City Council Chambers located at: City Hall – 410 Ludington Street – Room C101 – Escanaba MI 49829
The Council has adopted a policy to use a Consent Agenda, when appropriate. All items with an asterisk (*) are considered routine by the City Council and will be enacted by one motion. There will be no separate discussion of these items unless a Council Member or citizen so requests, in which event, the item will be removed from the General Order of Business and considered in its normal sequence on the Agenda.

Regular Meeting
Thursday, January 19, 2017, at 7:00 p.m.

CALL TO ORDER
ROLL CALL
INVOCATION/PLEDGE OF ALLEGIANCE - Pastor Erik Heskin of Bethany Lutheran Church
APPROVAL/CORRECTION(S) TO MINUTES - Regular Meeting – January 5, 2017
APPROVAL/ADJUSTMENTS TO THE AGENDA
CONFLICT OF INTEREST DECLARATION(S)
BRIEF PUBLIC COMMENT(S)
PUBLIC HEARING(S)

Explanation: Each year, Council holds public hearings to facilitate input from citizens for the upcoming FY2017/18 fiscal year budget. This is the first of five (5) scheduled public hearings.

NEW BUSINESS

1. Approval – Marina Basin Weed Treatment and MDEQ Permits – Marina.
Explanation: Administration is seeking Council approval of a multi-year professional services weed treatment contract with PLM Lake & Land Management Corporation of Milford, Michigan, for the following years in the following amounts: 1) FY2017/18 Not To Exceed $13,750; 2) FY2018/19 Not To Exceed $14,162; 3) FY2019/20 Not to Exceed $14,587; 4) FY2020/21 Not to Exceed $15,024 and FY2021/2022 Not to Exceed $15,475. Under the terms and conditions of the contract PLM will continue to oversee, treat and eradicate weeds in the marina basin. Additionally, Administration is seeking Council approval to submit permit applications to the State of Michigan for the required MDEQ Spring 2017 permit and the Fall 2017 MDEQ plant survey.

Explanation: In accordance with the terms and conditions of the Central Dispatch Agreement between the City of Escanaba and the Delta County Central Dispatch Authority, Delta County reimburses the City of Escanaba for all expenses charged to manage and oversee the program by making fixed monthly payments. At the end of each fiscal year, the City defers excess funds to the next fiscal year. As of June 30, 2016, the City deferred $74 more than should have been deferred so the City Administration is seeking Council approval of a resolution for a deficit elimination resolution as required by the Michigan Department of Treasury.

3. Approval – Patrol Car Purchase – Department of Public Safety.
Explanation: Administration is seeking Council approval to purchase a 2017 Ford Sedan Police Interceptor from Riverside Ford of Escanaba, MI at a cost of $25,309. Additionally, Administration is seeking Council approval to purchase additional equipment that is needed to localize the patrol car in the amount of $2,409. The purchase of this vehicle is included in the current fiscal year budget.
4. Approval – Professional Services Contract – Phase 1 - Water/Wastewater Department.
   Explanation: Administration is seeking Council approval to retain the professional services of C2ae Architecture and Engineering of Escanaba, MI in the amount of $23,500. Under the terms and conditions of the contract, C2ae will assist in identifying procedures and/or improvements that will be needed to reduce Disinfection Byproducts (DBP) in the water system. Additionally, C2ae will provide assistance in evaluating and recommending improvements that will be required by the State as a result of the recently completed MDEQ Sanitary Survey.

5. Approval – Professional Services Contract – Phase 2 - Water/Wastewater Department.
   Explanation: Administration is seeking Council approval to retain the professional services of C2ae Architecture and Engineering of Escanaba, MI in the amount of $79,300. Under the terms and conditions of the contract, C2ae will provide professional services for the development and implementation of an Asset Management Plan for the Escanaba Water System, revise the Capital Improvement Plan, update the Escanaba Water/Wastewater General Plan and Water Model, and update and upload data into the City GIS system.

6. Approval – Capacity Purchase – Electric Department.
   Explanation: Administration is seeking Council approval to purchase capacity from NextEra Energy Power Marketing, LLC of Juno Beach, FL for the period of June 2019 through May 2024 at a price not to exceed $3.85/kW-mo. Capacity is the maximum electric output an electricity generator can produce under specific conditions. This capacity will be used to meet our MISO capacity requirements. On January 11, 2017, the Electrical Advisory Committee met and recommended Council approval.

Respectfully Submitted

James V. O'Toole
City Manager
OFFICIAL PROCEEDINGS
CITY COUNCIL
CITY OF ESCANABA, MICHIGAN
Regular Council Meeting
Thursday, January 5, 2017

The meeting was called to order by the Honorable Mayor Marc D. Tall at 7:00 p.m. in the Council Chambers of City Hall located at 410 Ludington Street.

Present: Mayor Marc D. Tall, Council Members, Patricia A. Barbier, Ralph B. Blasier, Ronald J. Beauchamp, and Michael R. Sattem.

Absent: None

Also Present: City Manager James V. O'Toole, City Department Heads, media, and members of the public.

Pastor Patrick Bradway of the New Life Assembly of God Church, gave the invocation and led Council in the Pledge of Allegiance.

Sattem moved, Beauchamp seconded, CARRIED UNANIMOUSLY, to approve Special Meeting minutes from December 13, 2016, and Regular Meeting minutes from December 15, 2016, as submitted.

ADJUSTMENTS TO THE AGENDA

Blasier moved, Beauchamp seconded, CARRIED UNANIMOUSLY, to approve the agenda as amended.

CONFLICT OF INTEREST DECLARATION – None

BRIEF PUBLIC COMMENT – None

UNFINISHED BUSINESS – None

PUBLIC HEARINGS – None

NEW BUSINESS

Approval – Scheduling of Public Hearings - 2017/18 Fiscal Year Budget
Preparation – Citizen Participation.

Each year, the City Council holds public hearings to facilitate input from citizens for the upcoming fiscal year budget. Administration sought Council approval to schedule the first of three (3) public hearings for January 19, 2017. Additionally, Administration sought City Council approval to schedule additional public hearings for February 16, 2017, and March 16, 2017.
City Council Minutes
January 5, 2017 – cont.


**Update – City Manager Position Posting.**

City Manager O'Toole updated the City Council on the position posting for the upcoming City Manager opening. The following was discussed:

- 28 resumes were received as of this date, with the scheduled filing deadline of January 6, 2017;
- With Manager O'Toole delaying his departure to July 2017, suggested extending the deadline to February 3, 2017;
- Many salary range questions have been asked. It was suggested to put in a salary range or ask each applicant to state their salary expectations;
- Council was asked to consider a sub-committee of two Council Members, Manager O'Toole, and City Attorney, to help narrow down the applicants;
- Council Members were advised Council, per the Open Meetings Act, could only discuss applications in open session, unless the applicant requested confidentiality. Applications marked confidential could be discussed in Closed Session.

After discussion, the following motions were made:

Blasier moved, Baribeau seconded, to extend the City Manager application deadline to February 3, 2017.

Upon a call of the roll, the vote was as follows:

Ayes: Blasier, Baribeau, Tall
Nays: Beauchamp, Sattem

The following other items were discussed:

- A letter could be sent to all the current applicants explaining the rational for the application extension, as well as, asking each applicant if they desired their application to remain confidential, and also if they wished further supplement information to be included with their resume;
- Discussed a salary range, and to allow it to be open for discussion during the interview;
- After each Council Member reviewed the applicants resumes with the score sheet, each applicant would be rated prior to any discussion at a Council meeting. It was the consensus that most applicants, by the time any Council discussion occurs, would weed themselves out.
City Council Minutes
January 5, 2017 – cont.

After further discussion, Beauchamp moved, Sattem seconded, CARRIED UNANIMOUSLY, to send out a letter advising applicants of the February 3, 2017 application extension, and ask if they wish their resume to be held confidential.

After discussion, Blasier moved, Beauchamp seconded, to duplicate the City Manager position advertising with the new application deadline, with the exception of Green Bay News Paper.

Upon a call of the roll, the vote was as follows:

Ayes: Blasier, Beauchamp, Baribeau, Sattem, Tall
Nays: None

MOTION CARRIED.

APPOINTMENT(S) TO CITY BOARDS, COMMISSIONS, AND COMMITTEES – None

BOARD, COMMISSION, AND COMMITTEE REPORTS

Council Members reviewed City Board and Commission meetings each attended since the last City Council Meeting.

