Attachment D**) since not a single hydrologic value is given for Capes Dam; all are marked “N/A.”

Directly attributable to USFWS inaccurate presentations of physical measurements has lead to TCEQ's decision that “we [TCEQ's Dam Safety Program division] **determined that the structure did not meet the definition of a ‘dam’ in our rules; therefore, no further review was made nor is required by TCEQ.**” (**Attachment E.**)

c. Another example of the types of incorrectly measured figures that have found their way from USFWS reports to other statutorily-required documents required to remove a dam from a public water-way in Texas: Capes Dam height was labeled as only 3.7 ft. & and only 105 ft. long using measurements by USFWS North Dakota-based engineer Wayne Stancill. Current *documented* measurements put Capes Dam height at 9 ft tall and 168' ft long, a 143% increase in height and 60% increase in length. (See **Attachment A**, page 4 for these documented measurements).

In view of these apparent errors and discrepancies, we believe the specifications for this project need the kind of impartial scrutiny that would be afforded by a full NEPA/EIS review process.

3. Historical Significance Ignored.

Capes Dam is an historic site and is classified as eligible to be on the National Historic Register since 1985. **Attachment F** is the Texas Historical Commission's (THC) Request for SHPO Consultation, as per Section 106 of the National Preservation Act.

From the SHPO Consultation (Section 106 Application) of the Texas Historical Commission submitted by USFWS, the historical nature of Capes Dam was marked “**Unknown.**” USFWS did not bother to make the necessary inquiries to determine Capes Dam history before submitting this statutorily-required document.

Attachment F, Page 5-6 shows the letter dated July 11, 2016 Mike Montagne of USFWS received from Michael Robb on behalf of Mark Wolfe, State Historic Preservation Officer of the Texas Historical Commission formally notifying USFWS (emphasis added):

“Based on submitted documentation and a site visit made June 21, 2016, the THC anticipates the proposed project will constitute an adverse effect on a NRHP listed-or-eligible resource. Section 106 regulations require ongoing consultation with the SHPO and the public to develop

and evaluate alternatives to avoid, minimize, or mitigate adverse effects to historic resources. As completed plans become available, please submit them to THC for review in order to evaluate them for the extent of the adverse effect as well as to evaluate potential mitigation measures.

The Archaeology Division staff, led by Tiffany Osburn, has completed their review of the proposed project. Based on the submitted general plans, the site visit made on June 21, 2016, and discussion with USACE, the Archaeology Division requires additional information to determine the level of archaeological investigation that will be required in areas that will be affected by the proposed project. Additional information is necessary regarding the anticipated direct and indirect effects of de-watering the mill race channel including bank erosion and instability due to loss of vegetation, etc. We also need detailed information regarding the location of additional project impacts such as proposed points of ingress and egress, grading, plantings, vegetation/tree removal etc. At a minimum we anticipate the need for archaeological survey along the mill race. We look forward to further consultation with your office and hope to maintain a partnership that will foster effective historic preservation. Thank you for your cooperation in this federal review process, and for your efforts to preserve the irreplaceable heritage of Texas."

The correct processes for removal of an historical structure should be initiated and followed

(**Attachment G**, Page 5 – TCEQ Dam Removal Guidelines, Stakeholder Section, Historical and Archaeological Review.) Note that all highlighted paragraphs of this simple brochure are areas that have **not been addressed** in removal of Capes Dam. This is because of TCEQ's reliance on incorrect and omitted data from their statutorily-required Information Sheet – incorrect & inaccurate **information which was filed by USFWS** - which allows TCEQ to decide Capes Dam, which for 150 years has been called "a dam," is not actually a dam, and is therefore, technically, not under TCEQ's jurisdiction (**Attachment E**).

It is worth noting that there is another, historic, abandoned grist mill from the late 1800s to early 1900s at the junction of the San Marcos River and Willow Springs Creek (located on the Northwest corner of the USFWS Fish Hatchery property along the San Marcos River.) The abandoned grist mill is located about 250' along strike to what appears to be an active artesian spring located on Thompson's Island, just south of Capes Dam, in line with Willow Spring Creek, pumping an estimated 50 gallons/minute. This spring is not indicated or noted on any USFWS study or paperwork. It would be a tragedy to damage this artesian water source by neglecting to note its existence on any USFWS study, map, project area, or permit.

4. Consideration of Recreational Usability

The pristine water protected by Cape's Dam, and similar structures throughout the town is what San Marcos is known for. All of the outfitters in San Marcos depend on Cape's Dam to create safe passage around Thompsons Islands, and want to see it preserved. To remove Cape's Dam effectively dries out the Mill Race – the most used channel of the river at Thompsons Islands. It does not make sense to remove Cape's Dam only to build another dam adjacent to it which cuts off all water flow around the North side of Thompsons Islands.

