

<p style="text-align: center;"><b>YANKEE SPRINGS TOWNSHIP</b>  <b>Informational</b>  <b>MEETING</b>  <b>Cuddy Intercounty Drain</b>  <b>Tuesday, September 15, 2015</b></p> <p style="text-align: center;"><b>Yankee Springs Township Hall</b>  <b>284 North Briggs Road, Middleville, Michigan 49333</b>  <b>7:00 p.m.</b>  <b>MINUTES</b></p>	<p><b>FINAL MINUTES</b>  Approved as presented  As Information  October 8, 2015</p>
<p>Meeting called to order at 7:00 PM by Mark Englerth</p> <p><b>Staff/Board Members present:</b> Roger Rottschafer, Mark Englerth, Alice Jansma, John Jerkatis, Rich Beukema, Bruce Campbell</p> <p>Also present:</p> <p><b>Dan Fredricks</b>, Land &amp; Resource Engineering Inc.  <b>Russ Yarger</b>, Barry County Drain Commissioner.</p> <p><b>Visitors:</b> 42 (not including board members or staff present)</p>	<p><b>CALL TO ORDER</b></p> <p><b>ROLL CALL</b></p>
<p><b>Introduction by Mark Englerth, Yankee Springs Township, Supervisor</b></p>	<p><b>Introduction of Speaker</b></p>
<p><b><u>Dan Fredricks, Land &amp; Resource Engineering Inc., Powerpoint Presentation (now available on the Township Website: <a href="http://www.yankeespringstwp.org">www.yankeespringstwp.org</a>)</u></b></p> <p><b><u>Presentation Overview</u></b></p> <ul style="list-style-type: none"> <li>• Current Petition/Project Goals</li> <li>• Existing Conditions</li> <li>• Proposed Project Scope</li> <li>• Preliminary Cost Estimate</li> <li>• Preliminary Apportionment</li> <li>• Project Schedule</li> <li>• Questions/Comments</li> </ul> <p><b><u>Current Petition/Project Goals</u></b></p> <ul style="list-style-type: none"> <li>• <u>Current Petition found “Necessary” on 2/5/2014</u></li> <li>• <u>Project goals:</u></li> <li>• Prevent flooding on developed property.</li> <li>• Limit debris delivery to navigable channel/Gun Lake</li> <li>• Limit sediment delivery to navigable channel/Gun Lake.</li> <li>• Prevent or Minimize E-Coli contamination.</li> <li>• Estimated Project “Fair and Equitable.”</li> </ul>	<p><b><u>Dan Frederick, Land &amp; Resource Engineering Inc., Powerpoint Presentation</u></b></p> <p><b>Page 1 of 8</b>  <b>Info. Cuddy Drain Mtg.</b>  <b>9.15.15</b></p>

**Existing Conditions – E. of Patterson**

- Sediment Transport is a natural process
- Annual sediment load is approx. 400 cubic yds.
- Routine maintenance dredging required every 25 to 30 yrs.
- Approximately 250-ft. long Sediment Bar (Sand) downstream of Patterson Road.

**Proposed project Scope- Aerial view presented**

**Proposed Dredging – Cuddy-**

\*taking out about 10,000 cubic yds. of clean, > 90% Granular (Sand) Material

**Prop. Dredging – Channel Dimensions**

Dredge to Historic “Hard Pan”– Bottom ~739-Ft. (NAVD 88) ~5-ft. below Legal Lake Level

- Channel Top Width~80-ft.
- Prop. 20-ft. (min.) Bottom Width with tapered Side Slopes to meet Sea Walls.
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**Prop. Dredging – Island Drive channel** – \*permit has been secured

- 4,000 cubic yards of clean sediment to be removed,>90% Granular (Sand) Material
- Separate from Intercounty Drain Project

**Quality Control/ Assurance**

- Contract will be Awarded to lowest Qualified bidder
- Contractor shall be Bonded.
- Pre- and Post-Construction survey to determine dredge quantity.
- On-Board GPS and Density Gauge.
- On-site Inspection by Engineer.

**Dredge Disposal Site – Aerial view** formerly the Lettinga property/VanDenack

**Dredge Disposal site**

- 4.8 acres Temporary Easement
- 1.2 acres permanent easement

**Re-establish Sediment Basin**

- Constructed in 1991 between First St. and Patterson Ave. (Sweeney Property ) to reduce sediment delivery to Navigable Channel
- Designed to capture 90% of supplied sediment load
- Maximum Capacity of Sediment Sump~450 Cubic Yards
- On-Site Disposal Area Exhausted
- Utilize New Permanent Easement for Disposal

**Patterson Rd. – Culvert Replacement**

Existing crossing hydraulically undersized, perched and in poor condition.