GENERAL PUBLIC COMMENT – None

ANNOUNCEMENTS

• January 24, 2017, a special Council Meeting was scheduled, on Council and Departmental Budget priorities.

Hearing no further public comment, the Council adjourned at 7:40 p.m.

Respectfully submitted

Robert S. Richards, CMC
City Clerk

Approved: __________________________

Marc D. Tall, Mayor
MEMORANDUM

TO: James V. O'Toole, City Manager

FROM: Larry Gravatt, Escanaba Harbor Master

SUBJECT: Marina Weed Management, Treatment and Eradication Project

Administration is seeking Council approval of a multi-year professional services contract with PLM Lake & Land Management Corporation of Milford, Michigan, for the following years in the following amounts: 1) FY2017/18 Not To Exceed $13,750; 2) FY2018/19 Not To Exceed $14,162; 3) FY2019/20 Not to Exceed $14,587; 4) FY2020/21 Not to Exceed $15,024 and FY21/22 Not to Exceed $15,475 for continued oversight, treatment and eradication of weeds in the marina basin. Additionally, Administration is seeking Council approval to submit permit applications and pay associated fees to the State of Michigan for the required MDEQ Spring 2017 permit and the Fall 2017 MDEQ plant survey.

In 2014, the City Council approved a five (5) year contract with PLM with the condition the contract and performance be reviewed after three (3) years. In reviewing the data and end results of PLM's performance, as the Harbor Master I am more than satisfied with the results obtained through PLM's weed management program over the last three (3) years. Therefore, I am recommending we enter into a multi-year arrangement with PLM so that we can fix our "not to exceed" prices for budgetary purposes for this ongoing maintenance issue. In the attached background information you will note that PLM has performed their service well under the budgeted amount for each of the last three (3) years.
PLM Lake and Land Management
Sales by Customer Detail
January through December 2016

<table>
<thead>
<tr>
<th>Date</th>
<th>Num</th>
<th>Memo</th>
<th>Qty</th>
<th>Sales Price</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>02/11/2016</td>
<td>14344</td>
<td>Reimbursement for 2016 Permit Application Fee</td>
<td>1</td>
<td>800.00</td>
<td>800.00</td>
</tr>
<tr>
<td>06/14/2016</td>
<td>16802</td>
<td>CLP Treatment of Lake Using Aquathol K</td>
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<td>226.00</td>
<td>1,130.00</td>
</tr>
<tr>
<td>06/14/2016</td>
<td>16802</td>
<td>EWM Treatment of Lake Using Renovate OTF at 160lb...</td>
<td>0.12</td>
<td>617.33</td>
<td>74.08</td>
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<td>06/14/2016</td>
<td>16802</td>
<td>Weed Treatment of Lake Using Diquat</td>
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<td>206.00</td>
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<td>06/14/2016</td>
<td>16802</td>
<td>Weed Treatment of Lake using Diquat for Natives</td>
<td>8.75</td>
<td>257.00</td>
<td>2,248.75</td>
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<tr>
<td>06/14/2016</td>
<td>16802</td>
<td>Fuel Surcharge</td>
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<td>3,967.83</td>
<td>59.52</td>
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<tr>
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<td>1,505.16</td>
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<td>576.00</td>
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<td>Weed Treatment of Lake using Diquat for Natives</td>
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<td>2,248.75</td>
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<td>08/25/2016</td>
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Total Escanaba, City of

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TOTAL

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<th>Qty</th>
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<th>Amount</th>
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<td>Date</td>
<td>Num</td>
<td>Memo</td>
</tr>
<tr>
<td>------------</td>
<td>-----</td>
<td>---------------------------------------------------</td>
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<tr>
<td>06/25/2015</td>
<td>146448</td>
<td>Weed Treatment of Lake Using Aquathol K</td>
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<tr>
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<td>EWM Treatment of Lake Using Renovate OTF at 240lb...</td>
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<td>06/25/2015</td>
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<td>Weed Treatment of Lake using Diquat max</td>
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<td>Fuel Surcharge</td>
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<tr>
<td>07/21/2015</td>
<td>147365</td>
<td>Weed Treatment of Lake using Diquat max rate</td>
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<td>Fuel Surcharge</td>
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<td>08/18/2015</td>
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<td>AVAS Survey of Lake</td>
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<td>Fuel Surcharge</td>
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<tr>
<td>Total Escanaba, City of Escanaba, City of</td>
<td>24.535</td>
<td>7,207.19</td>
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<td>TOTAL</td>
<td>24.535</td>
<td>7,207.19</td>
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## PLM Lake and Land Management
### Sales by Customer Detail
#### January through December 2014

<table>
<thead>
<tr>
<th>Date</th>
<th>Num</th>
<th>Memo</th>
<th>Qty</th>
<th>Sales Price</th>
<th>Amount</th>
</tr>
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<tbody>
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<td>06/23/2014</td>
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<td>450.00</td>
<td>900.00</td>
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<tr>
<td>06/23/2014</td>
<td>142397</td>
<td>Weed Treatment of Lake using Diquat max rate</td>
<td>9.4</td>
<td>250.00</td>
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<td>06/23/2014</td>
<td>142397</td>
<td>Fuel Surcharge</td>
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<td>5,450.00</td>
<td>109.00</td>
</tr>
<tr>
<td>07/15/2014</td>
<td>142797</td>
<td>Fuel Surcharge/NPDES Compliance</td>
<td>-1</td>
<td>54.50</td>
<td>-54.50</td>
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<td>08/05/2014</td>
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<td>Weed Treatment of Lake using Diquat max rate</td>
<td>11.25</td>
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<td>AVAS Survey of Lake</td>
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<tr>
<td>12/16/2014</td>
<td>144818</td>
<td>Permit Fee for 2015 Season Please make payment pay...</td>
<td>1</td>
<td>0.00</td>
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</tr>
</tbody>
</table>

Total Escanaba, City of  

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>33.69</td>
<td></td>
<td></td>
<td>9,102.63</td>
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</table>

|              |       |                                                                       |     |             |            |
| TOTAL        | 33.69 |                                                                        |     | 9,102.63    |            |
# Standard Aquatic Vegetation Summary Sheet

<table>
<thead>
<tr>
<th>Code</th>
<th>Plant Name</th>
<th>Total number of AVAS's for each Density Category</th>
<th>Calculations</th>
<th>Sum of Columns 5-8</th>
<th>Total No. of AVAS</th>
<th>Col 9 divided by Col 10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>A x 1</td>
</tr>
<tr>
<td>1</td>
<td>Eurasian watermilfoil</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>Curly leaf pondweed</td>
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</tr>
<tr>
<td>3</td>
<td>Chara</td>
<td>6</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>4</td>
<td>Thinleaf pondweed</td>
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<tr>
<td>5</td>
<td>Flatstem pondweed</td>
<td>4</td>
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<td>0</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>Robbins pondweed</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<td>7</td>
<td>Variable pondweed</td>
<td>0</td>
<td>0</td>
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<td>0</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>White stem pondweed</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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</tr>
<tr>
<td>9</td>
<td>Richardson's pondweed</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>Illinois pondweed</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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</tr>
<tr>
<td>11</td>
<td>Large leaf pondweed</td>
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<td>12</td>
<td>American pondweed</td>
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<td>13</td>
<td>Floating leaf pondweed</td>
<td>0</td>
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<tr>
<td>14</td>
<td>Water stargrass</td>
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<td>15</td>
<td>Wild celery</td>
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<td>4</td>
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</tr>
<tr>
<td>16</td>
<td>Sagittaria (submersed)</td>
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<td>0</td>
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<tr>
<td>18</td>
<td>Green watermilfoil</td>
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<td>19</td>
<td>Variable leaf watermilfoil</td>
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<tr>
<td>20</td>
<td>Coontail</td>
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<tr>
<td>21</td>
<td>Elodea</td>
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<td>Bladderwort</td>
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<tr>
<td>23</td>
<td>Mini Bladderwort</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>24</td>
<td>Buttercup</td>
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<td>0</td>
</tr>
<tr>
<td>25</td>
<td>Najad</td>
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<td>0</td>
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<td>Brittle naiad</td>
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<td>0</td>
<td>0</td>
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</tr>
<tr>
<td>27</td>
<td>Sago Pondweed</td>
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<td>0</td>
<td>0</td>
<td>0</td>
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<td>Cabomba</td>
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<td>Starry stonewort</td>
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<tr>
<td>30</td>
<td>Water Lily</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>31</td>
<td>Spatterdock</td>
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<td>0</td>
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</tr>
<tr>
<td>32</td>
<td>Water shield</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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</tr>
<tr>
<td>33</td>
<td>Lemma minor</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>34</td>
<td>Greater duckweed</td>
<td>0</td>
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<td>0</td>
<td>0</td>
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<tr>
<td>35</td>
<td>Watermeal</td>
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<td>0</td>
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</tr>
<tr>
<td>36</td>
<td>Arrowhead</td>
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<td>0</td>
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</tr>
<tr>
<td>37</td>
<td>Pickerelweed</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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</tr>
<tr>
<td>38</td>
<td>Arrow arum</td>
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<td>0</td>
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<td>0</td>
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</tr>
<tr>
<td>39</td>
<td>Cattail</td>
<td>0</td>
<td>5</td>
<td>2</td>
<td>6</td>
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</tr>
<tr>
<td>40</td>
<td>Bulrush</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>41</td>
<td>Iris</td>
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<td>0</td>
<td>0</td>
<td>0</td>
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</tr>
<tr>
<td>42</td>
<td>Swamp loosestrife</td>
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<td>0</td>
<td>0</td>
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</tr>
<tr>
<td>43</td>
<td>Purple loosestrife</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>44</td>
<td>Phragmites</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>45</td>
<td>Slender spikerush</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>46</td>
<td>Smartweed</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>47</td>
<td>Water marigold</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>48</td>
<td>American lotus</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>50</td>
<td>Total cumulative cover</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Total cumulative cover: 39.45
Explanation of DEQ-Format Lake Vegetation Maps and Summary Sheets