The river flow directed into the Mill Race below Capes Dam creates a long stretch of slow moving water above the historic Thompson's Falls structure that notably enhances the recreational usability of the river here. Removal of the dam means this beautiful river channel will cease having water flow into it, and it will become stagnant, as it already has just one week after a major flood of Sept 26, 2016. This flood further eroded Capes Dam, meaning more water is going into the San Marcos River at the expense of the Mill Race. Capes Dam also creates a long stretch of deep and slow moving water upstream that will become less usable for recreation if it is removed. The Watershed Systems Group Reports (**Attachments H & I**) does not adequately address these consequences of Capes Dam removal.

Swimming will be made more hazardous upstream of the dam if the water level goes down and the current velocity increases. Furthermore, the swimming hole below Thompsons Falls will be ruined when the Mill Race feeding it is blocked and drained. This a precious place beloved to many long-time users that the family who donated this property expected to be preserved, opened to the public for recreational uses.

The long stretch of slow moving water between Capes Dam and Thompsons Falls is both a habitat for endangered fountain darter and San Marcos gambusia, and a prime fishing location that is heavily used by anglers. The record black bass for the San Marcos River was caught here. Blocking and draining this part of the river will destroy this important recreational resource.

The slow water upstream and downstream created by Capes Dam enables canoes, kayaks and stand-up paddleboards to be safely used in this part of the river. Many youth groups and recreational river users depend on this feature to securely navigate the river here. Furthermore, the Olympic Outdoor Center is located on the slow moving section of the river upstream from Capes Dam and its suitability for entering and using the river will likely be irreparably harmed if the dam is removed. This will destroy the locally-owned businesses providing *affordable* recreational uses, *other* than tubing, in sections of the river downstream from TSU-owned & operated Spring Lake Dam and Spring Lake.

For the general public, who are not students, faculty or staff of Texas State University, recreational activities *other than tubing* are offered by two primary companies: the Olympic Outdoor Center and TG Canoe & Kayak. The river users served by these private companies include much of the San Marcos-based public, many if not most San Marcos visitors, tourists, whitewater athletes, and both active duty soldiers and veterans involved in recreation therapy programs. It should be noted that from a safety perspective TG Canoe & Kayak only allows their canoes to go down the Mill Race to avoid accidents and injuries.

According to Watershed Systems Group (**Attachment J**), removal of Capes Dam would lower water depths in the upstream section to below the 4 foot minimum for safe stand-up paddleboard yoga, eliminating opportunities for that fast-growing new form of aquatic recreation. Removal of the dam will also make the river run much more swiftly here. This will combine with the lower water depth to eliminate the easy river access for handicapped veterans and safe area for instruction that is presently available here.

Veterans, especially wounded veterans, have a special need for the calm water created by Capes Dam. Ben Kvanli, former 1996 Olympian (kayaking) and owner-operator of the Olympic Outdoor

Center commented:

“Capes Dam was on the [front page of the New York Times](#) when wounded Marine Sebastian Gallegos ran the waterfall with only one arm. [See [Attachment L](#), Page 6] It was in the [Express News when veteran and bilateral amputee Andy Soule used it for his training grounds to win a bronze medal in the 2010 Paralympics](#). These guys didn’t think that they could get back in the water again, much less excel at a watersport after they suffered their amputations. What they learned very quickly was that they were in fact better than most people with all of their limbs. Sebastian was super quick because he primarily had to use his core to move the boat, and Andy just lit up whenever he was in his boat because no one knew that he didn’t have any legs so they treated him like he expected them to instead of like a charity case. They both used Thompson’s Island like a track to train for their competitions going down over Capes and back via the Mill Race.”

Although there has been widely circulated misinformation regarding costs, there are reasonable alternatives to removal of Capes Dam that need to be explored. One option many of our supporters would prefer is repair and enhancement of the dam in a way that preserves the river structures we currently have, but makes the dam safer and more attractive for recreational use by kayakers and canoeists. The (not peer reviewed) modeling that is cited by the City of San Marcos and USFWS supporting dam removal did not include this possibility. We strongly believe enlightened repair and improvement plans should be elaborated with cost estimates and more thorough deliberation of these alternatives should be undertaken.

Illustrations of recreational usability that will be lost if Capes Dam is removed are provided in [Attachment L](#), along with illustrations of alternative actions that we want to be considered in a full NEPA EIS assessment.