(Side notes: Box culvert will replace existing culvert. Retaining wall will be built as platform for culvert. Placement will hold the stream bed in place.)

**Audience questions** (There will be more questions from audience - later in the meeting):

**Mr. Bos, Yankee Springs Resident** inquired concerning downspout which leads into building up sediment- asking if water would cause an “island” further down in channel. Dan Fredricks commented that the installation of new culverts will not create the same effect (nozzle effect which increases the velocity) as existing culverts, but will improve that situation.

**Bill Baughman** inquired on the depth of the sheeting. Fredricks commented that it would go down at least 20 feet.

**Unidentified speaker:** Regarding just East of Patterson, speaker wanted to know if there would be a 5 foot level rather than a deeper hole to catch the sand (that exists now). Fredricks mentioned a pipeline/transition line that is approximately 100 feet downstream. Fredricks commented that a sump will be dug out that will take some time to fill up.

**Water Quality concerns – E. Coli – (Deb Masselink helped collect a lot of data for this.)**

- *E. Coli* Monitoring Report completed by Streamside Ecological with help of “Friends of the Cuddy”.
- *E. Coli* concentrations exceed WQS (Water Quality Standards) for PBC (Partial Body Contact) and TBC (Total Body Contact). Gardner contributes highest *E. Coli* Loads.
- Potential sources: Human waste, Agricultural Practices, and Wildlife
- MDEQ to list Cuddy on 2016 Integrated Report for Impaired Water Bodies of the State – (now the Cuddy will be eligible for grant funds).

\*Deb Masselink commented that *E. Coli* numbers have dropped. Manure fertilization by a farmer has stopped in that watershed area (for two years now). D. Masselink commented that Cuddy Channel should be safe enough in the future.

**Preliminary Project Cost Estimates**

**Cuddy Intercounty Drain**

Prelim. Engineering Study/ E. Coli Study - \$20,000  
Gardner Drain (Allegan County) \$55,000  
Drain Improvements, West of Patterson - \$165,000  
Sediment Basin - \$50,000  
Dredging Navigable Channel - \$380,000  
Dredge Disposal - \$175,000  
Patterson Road Culvert Replacement \$330,000 (1/2 ACRC)

**\*Preliminary Estimate of Project Cost ~ \$1.2 M**

\*Note- Does not include Legal, Administrative, Permitting, Mitigation, Remediation or Financing Costs.

**Questions:**

**Audience question:** An unidentified person asked if the dredge can be any deeper – it was 8 foot at one time. D. Fredrick spoke out of the added cost.

**Mr. Bos, YS Resident** –wanted to talk about the Dam. Mr. Bos asked if Gun Lake is paying for dam, why isn't the lake paying for the channels?

**Mark Englerth, Supervisor** – noted that back in the 1950s - it was an agricultural drain/and became a recreational drain. Rules from back then stated anytime a drainage district goes under a highway or county road then the drainage district would pay a portion of it and the road commission would pay half for it. The project has been broken down into parts. Actually dredging the navigable stream is another part of it. The drain commissioner or farmers don't need to float a boat up and down the stream. It is a benefit for those who live on the recreational end of the drain. Each and every one of the parts has been broken down. Englerth commented that the channel he lives on needs to be dredged. The people that live on the channel are going to pay for the dredging portion of the channel. The Road Commission piece and the box culvert is being done the same way as every county in the state of Michigan. The rest of it, the sedimentation trap and the maintenance of the existing agricultural drain, the lion's share is going to be on Allegan County's side of it.

**Dan Fredricks** added that before this was a channel it was an agricultural drain. It was legally established to the point where it enters Gun Lake and goes up to the western part up into Wayland Township. Now, the way the drain code works, all the lands (Boot Lake, Gardner Drain, etc.) that contribute water that eventually drain into the Cuddy to where it hits Gun Lake- this constitutes what is know as the drainage district which is for taxable special assessment district. The way this is set up right now, is why the share of who is paying for it is limited to just those houses along the channel that contribute directly into the drain.

**Dan Fredricks** also answered a question regarding the possible need to move or replace a gas line of Consumer's Energy. D. Fredrick commented that precautionary measures will be taken, but replacement of the line will not be needed.