The maps are in a standard format as required by the Michigan Department of Environment Quality (DEQ). The maps divide the parts of the lake capable of growing aquatic plants into subareas and record the cover of each aquatic plant species found in each area. Vegetation summary sheets summarize the information from the maps in a form that the DEQ uses to make decisions about permits.

Notations on the map are interpreted as follows:

Number (= plant species) Letter (=approximate cover of this plant)

For Example:

“1b” indicates plant species #1 at a density of b

Species are usually numbered according to a standardized numbering system (at right). We often reproduce the species number key and species name abbreviations on the map itself. The cover codes a, b, c and d are used to describe the approximate coverage of each plant within the map area, as described in the following table.

<table>
<thead>
<tr>
<th>Cover Code</th>
<th>Approximate Cover Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>1-2%</td>
</tr>
<tr>
<td>b</td>
<td>3-20%</td>
</tr>
<tr>
<td>c</td>
<td>21-60%</td>
</tr>
<tr>
<td>d</td>
<td>61-100%</td>
</tr>
</tbody>
</table>

Thus the example “1b” refers to Eurasian watermilfoil covering between 3 and 20 percent of the area of the lake in which this code appears.

Shading on the map is used to identify areas of overall plant coverage, locations of problem exotic species or areas requiring management. A key on the map should indicate exactly what is indicated by shading.
October 5, 2016

City of Escanaba - Harbor Master
Mr. Larry Gravett
PO Box 948
Escanaba, MI 49829

Thank you allowing me to submit a proposal to continued our services with you. The following proposal has been prepared similar to previous contacts and please feel free to contact me if modifications are required.

PLM Lake & Land Management Corp. will provide lake management services for the Escanaba Harbor. The following proposal is for your review for the Escanaba Harbor for the 2017 season with a variety of services available. To highlight a few of the advantages to working with PLM: All billings are post service/treatment with itemized billing details. Reports and follow up information is readily available following service. In addition to any scheduled service, PLM is always available via phone call for treatment/lake evaluation if something changes unexpectedly. Please review the following proposal and if any changes, additions, or modifications are required to suite your specific program needs, please contact me without hesitation.

Management program for 2017: The main focus of aquatic plant management should be in controlling exotic and/or invasive plants. In 2017, PLM will promote a healthy balance of native plants yet limiting their nuisance level while keeping exotic species throughout the harbor under control. Management may also include performing surveys (AVAS Surveys when required), pre/post treatment surveys, water quality analysis (optional), and algae treatments if required/requested.

Products to be applied: Restrictive products such as Diquat, Renovate OTF, Aquathol K, Clipper and nonrestrictive products if requested; such as copper sulfate, chelated copper products, ScClear, Cygnets Plus shade and any new products approved for use through the MDEQ. Note: Diquat and Clipper products do not have potable water restrictions/setbacks.

**Proposed Timeline 2017**
December 2016: Apply for MDEQ Permit
Spring 2017: Treatment Notices distributed, scheduling of season
May/June: Potential initial herbicide application (time varies depending treatment protocol)
June/July: Optional-Potential herbicide/algaeicide application. Pre/post survey, WQ testing optional
August/September: Optional-Potential herbicide application. Fall AVAS survey, Water Quality optional

<table>
<thead>
<tr>
<th>Unit Costs/Acre</th>
<th>Cost:</th>
<th>Application Rate:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Systemic Herbicides:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Renovate OTF:</td>
<td>$470.00</td>
<td>@120lbs/acre</td>
</tr>
<tr>
<td>Contact Herbicides:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clipper:</td>
<td>$630.00</td>
<td>@200ppb/acre</td>
</tr>
<tr>
<td>Diquat:</td>
<td>$200.00</td>
<td>@1gal/acre</td>
</tr>
<tr>
<td>Diquat:</td>
<td>$250.00</td>
<td>@2gals/acre</td>
</tr>
<tr>
<td>Aquathol K:</td>
<td>$220.00</td>
<td>@1.5gal/acre</td>
</tr>
</tbody>
</table>

**Estimated Budget for 2017:** All budgets are comprised using the unit costs per acre listed above and estimated acres based on past surveys. It is extremely difficult to predict how many acres will require service. All treatments will be done within your available budgets and as authorized. Initial spring treatment will address EWM, Curlyleaf (CLP) and native if reaching nuisance levels. A mid summer treatment will once again address EWM and CLP if present and nuisance native plants in dock and mooring areas pending approval of Harbor Master and DEQ. Additional late season treatments may be required pending weather condition, re-growth of exotic or other nuisance native plants. Treatment is optional per Harbor Master request/approval.
<table>
<thead>
<tr>
<th>Service</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permit DEQ</td>
<td>$800.00</td>
<td>$800.00</td>
</tr>
<tr>
<td>Annual AVAS Survey</td>
<td>$750.00</td>
<td>$750.00</td>
</tr>
<tr>
<td>Exotic Plant Control</td>
<td>$2,200.00</td>
<td>$5,000.00</td>
</tr>
<tr>
<td>Native Plant Control</td>
<td>$5,000.00</td>
<td>$7,200.00</td>
</tr>
<tr>
<td>Total Estimated budget</td>
<td>$8,750.00</td>
<td>$13,750.00</td>
</tr>
</tbody>
</table>

This budget utilizes the control of EWM using Renovate OTF (granular systemic herbicide) and contact herbicides for the control of CLP, EWM, Elodea and Coontail. Multiple treatment options are available and can be adjusted into the budget if required.

**Optional Lake Management Services:**

**Water Quality Program:** The water quality program consists of two samplings, occurring in the spring and late summer each season. Parameters such as secchi disc, pH, D.O., conductivity, alkalinity and nutrient sampling of total nitrogen and total phosphorus give us the ability to monitor lake trends more efficiently. This information will enable us to include the trophic status of your lake. Reports are issued annually in the fall. E. Coli testing will be done during the summer months, consisting of three samples for an overall lake average. A total of three sites will be sampled for E. Coli and results will be included in the annual report if levels are not out of normal range. If results are elevated, immediate contact will be made and actions can be taken at that time. Cost of WQ Program: $900.00

**Surveys:** Performing surveys is a vital part of any lake management program. PLM surveys a lake in the spring and fall as well as surveying for pre/post treatments. Lake representatives are welcome to arrange joining PLM for a survey. Depending on the type of survey performed, a cost may apply. An AVAS Survey is a more specific survey performed for specific reasons. Performing Spring and fall AVAS surveys of the lake will allow for all vegetation within the lake, native and exotic, to be recorded along with density. This data is important in determining management plans and treatment areas. A full understanding of the vegetation growing within the lake can indicate problems within an aquatic environment. AVAS surveys are also a requirement from the MDEQ prior to a Sonar treatment. Surveys will be supplied to the lake board upon completion with a break down of what the survey indicates. Cost per AVAS Survey: $750.00

**Contract Period:**

**Multiple Year Treatment Program:** As an incentive to establish a multiple year agreement we will treat your lake or pond at the same price structure as 2017 for 2018! The remaining three years (2019, 2020, 2021) will have cost increases of (3%) three percent per year or less. If total chemical cost increases 10% from the previous year a new agreement will have to be mutually acceptable. If during the life of the contract the MDEQ or other regulatory agencies significantly change the approved treatment procedures, either party may terminate this agreement upon giving ninety (90) days advance written notice thereof.

**One Year Treatment Program:** Pricing is based on the type and the amount of vegetation or algae present at the time of treatment, as well as, the products applied. Unlike the multiple year program, an agreeable price structure is not contracted into a one-year program. Therefore, an increase in the cost of products, labor, or changes made by the MDEQ or other regulatory agencies may have a drastic effect on the pricing for following years.

**Permit Fee:** PLM Lake & Land Management Corp. is responsible for completing and submitting aquatic nuisance permit applications. PLM Lake & Land Management Corp. will send an invoice or statement for the yearly MDEQ permit application fee. It is your responsibility to send a check made out to the “State of Michigan” to our office. We must include this check with the MDEQ permit application.

**Posting of Treatment Areas:** Posting of shoreline treatment areas is the responsibility of PLM Lake & Land Management Corp. and will be conducted according to MDEQ regulations. Due to MDEQ guideline changes and specific residential concerns, posting fees may apply. Signs will be attached to thick barked trees, posts or other suitable fixtures already on site. If homeowners wish to have signs posted in designated areas or on specific fixtures they must notify PLM Lake & Land Management Corp., providing lake address, location of property, and where the signs are to be posted. Pictures are the most
informative way to relay this information. Notification of alternate posting must be made at least 14 days prior to treatment and additional fees may apply. The removal of posting signs after the restrictions have expired is the responsibility of the homeowner.

Notification of Treatments: PLM will notify each resident within 100 feet of the treatment area at least seven days in advance, but no more than forty-five days prior to the first treatment date, that products will be applied to the lake (with a provided list of addresses from the lake board). This notification requirement must be administered to each and every property owner within 100 feet of any treatment area. PLM Lake & Land Management Corp. will provide a tentative treatment schedule and the Notice of proposed products to be used during the spring of each year. We will also notify resident within 100 feet of the treatment areas on the day of treatment.

Non-Target Species: Please be aware that we only control weeds and algae present at time of treatment. Emergent vegetation (cattails, bulrush, purple loosestrife), lily pads, eel grass and sago pondweed require separate programs for control and are not addressed unless specifically mentioned in the management program. We have no control over future weed or algae growth based on the current chemicals registered for aquatic use in Michigan.

Invoicing and Payments: PLM Lake & Land Management Corp. will submit an invoice following treatment that will include the following information; lake and/or pond(s) treated, date of treatment and type of treatment or acres treated. Monies will be due net thirty (30) days after each treatment. The invoice may be subject to a fuel surcharge of up to 1.5% of the total treatment cost. Interest of 1.25% will be added to your bill for each additional sixty (60) days that payment is not received.

Liability Issues:
We are responsible for workman's compensation and liability insurance for the duration of the contracted period.

PLM Lake & Land Management Corp. is not responsible for fish loss due to low oxygen levels caused during warm water conditions.

Please sign, check optional multiple year program, or one-year program, if you would like to participate and note if you want to participate in the PLM Survey Program.

Return one copy of this proposal by November 15, 2016.

For further clarification or modifications please contact.

BreAnne Grabill, Environmental Scientist
Northern Lake Manager
PLM Lake & Land Management Corp.
breg@plmcorp.net

City of Escanaba “Escanaba Harbor”

Signature

Print Name Date

One Year Program
Multi-Year Program
Optional Services:
Annual AVAS Survey
<table>
<thead>
<tr>
<th>Description of Request</th>
<th>Actual 2013-14</th>
<th>Actual 2014-15</th>
<th>Estimate 2015-16</th>
<th>Budget 2016-17</th>
<th>Request 2016-17</th>
<th>Recommended 2016-17</th>
<th>Final 2016-17</th>
<th>$ Change Col. 7-Col.4</th>
<th>% Change Col. 7-Col.4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Printing and Publishing</td>
<td>134</td>
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<td>0</td>
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<td>100</td>
<td>100</td>
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<tr>
<td>Insurance &amp; Bonds</td>
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<td>4,750</td>
<td>5,500</td>
<td>5,000</td>
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<td>5,000</td>
<td>(500)</td>
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<tr>
<td>Public Utilities</td>
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<td>10,000</td>
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<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Repairs to Structures</td>
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<td>3,331</td>
<td>6,000</td>
<td>6,000</td>
<td>6,000</td>
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</tr>
<tr>
<td>Weed Management</td>
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<td>11,000</td>
<td>15,000</td>
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<td>11,000</td>
<td>11,000</td>
<td>(4,000)</td>
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<td>Repair to Equipment</td>
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<td>3,691</td>
<td>2,500</td>
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<td>2,000</td>
<td>500</td>
<td>33.33%</td>
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<tr>
<td>Crane Rental</td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Porta-Potty</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>City Equipment-Misc.</td>
<td></td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Rental of Equipment</td>
<td>4,618</td>
<td>4,959</td>
<td>3,000</td>
<td>2,450</td>
<td>3,000</td>
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<td>Memberships &amp; Dues</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>Education &amp; Training</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.00%</td>
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<tr>
<td>Depreciation Expense</td>
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<td>58,880</td>
<td>57,000</td>
<td>57,000</td>
<td>56,000</td>
<td>56,000</td>
<td>56,000</td>
<td>(1,000)</td>
<td>-1.75%</td>
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<tr>
<td>Cap Outlay-Building Improve</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.00%</td>
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<tr>
<td>Commercial Grade Mower</td>
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<td>0</td>
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<td>0</td>
<td>0</td>
<td>0.00%</td>
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<tr>
<td>Capital Outlay-Equipment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Books, Magazines &amp; Periodicals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL ACTIVITY REQUEST</td>
<td>236,534</td>
<td>235,617</td>
<td>237,700</td>
<td>243,466</td>
<td>239,998</td>
<td>239,998</td>
<td>239,998</td>
<td>(3,468)</td>
<td>-1.42%</td>
</tr>
</tbody>
</table>
City of Escanaba
P.O. Box 948
Escanaba, MI 49829

January 12, 2017

Michigan Department of Treasury
Local Government Financial Services Division
P.O. Box 30728
Lansing, MI 48909

To Whom It May Concern:

This letter is in response to Treasury’s request for a deficit elimination plan for the Delta County Central Dispatch Fund’s deficit balance of $74.00 as listed in our fiscal year ended 6/30/2016 audit report.

The Delta County Central Dispatch Fund is for the operations for the police, fire and ambulance dispatch services for Delta County which is housed at the Escanaba Public Safety Department. The Delta County Central Dispatch Authority reimburses the City of Escanaba for all expenses charged to this fund via fixed monthly payments. At the end of each fiscal year, the City defers any excess money in the fund to the next year and we adjust the monthly payment amount if necessary.

At 6/30/2016, we simply deferred $74 more than we should have. In future years, we will make sure this fund does not have a deficit balance by deferring the correct amount.

Please let me know if any additional information is needed.

Sincerely,

Melissa Becotte

Melissa Becotte, City Controller
906-789-7300
mbecotte@escanaba.org

Mission Statement:
Enhancing the enjoyment and livability of our community by providing quality municipal services to our citizens. 
The City of Escanaba is an equal opportunity employer and provider.
P.A. 621 of 1978, as amended, provides that a local unit shall not incur expenditures in excess of the amount budgeted. The approved budgets of the City were adopted on the activity level basis for all governmental funds, which is the legal level of control. During the year ended June 30, 2015 the City had expenditures in excess of the amounts budgeted as follows:

<table>
<thead>
<tr>
<th></th>
<th>Appropriations</th>
<th>Expenditures</th>
<th>Budget Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>General fund</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General government:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elections</td>
<td>$ 19,815</td>
<td>$ 20,596</td>
<td>$ 781</td>
</tr>
<tr>
<td>Contingent fund</td>
<td>$</td>
<td>$ 116,654</td>
<td>$ 116,654</td>
</tr>
<tr>
<td>Recreation and culture:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Civic center</td>
<td>$ 58,424</td>
<td>$ 58,900</td>
<td>$ 476</td>
</tr>
<tr>
<td>Parks</td>
<td>$ 221,975</td>
<td>$ 239,074</td>
<td>$ 17,099</td>
</tr>
</tbody>
</table>

The above budgeted amounts are presented at the activity level, which is the required minimum level of control per the Michigan Uniform Budget Manual.