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**Watershed Overview**

- **Area: 4,047 Acres (6.3 sq. miles)**
- **98.5% in Allegan County**
- **Length: 3.2 Miles**

**Preliminary Project Cost Estimate**

**Island Drive Channel**

- Additional Dredging Cost \$80,000
- Mobilization/Dredge Disposal Contribution \$70,000
- Engineering, Survey, Testing and Inspection Contribution- \$12,000
- MDEQ Permitting - \$3,000
- **Contingency - \$10,000**

**\*Preliminary Estimate of Project Cost ~ \$175k**

Note – Does not include Legal, Administrative, Permitting, Mitigation, Remediation or Financing Costs)

## reliminary Apportionment

### **Cuddy Intercounty Drain**

- \*Preliminary Estimate of Project Cost: \$1.1M - \$1.3M
- Approximately 160 parcels (~70 along Drain) within Barry County
- Apportionment Percentages: TBD by Intercounty Drainage Bd. (D. Fredricks commented, "Pretty much what's done in Allegan County is being paid by Allegan County.")

### **Island Drive Channel**

- \*Preliminary Estimate of Project cost: \$175k - \$200k
- Yankee Springs Special Assessment District. Established by Petition
- 18 Individual Parcels and "Boardwalk at Gun Lake" Condos border Island Dr. Channel  
(\*Note – Does not include Legal, Administrative, Permitting, Mitigation, Remediation or Financing Costs)

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**Bill Baughman, Patterson Rd.**, mentioned ½ to Barry County and ½ to Allegan County is ½ to Yankee Springs Township and ½ to Wayland Township. Fredricks commented that the counties can be assessed at large as well as, on top of this.

**Russ Yarger, Barry County Drain Commissioner** commented regarding the sedimentation basin maintenance, Allegan County will pay half and Barry County pays half – because they want it clean.

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**Project Schedule** was noted as well in the Powerpoint presentation by D. Fredricks.

**Sept. 2015:** Submit MDEQ General Permit

**Sept./October 2015:** Finalize Bid Documents

**Nov. 2015:** Construction Bidding

**Nov./Dec./Jan./Feb. (2015/16):** Project Financing

### **Jan. 2016 – August 26, 2016: Contract 1 – Construction**

1. **Patterson Rd. Culvert-** April 2016 – May 5/20/16
2. **Open Channel Excavation-** Jan. 2016-July (7/29/16)

### **Contract 2- Construction**

1. **Disposal Area/Prep. Work** (July – August 2016)
2. **Channel Dredging** (Sept./Oct. (10/21/16)

(Outstanding item: DEQ permit needed for some work in Allegan County. Hope to have done by early Oct. per D. Fredricks.)

**Kebbie Brush, YS Resident**, inquired about Patterson Rd., being shut down. It was noted the road will be shut down 1 to 2 weeks before Memorial Day.

**Deb Masselink** – commented that her understanding is the detour will be on paved roads – taking people from Patterson up to 6<sup>th</sup> Street. Residents will need to know where First Street is.

**Roger Rottschafer, YS Trustee** – mentioned that it was commented that the remaining amount on dredging (200 ft. down) would be “on Barry County”– (this didn’t mean it would be paid by the county and just the county - it was clarified that Barry County’s responsibility is to apportion to residents, townships, and county-at-large).

**Joanne Sigley** – regarding the people on Cuddy Drain that go out to Gun Lake. J. Sigley asked what their **apportionment** would be.

**In response, D. Fredricks showed the following figures on Powerpoint:**

**Barry County - \$707,920.40**

**Allegan County - \$478,319.60**

Barry County (60%) Allegan County –(40%)

**Ballpark figures were asked for by the audience:**

**Island channel is \$80,000 dredging** – just they (Island Drive residents) are responsible.

**.5k to 10k assessment per channel resident -over a number of years- was given for a ballpark figure.**

**Mike Sigley, YS Resident** commented on a schedule concern - asking how firm the schedule was. D. Fredricks commented that the schedule will be firm.

**M. Sigley** asked, “The volume won’t make a difference on the diversion (of water)?” – D. Fredricks said it wouldn’t make a difference unless a heavy rain occurs, but if so, it wouldn’t permanently affect it.

**Ken Thompson, YS Resident** - inquired if there was any way to amp up the project to avoid summer traffic. D. Fredricks commented that repaving has to be done – so it is a function of asphalt plants opening up- so they are looking at April / May. The firm date of May 20<sup>th</sup> is to avoid Memorial Day Weekend and after.

**Russ Yarger** – mentioned road load limits may play into it too.

**An unidentified resident** asked about the actual procedure to be used for the diversion. D. Fredricks explained the process which will go around the work area and back in on the side. Fredricks explained the sheeting to be used and mentioned that the design makes the construction easier.