Deficit Fund Balance / Net Position

The City is reporting a deficit unrestricted net position of $118,749 and $671,896 in the Marina enterprise fund and the Escanaba Building Authority internal service fund, respectively. The Delta County Central Dispatch Authority also reports an unassigned deficit of $74. In addition, the City is reporting a deficit of $10,891,287 within the governmental activities of the government-wide financial statements; however, total net position is not in a deficit.
TO:Jim O’Toole, Escanaba City Manager

FROM:Director Robert LaMarche

DATE:January 17, 2017

SUBJECT:Patrol car purchase

After receiving the lowest patrol car bid from Gorno Ford in Woodhaven, Mi for $25,409, Lt Zawacki approached our local Riverside Ford dealer to see if they could match or beat the original bid from Gorno Ford. I am pleased to say we negotiated a lower price of $25,309 with our local dealership. I am recommending we purchase our new patrol car from Riverside Ford which allows us to have the vehicle serviced locally and save money in the process.

Thank you
<table>
<thead>
<tr>
<th>Item</th>
<th>16/17 Request</th>
<th>16/17 Recommended</th>
<th>16/17 Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>Police Patrol Car</td>
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Memo

To: Jim O'Toole, City Manager
From: Jeff Lampi, W & WWTP Supt.
Date: 1/9/17
Re: Engineering Services for the Water Department

Jim,

As we have discussed several times in the last few months the Water Department has been tasked with many different mandates from the State of Michigan's DEQ office. Several of these mandates I can stand behind, as it will make Escanaba's Water Department a much better System in the future. So, it's very hard to make a strong rebuttal on items that should or need to be completed.

The largest and most important of these issues requirements are addressing the Disinfection By Products (DBP's) created in the treated water due to the required use of Chlorine in the water to make it potable. We are tasked with making water free of microbes which will harm-sicken or kill humans in the short term, but also not allow DBP's from forming that may create a health risk after long term exposure.

C2AE has presented a proposal (Phase 1) to help us plan for reducing the DBP's at not only the Water Plant, but also in the Distribution System. Work under this proposal will be conducted on a time and material basis, and will also allow their firm to be available for consultation and planning on other issues currently being addressed by the Water Department. A short list of these items include; DBP control, chlorination improvements within the plant, clear well Improvements, different types of coagulation use and storage, recommending which mixer to install in the towers, and other small items than may come up. Please be advised that the work done as per this proposal known as "Phase 1" will only include planning, and more engineering support will be needed to implement mitigation of some of these problems.

The second proposal (Phase 2) presented will aid the water department in tying up a lot loose ends which have developed over the years, as well as becoming State compliant with the rules and regulations concerning a public water supply. The highlights of (Phase 2) will provide deliverables of a newly completed Asset Management Plan (AMP), which is due in January of 2018. Completing the Reliability Study, which has been avoided for many years with a waiver written by myself as a means of appeasing the State. Conduct work to revise the Capital Improvement Plan (CIP) which will allow it to mesh fluently with the efforts put forth in the AMP. Other work will include updating and adding information to the General Plan and Water Model, such as age and material of mains, and inserting actual flow testing into the water model to create a working model. (Some of these efforts may include internal labor from both the water and engineering departments.) Most of this data will be inserted in to the GIS program, which is currently being constructed as part of the SAW grant. This information will help enable to City make better use of funds by planning and tracking maintenance thought out the water System.
To sum up the second proposal (phase 2):

Creation and completion of the Asset Management Plan (AMP)
Creation and completion of the Reliability Study
Revising the Capital Improvement Plan (CIP)
Updating the General Plan, “age and material of mains”
Updating the Water Model, “flow testing”

As you know we have utilized several sources of engineering services in the past with great success. Regrettably, I’ve always told the engineering firm conducting this type of work for us; “that we only want to be “State Complaint”, and no more than that.” This frugal concept has served us well and saved some money in the past, but has left us with marginal results. These past results are now being questioned as not being “complete” today. Therefore, I feel we need to be more comprehensive in our work, without being inefficient by doing too much extra the State is not requiring.

Unfortunately we live in a very different era now. I feel a great need to be proactive and create a firm foothold for the City, in order to address our issues in the coming years. The “Post Flint” DEQ is not what it was a few years ago, and I can feel the rules and regulations tighten in around us. The use of professional services like these will be an ever present part of this industry, as a means to avoid future legal complications.

As required in the City’s Purchasing Policy; 1.4 CODE OF CONDUCT:

As per the policy; I’m here by disclosing a possible “conflict of interest” in retaining the services of C2AE. A City employee’s wife works for; and has to my knowledge become a shareholder of this company. I myself have no conflict, but feel compelled to provide notification of such. I will also state that C2AE is our engineering firm of choice due their level of professionalism and expertise in our water treatment process, not because of any personal relationships.

As required in the City’s Purchasing Policy; 3.6 SOLE BRAND / SOLE SOURCE:

I would like to briefly address the Policy of Sole Sourcing and that of the requirement of Competitive Bidding. Due to the extensive work the staff at C2AE has performed within the Water Plant over the years, they have become very aware of our needs and conditions. I will admit there are other engineering firms that may be able to perform this work, but I don’t feel any have the same expertise and background that several key members have within the C2AE office here in Escanaba. It is likely that we would need to obtain the services of a “Down State” engineering firm to match the wealth of experience C2AE has the ability to provide right here on the “Main Street” of Escanaba. Combining all of this work into one firm will make the entire process flow much better as every separate process within the Water Department; is much like the spokes of a wheel, or cogs on a gear. Much of this work being conducted is also closely related to the activity in the SAW Grant in other City Departments.

Therefore please consider the following two Proposals:

Phase 1:

Please consider this as a request for approval to retain the services of C2AE of Escanaba, to complete the work outlined in the Phase 1 proposal for their services of Disinfection By Products (DBP’s) evaluation and other work during the 2017 calendar year. Their services will be billed as time and material for compensation of completed work, as outlined in the “Phase 1” proposal at a cost not exceed $23,500.00.

Phase 2:

Please consider this a request for approval to retain the services of C2AE of Escanaba Ml, to complete all of the work outlined in the Phase 2 proposal at a cost not to exceed $79,300.00. A reduction of $11,000.00 may be realized if the Engineering Department has the ability to provide the bulk of the labor while aging the water mains throughout the system.

Currently money is not budgeted for these services at this time. However if approved, my upcoming budget request for the upcoming 16-17 fiscal year will include this engineering work.

p.c. Melissa Becotte, City Controller
Bill Farrell, City Engineer
December 29, 2016

Mr. Jeff Lampi  
City of Escanaba  
PO Box 948  
Escanaba, MI 49829

Re: Agreement for General Engineering Services

Dear Jeff,

We are pleased to submit for consideration this agreement to provide general engineering and architecture services to the City of Escanaba. We propose to provide general engineering and architecture services in accordance with the following parameters:

- General engineering and architecture services may include, but not be limited to, preliminary feasibility studies, preparation of design, cost estimates, construction related field services, preparation of bid documents, inspection, site plan/plat reviews and topographic surveys.

- Engineering and architecture services will be provided only as authorized by the City of Escanaba. When specifically requested by the City, a fixed not-to-exceed budget will be provided for any particular project or request. Reimbursement for engineering and architecture services will be made in accordance with the attached rate schedule.

- We will not charge for requests which can be handled by a quick check of our files or references. However, when the time required to provide the requested input involves more lengthy research, we will charge the time to the general services account.

- Billings will be made on a monthly basis and are due upon receipt.

- This agreement shall be in effect beginning January 1, 2017 and remain in place until terminated by the City of Escanaba upon written notice delivered to our office.

We appreciate the opportunity to submit this agreement, along with our standard contract provisions for your consideration. If this agreement is acceptable, please sign and return one copy to our office. Thank you.