**Kebbie Brush** - inquired as to how they are determining who pays? Household, lot, property frontage on channel?

**Russ Yarger**, Drain Commissioner commented that assessment would probably be by foot of frontage.

**Pat Gillespy, Valley Drive** – commented on it being said that there are 70 people on Cuddy Drain. “Who are the other people?” asked P. Gillespy. Fredricks commented that those people would be those living north toward McDonalds – and the development with the large pond area that drains into the channel. Regarding benefit factor, there’s would be reduced, so these people would have a reduced assessment rate. Gillespy also mentioned the diversion – between properties – pipe and sediment shooting out into the channel. D. Fredrick commented that they have to check on jurisdiction on this. The Drain Commissioner needs to take care of these –subdivisions- as well per R. Yarger. It was noted that he hasn’t been lost of.

**Tim Gehrke, Park Dr.** – asked if a determination of how long the assessment would be was made (yet). Russ Yarger commented 10 to 15 years – the decision will be made by Drain Commissioner.

**Tim Gehrke** – also asked if grants have been looked at on this project. Since the DEQ has designated the Cuddy Drain a special situation, D. Fredricks responded any grants will have to address “E. Coli”- and the biggest thing (to work with this type of grant) is to be able to work with the landowners around the drain and maybe implement site specific best management practices such as creating a small wetland process to filter water before it discharges. These grants would involve more in terms of water quality vs. hard navigable hannel dredging. So basically a “no” answer to this type of grant availability.

**An unidentified resident** would ask that the township take a hard, long “think” about prorating closer to the road costs more than out by the lake. “It’s the Cuddy Drain in its entirety.” He didn’t feel it was fair. “We’re going to clean the whole thing up; let’s pay the same.”

**Mark Englerth-** commented on asking the audience how they felt it should be apportioned (at the end of public comment time).

**B. Baughman** – asked “Why is your design so much different than the petition? D. Fredricks reviewed what is designed. 1985 design also was reviewed by D. Fredricks

**Dave Niver, Park Dr.,** – regarding the Boardwalk where docks run out 10 feet or so, Niver asked how will the docks be affected? D. Fredricks commented that basically from the dock structure, they will taper down (dredging). Boathouses will have to be cleaned out by owners, before dredging, pushing sediment toward the center.

**Brandon Love** - doesn’t have a seawall and asked if he would lose his yard. D. Fredricks commented that the seawall structural integrity or banks will not be jeopardized.

**Ken Thompson, Valley Drive** – inquired as to what if a seawall does go out. “That will go to homeowners insurance? Everyone won’t have to pay for that?” asked Thompson. Gross negligence by contractor would be paid by contractor. D. Fredricks commented having



substantial documentation and inventory and photos of everything out there. There will also be video documentation before anything even starts.

**Pat Gillespy** - How do we get ready for it as property owners? We need to work together to share information, schedules for boats and docks to be out. D. Fredricks commented that once a contractor is on board then "we" (engineering firm) can share that information - P. Gillespy commented on hanging messages for communication on door knobs, etc. It was noted that one or two people can't do it alone. Block captains were mentioned. D. Fredricks mentioned most likely needing a meeting -or more- next year.

**David Driesma** -inquired as to when will it be finalized, when will the final number be known for the residents, and when will we know how it will be assessed to the residents. D. Fredricks commented the Final cost will be known when the bids come in later this Fall. A Day of Review will be held and notification will be made, at that point of time the total project cost will be made public. Everybody's individual assessment will be made public as well. Everyone will have their chance to go into the Drain Office and state your view. Everyone will have a chance to make their case as to why they might not agree with your assessment. If somehow thru that process, it doesn't work out to everyone's agreement, there is an option of filing in court.

**An unidentified resident** commented that before Christmas, everyone should know the cost. D. Fredricks agreed with this comment. D. Fredricks commented that the only thing that could possibly derail this before the spring or fall would be a delay with court.

**Bill Baughman**- commented on making the bottom wider when dredging by changing the slope of the design.

Further discussion took place on digging deeper, but costing more, or being more shallow, and less expensive. D. Fredricks commented that already the plan is going a foot deeper than what was done in 1985. D. Fredricks commented extensively on the dredging plans.

M. Englerth initiated further discussion on assessment for costs to the residents as to whether it should be done by parcel, frontage or half lot and half by frontage. It was mentioned that closer to the drain could be a factor in assessment as well.

M. Englerth thanked Deb Masselink for all of her hard work. It was noted that Deb Masselink's blog would be a good reference, as Deb has been very active working with the Cuddy Drain: [www.friendsofthecuddydrain.wordpress.com](http://www.friendsofthecuddydrain.wordpress.com)

**ADJOURNMENT:** The meeting was brought to a close by Supervisor, Mark Englerth at 8:35 p.m.

Respectfully submitted:

Deb Mousseau  
Recording Secretary  
9.15.15

Approved by: \_\_\_\_\_  
Janice C. Lippert, Township Clerk

Date: October 8, 2015

**ADJOURNMENT**

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