Sincerely,

C2AE

ACCEPTED:
CITY OF ESCANABA, MICHIGAN

Charles J. Lawson PE  
Project Manager | Construction Coordinator

BY: __________________________

DATE: _________________________
## Professional Rate

<table>
<thead>
<tr>
<th>Classification</th>
<th>Description</th>
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1. The foregoing rates include employee fringe benefits, computer time, overhead, other indirect costs and profit. Legal proceedings, including but not limited to case preparation, depositions, interrogatories, court appearances, will be billed at the above hourly rates plus ten (10) percent.
2. Rates are effective through December 31, 2017.
3. Expenses will be invoiced at cost plus ten (10) percent administrative fee.
4. All invoices are due upon receipt.
5. This information is confidential and is not to be duplicated, used or disclosed in whole or in part, for any purpose other than for which it has been submitted without written authorization by one of the firm's principals.

CONFIDENTIAL
The parties to this agreement, Capital Consultants, Inc., a Michigan Corporation doing business as C2AE in the State of Michigan, hereinafter called the A|E CONSULTANT and the City of Escanaba, Michigan, hereinafter called the OWNER, hereby agree to the following conditions:

A. **Limit of Scope:** The services provided by the A|E CONSULTANT may include, but not be limited to, the preparation of reports, studies, preliminary designs and opinions of probable construction costs, site plan and utility reviews, attendance at administrative and public meetings and other general services requested by the OWNER.

Separate agreements will be entered into for design and construction services and for information technology services on a project-specific basis.

B. **Standard of Care:** In providing services under this Agreement, the A|E CONSULTANT will endeavor to perform in a manner consistent with that degree of care and skill ordinarily exercised by members of the same profession currently practicing under similar circumstances. Upon notice to the A|E CONSULTANT and by mutual agreement between the parties, the A|E CONSULTANT will without additional compensation, correct those services not meeting such a standard.

C. **Opinions of Probable Construction Cost:** In providing opinions of probable construction cost, the OWNER understands that the A|E CONSULTANT has no control over the cost or availability of labor, equipment or materials, or over market conditions or the Contractor’s method of pricing, and that the A|E CONSULTANT’s opinions of probable construction costs are made on the basis of the A|E CONSULTANT’s professional judgment and experience. The A|E CONSULTANT makes no warranty, express or implied, that the bids or the negotiated cost of the work will not vary from the A|E CONSULTANT’s opinion of probable construction cost.

D. **Schedule for Rendering Services:** The A|E CONSULTANT shall prepare and submit for OWNER approval a schedule for the performance of the A|E CONSULTANT’s services. This schedule shall include reasonable allowances for review and approval times required by the OWNER, performance of services by the OWNER’s consultants, and review and approval times required by public authorities having jurisdiction over the project. This schedule shall be equitably adjusted as the project progresses, allowing for changes in scope, character or size of the project requested by the OWNER, or for delays or other causes beyond the A|E CONSULTANT’s reasonable control.

E. **Ownership of Reports, Drawings and Other Materials:** The OWNER agrees that all reports, drawings, letters, work sheets, plans, preliminary material tables, supportive data, documents and other materials produced by the A|E CONSULTANT in the course of and for the purpose of meeting this contract are the property of the A|E CONSULTANT, and shall remain in the possession of the A|E CONSULTANT. The OWNER shall have access to the above named material during normal business hours of the A|E CONSULTANT during and after completion of this contract. The OWNER may obtain copies of any of the above named material. Copies of electronic media may be obtained by the OWNER via execution of this Agreement. (See Alteration and Reuse of CAD Information provision of this Agreement.)

F. **Alteration and Reuse of CAD Information:** Because computer aided design/drafting (CAD) information stored in electronic form can be modified by other parties, intentionally or otherwise, without notice or indication of said modifications, the A|E CONSULTANT reserves the right to remove all indications of its ownership and/or involvement in the material from each electronic medium not held in its possession. The OWNER may retain copies of the work performed by the A|E CONSULTANT in CAD form. Copies shall be for information and used by the OWNER for the specific purpose for which the A|E CONSULTANT was engaged. Said material shall not be used by the OWNER, or transferred to any other party, for use in other projects, additions to the current project, or any other purpose for which the material was not strictly intended without the A|E CONSULTANT’s express written permission. Any unauthorized modification or reuse of the materials shall be at the OWNER’s sole risk, and the OWNER agrees to defend, indemnify, and hold the A|E CONSULTANT harmless, from all claims, injuries, damages, losses, expenses, and attorneys fees arising out of the unauthorized modification of these materials.

G. **Payment Terms:** Invoices will be submitted by the A|E CONSULTANT monthly, are due upon presentation and shall be considered past due if not paid within thirty (30) calendar days of the due date.

H. **Disputed Invoices:** If the OWNER objects to any portion of an invoice, the OWNER shall so notify the A|E CONSULTANT in writing within ten (10) calendar days of receipt of the invoice. The OWNER shall identify in writing the specific cause of the
disagreement and the amount in dispute and shall pay that portion of the invoice not in dispute in accordance with other payment terms of this Agreement. Any dispute over invoiced amounts due which cannot be resolved within ten (10) calendar days after presentation of invoice by direct negotiation between the parties shall be resolved within thirty (30) calendar days in accordance with the Dispute Resolution provision of this Agreement. Interest as stated above shall be paid by the OWNER on all disputed invoice amounts that are subsequently resolved in the A|E CONSULTANT’s favor and shall be calculated on the unpaid balance from the due date of the invoice.

I. **Abandonment of Work:** If any work is abandoned or suspended, the A|E CONSULTANT shall be paid for services performed prior to receipt of written notice from the OWNER of abandonment or suspension.

J. **Errors and Omissions Insurance:** The A|E CONSULTANT maintains an errors and omissions insurance policy as part of normal business practice. The OWNER agrees to limit the A|E CONSULTANT’s liability to the OWNER and to all Construction Contractors and Subcontractors on the project due to the A|E CONSULTANT’s negligent acts, errors, or omissions, such that the total aggregate liability of the A|E CONSULTANT to all those named shall not exceed $25,000.

K. **Indemnification:** The A|E CONSULTANT agrees, to the fullest extent permitted by law, to indemnify and hold harmless the OWNER against damages, liabilities and costs arising from the negligent acts of the A|E CONSULTANT in the performance of professional services under this Agreement, to the extent that the A|E CONSULTANT is responsible for such damages, liabilities and costs on a comparative basis of fault and responsibility between the A|E CONSULTANT and the OWNER. The A|E CONSULTANT shall not be obligated to indemnify the OWNER for the OWNER’s own negligence.

L. **Dispute Resolution:** The OWNER agrees that all claims, disputes, and other matters in question between the parties arising out of or relating to this Agreement or breach thereof first shall be submitted for nonbinding mediation to any one of the following, as agreed to by the parties: American Arbitration Association, American Intermediation Service, Americord, Dispute Resolution, Inc., Endispute, or Jidicature. Any party hereto may initiate mediation within the time allowed for filing per State law and the parties hereto agree to fully cooperate and participate in good faith to resolve the dispute(s). The cost of mediation shall be shared equally by the parties hereto.

If mediation fails to resolve the claim or dispute, the matter shall be submitted to a court of competent jurisdiction.
December 29, 2016

Mr. Jeff Lamp, Water Superintendent
City of Escanaba
410 Ludington Street
Escanaba, MI 49837

Re: City of Escanaba, Michigan
Proposal for Professional Services, DBP/Sanitary Survey Improvements
Phase 1 under the Escanaba/C2AE 2017 Annual Agreement

Dear Jeff,

Thank you for contacting C2AE to assist the City with the Disinfection Byproduct and other water Sanitary Survey issues. Your time spent updating us was beneficial. Our proposal for water system engineering services is contained herein.

PROJECT UNDERSTANDING

We understand that Escanaba has received correspondence from MDEQ requiring the City to complete an Operational Evaluation Report (OER) to identify procedures or improvement to reduce Disinfection Byproducts (DBP) in the system. The OER will be completed by the City, but C2AE assistance is needed through the final recommendation and implementation stage. Assistance from C2AE is needed on the following improvements identified by MDEQ in the Sanitary Survey and November 22, 2016 letter:

- Disinfection byproduct control
- Chlorination
- Clearwell improvements
- Fluoride feed control
- Coagulation use and storage volumes

It is understood that the following Sanitary Survey points will be addressed by the City with only minor input from C2AE:

- Cross connection program issues
- Verification/certification of chemicals
- Monitoring of residual chlorine levels at the effluent end of the clearwell
- Unaccounted for water issues
- Intake crib inspection
Well abandonment

Distribution records

SCOPE

Our proposed scope of services is summarized below and is targeted at addressing MDEQ concerns in the 2016 Sanitary Survey. We have proposed certain MDEQ tasks that C2AE will lead. Others are assumed to be handled by the City staff alone.

Following is our proposed scope of services:

1. **Kickoff Meeting:** C2AE will host a kickoff meeting at our office to discuss the final scope proposed for C2AE and the City. We will also collect other needed operating data at that time.

2. **Disinfection Byproducts:** C2AE will work with WTP staff to prepare a plan to address Disinfection Byproducts (DBP) in the collection system. It is assumed that City action will be taken in early winter to temporarily reduce DBP levels. The DBP mitigation plan will prioritize improvements to encourage implementation of actions in order of benefits gained and based on results accomplished by earlier improvements. The proposed steps in developing the DBP plan are described below:
   a. Data will be evaluated to confirm the profile of DBP through the WTP and Distribution System. We especially plan to look at DBPs formed within the WTP process vs those formed in the distribution system. Data exists, but more may be needed. It recommended that plant tap DBP sampling be completed with normal quarterly sampling. Additional TOC sampling may be recommended.
   b. Three years of monthly operating reports will be summarized for use in the evaluations.
   c. We will assist with review of the Calgon Carbon proposal for interim GAC filter cap treatment, and will provide recommendations to assist.
   d. Evaluate proposals from Solar Bee and Utility Service for mixers in the elevated tanks and WTP clearwell. Proposal may be for the purchase and install only, or may be for fully warranted design and DBP removal. These have previously been obtained by the City.
   e. Recommend the most cost effective approach to use for mixing of the reservoir and elevated tanks as means of DBP control. It is noted that the final prioritization with other potential upgrades will be made when those evaluations are complete. Initially, it is assumed that mixers will be installed without fully warranted DBP removal.

3. **Chlorination Improvements:** The MDEQ Sanitary Survey and the Escanaba Capital Improvement Plan by C2AE have noted potential reduction in DBP levels by shifting chlorination feeds, points downstream at the WTP to maximize precursor removal prior to introduction of disinfectants. This has significant potential benefit but will also require upfront study, pilot work, physical improvements, and operational changes. Our proposed scope to assist with this task are:
a. Confirm CT computations in the CIP with MDEQ. Verify the mixing ratio (T_{10}/T) assumed for the clearwell. Establish the extent to which Sedimentation Tankage is needed to provide CT. It is assumed that the tracer study will not be needed to reach an agreement as to the CT available in the clearwell.

b. Recommend clearwell physical improvements to enhance maintenance and maximize CT. Options may include dividing walls, mixing, and standard operating procedures.

c. Recommend chlorination equipment improvements needed to address MDEQ concerns, improve reliability, and facilitate post chlorination. This will be based on the assumption that the existing chlorine schematic and Superchlor chorination equipment is satisfactory as a starting point.

d. C2AE will contribute engineering guidance to the City’s work to develop a standard operating procedure for the reservoir.

4. **Fluoride Feed Safety:** We will make recommendations for improvements to meet MDEQ fluoride feed reliability criteria.

5. **Coagulant Storage Capacity:** We will assist the City with making recommendations to comply with coagulant storage capacity.
   
   a. We will review the 2002 Basis of Design to understand the thinking at that time.
   
   b. Assist the City as they consider the potential use of polyaluminum chloride (PACL) as a primary coagulant.
   
   c. Help determine relative feed rates if PACL is selected as a primary coagulant.
   
   d. Make recommendations for long term bulk storage of Alum or PACL.

6. **Letter Report:** General procedures and recommendations will be summarized in a letter report. The primary focus will be:
   
   a. Calgon proposal review and recommendations regarding interim GAC filter caps.
   
   b. Prioritization of the improvements to control DBPs.
   
   c. Recommendations regarding clearwell mixing for vitalization of DBPS.
   
   d. Recommendations for chlorination improvements.

Final design and bidding of improvements or recommendations is not included under the scope of this proposal.
ASSUMPTIONS

The following has been assumed in developing this proposal:

1. The scope of this proposal is primarily evaluation and recommendations. Design or bidding efforts will be separate.

2. The City is moving to complete the OER report to MDEQ and to obtain preliminary proposals from Calgon Carbon, Solar Bee, and Utility Services.

3. The City will obtain necessary minimum data to confirm TOC trends and DBP formation percentages in the clearwell.

4. A separate proposal will be generated to address asset management requirements, and the general plan water map and valve locations.

DELIVERABLES

Our deliverables will be in the form of email communication for individual recommendations and a draft and final summary letter report. If necessary, drawing figures will be provided with recommendations.

SCHEDULE

Our proposed schedule is as outlined below:

Review Calgon Proposal for Interim GAC Mitigation
Kickoff Meeting
Summarize MORs and other Data
Mixing Recommendations
Chlorination Improvements
Summary Report

1 Week after Receipt
2 Weeks after Authorization
4 Weeks after Receipt of Data
6 Weeks after Project Authorization
8 Weeks after Project Authorization
10 Weeks after Project Authorization

A breakdown of individual scope items on a percent basis is: Kickoff 3%, DBP Recommendations 27%, Chlorination Improvements 30%, Fluoride Recommendations 3%, Coagulation 10%, and the Summary report 27%.

FEE

Work under this proposal can only moderately be defined and the probability of scope changes is larger than normal. For these reasons we request compensation on a T&M basis. Compensation for our services shall be on T&M basis not to exceed $23,500 without prior written authorization from the City. Reimbursable expenses will be invoiced for payment at a 1.0 multiplier.
We propose to include the work of this proposal as Phase 1 of a new 2017 annual agreement with the City of Escanaba. We will forward our draft annual agreement with our Standard Contract Provisions for draft review in the very near future. If the terms and conditions as stated are acceptable, please countersign and return one (1) copy to our office. Please do not hesitate to contact us should you have any questions or concerns, or if you need additional information.

Sincerely,
C2AE

[Signature]
Charles J. Lawson, P.E.
Project Manager

[Signature]
David R. Holmgren, P.E.
Project Engineer

cc: C2AE File

[Signature]
Accepted by:

[Signature]
Client

Date
January 10, 2017

Mr. Jeff Lampi, Water Superintendent  
City of Escanaba  
410 Ludington Street  
Escanaba, MI 49837

Re:   City of Escanaba, Michigan  
Proposal for Professional Services  
Water Asset Management Plan  
Phase 2 under the Escanaba/C2AE 2017 Annual Agreement

Dear Jeff,

Thank you for the opportunity to provide this engineering services proposal to provide an asset management plan for the Escanaba water system. Our proposal for asset management and miscellaneous MDEQ required water system engineering is described and itemized herein.

PROJECT UNDERSTANDING

Michigan law requires owners of Type 1 public water supplies such as Escanaba, to implement a water asset management plan (Water AMP) by January 1, 2018. This will ultimately aid in establishing an expected level of service to customers, identifying the most cost effect means of long term system upkeep, and guiding financial decisions going forward. A nucleus of the needed Water AMP was begun under the 2015 Capital Improvement Plan by C2AE. The new Water AMP will need to be based on improved water system information and will expand on the 2015 CIP to effectively guide water treatment and distribution system planning into the future.

MDEQ conducted a compliance survey (termed Sanitary Survey) of the WTP and water system in 2016 to document the strengths and weaknesses of the water system. Their summary letter of November 22, 2016, describes actions needed by the City to comply with State drinking water standards and laws. MDEQ identified issues directly related to water treatment quality which are proposed for study by C2AE in the Phase 1 Engineering Services Proposal is separate from this document.

The November 2016 MDEQ Sanitary Survey transmittal letter identified certain specific additional administrative or distribution concerns to be completed by the City. Some of this shopping list will be handled directly by the City and is not addressed in this proposal. The items listed below will be included in the scope of the Water AMP under this proposal.

- General Plan Map update to include age, material, and condition of watermains in the City.
- Calibration of the hydraulic water model as completed in 2013 by Traverse Engineering.
- Water reliability or ability of the system to meet projected 5 and 20 year capacity needs. This was waived by MDEQ at the time of the initial General Plan, Water Model, and Capital Improvement Plan. A minimalistic demonstration of reliability is desired as part of the Water AMP.
Use, maintenance, or abandonment of supply wells.

The total number of assets to be documented in the Water AMP has not been established. The existing Capital Improvement Plan will serve as a starting point with 25 WTP assets and 10 distribution system assets. Additional distribution system assets will be added, but the City believes that water mains can be grouped to reduce the number of assets.

Watermain age is an important consideration for a Water AMP. The effort to research and assign buried pipe ages can be undertaken by the City or by C2AE with help from the City. City photographic records and construction drawings can be valuable resources. It may be effective to generalize age to fulfill MDEQ requirements now, and refine this information over time.

SCOPE

Our proposed scope of services is summarized below and is targeted at addressing MDEQ concerns in the 2016 Sanitary Survey. We have proposed a scope of work largely completed by C2AE to reduce demands on City labor time. In some cases we have proposed alternated scopes as potential cost savings.

Following is our proposed scope of services:

1. **Kickoff Meeting:** C2AE will host a kickoff meeting at our office to discuss the final scope proposed for C2AE and the City. We will also collect other needed operating data at that time.

2. **Water Asset Management Plan:** C2AE will organize available and acquired information into an asset management structure using the same format as the ongoing wastewater SAW program and the existing 2015 Capital Improvement Plan. At this time the number of assets to document or track will be kept low. This can be expanded by the City over time. For scoping purposes we are proposing 30 WTP assets and 30 Distribution System assets. The following will be included in the scope of the AMP effort:
   a. Level of Service: We will work with the City to define a level of service (LOS) to focus expectations for performance of the system. C2AE will provide guidance as to potential parameters or criteria to include in the definition. We do not recommend that a LOS committee be established for this AMP. We have assumed that the City will confirm the final level of service.
   b. Identification of Assets: We will recommend a draft list of AMP assets for confirmation by the City. Watermain asset breakdowns may need to be confirmed based on information collected in subsequent steps, especially pipe ages.
   c. Field Inventory: Each asset will be inventoried in the field or on the desktop as it is practical to collect information necessary to assign remaining useful life, probability of failure, criticality, and replacement cost. The format of the existing CIP will also be used for the water asset management program. This format is assumed to support the MDEQ need for descriptions of asset inventory processes and asset likelihood/consequences of failure.
   d. Capital Improvement Plan: The 2015 CIP will be confirmed and updated based on the AMP workbook parameters, existing City needs, and MDEQ concerns of the November 2016 Sanitary Survey letter. The CIP will look at 5 year and 20 year system needs.
e. The financial analysis in the 2015 CIP will be revisited and revised to confirm user rate structure requirements for the period 2018 to 2023.

f. Field inventory support data, AMP worksheets, a capital improvement plan, supplementary reports, supporting documentation, and electronic copies of major system documents (i.e. construction drawings) will be delivered on a digital hard drive for City use.

3. Water GIS and General Plan Map: The existing AutoCAD water utility atlas is a good depiction of the water system but lacks the capability of linking important data and is not able to recall requested data by means of queries. For the future, the water General Plan Map is recommended to be a GIS based product compatible with the information system used by Escanaba for managing other utilities (i.e. Wastewater SAW). The City has previously acquired location coordinates on water system valves/curb stops and has nearly completed delineating watermain and valves within the City GIS system. Data related to water components has not been entered and is not available for presentation through the GIS system. We propose to complete the development of the GIS based water General Plan Map to meet MDEQ requirements. To meet MDEQ requirements the General Plan Map must include age, material, and condition of water mains. Age of buried pipes will be used as the primary criteria on which to base asset management parameters of condition, probability of failure or likelihood of failure. The discussion below is intended to clarify our proposed scope:

a. We propose to complete the task of assigning pipe ages to each watermain segment or group of segments in the system. This information will later be used to develop material and internal roughness information. We will conduct investigation into City construction documents, field books, and photograph records to assign watermain ages as follows:

i. For pipe installed after 1970 assign a specific age in years as is possible. If not practical, assign into a 5 year age interval.

ii. For pipe installed prior to 1970 strive to assign each segment into an age category of approximately 10 years or one decade.

iii. For the very oldest water mains the age categories may be greater than 10 years.

The cost of this step is included in the base proposal.

b. As a cost saving alternate to the scope of this proposal, the City can furnish ages for all buried watermain based on available historic aerial photographs and other file records. Areas of the City can be correlated roughly with the photos to establish the time period of development for vicinities within the City limits. Each watermain or watermain group will be assigned to one of approximately 5 to 10 age categories. It will be possible for the City to expand the number of watermain segments in the future as time allows more in-depth research on age and material. Pipe material will be assumed as cast iron or ductile iron based on assigned age. Where other watermain materials are known to exist they will be so designated on the General Plan.

4. Hydraulic Model: The current water distribution hydraulic model was updated by Traverse Engineering in 2013. This modeling effort did not include distribution/transmission recommendations and MDEQ has stated that calibration of the model is needed. We propose to use Traverse Engineering as a sub consultant to complete the following steps:
a. Revise hydraulic model inputs to vary roughness coefficients based on age as furnished by the City or C2AE.

b. Incorporate model extensions or size adjustments as furnished by the City.

c. Provide an acceptable calibration process based on hydrant flow testing and revised pipe roughness coefficients. It is proposed to have Traverse Engineering do the hydrant flow testing. It could be negotiated for the City to complete flow testing at some savings if desired.

d. Provide recommendations for high priority capital improvements for the 5 and 20 year outlooks. Five and 20 year projected system flows will be provided by C2AE from the Reliability component of the Water AMP.

e. Provide model outputs including tabulation and pressure/available flow contour mapping to C2AE and the City. Provide five copies of a revised model report.

5. **Reliability Study:** A reliability evaluation and recommendations will be provided.

   a. 2015 and 2016 MOR records will be summarized with 2014 records from the C2AE CIP to define current demands and demand trends.

   b. Projections of future capacity needs from the 2015 CIP will be summarized.

   c. A short two to three page reliability summary will be provided as an appendix to the Water AMP and will include the MOR summary.

6. **Unaccounted Water:** Unaccounted water is important to Water Reliability/Asset Management and MDEQ has recommended certain minimum levels of documentation in the November 2016 letter. This can be a contributing factor in financial assessment, rate revenue needs, and the priority of watermain replacement.

   a. Billed water usage as furnished by City Hall from 2015 and 2016 will be compared to 2014 to assess the trend in lost water. This will serve as important background data to monitor progress as meter replacement moves forward over the next several years.

   b. Effort to further quantify flushing water, firefighting water, and pipe failure water should be continued by the City.

7. **Miscellaneous:**

   a. The Water AMP and CIP will address inspections of the intakes.

   b. The Water AMP and CIP will address the groundwater supply wells.

8. **Letter Report:** A brief letter report will be provided as a transmittal tool and will generally explain the intent of the information delivered.

Final design and bidding of improvements or recommendations is not included under the scope of this proposal.
ASSUMPTIONS
The following has been assumed in developing this proposal:

1. The scope of this proposal is primarily evaluation and recommendations. Design or bidding efforts will be separate if necessary.

2. The City staff will provide input to assist with system asset classifications.

3. The 2015 CIP will be used as a format for AMP development, financial analysis and rate structure recommendations. Final capital improvements will be adjusted based on AMP efforts and MDEQ recommendations of the sanitary survey.

4. A separate proposal (Phase 1) has been generated to address water treatment and water quality concerns. The items of the November 22, 2015 MDEQ letter which are included in the Phase 1 proposal:
   a. DBP treatment and reduction (Item 3).
   b. Fluoride pump redundant cutout (MDEQ Item 6).
   c. Clearwell Operation and Clearwell CT (MDEQ Item 7 and 11).
   d. Chlorination Improvements (MDEQ Item 8).
   e. Bulk Storage of Treatment Chemicals (MDEQ Items 9).

5. Issues in the November 22, 2015 MDEQ letter which are assumed to the responsibility of the City alone include:
   a. Cross connection issues (MDEQ Item 1 and 4).
   b. Chemical NSF Certification (MDEQ Item 5).
   c. Valve records (MDEQ Item 15).
      i. This could be incorporated into the asset management plan.

DELIVERABLES
Our deliverables for the Water AMP will be in the form of a digital storage device with a brief transmittal letter report. For the General Plan, the deliverable will be a revised water map included on the AMP digital storage device. An electronic version of a Water AMP summary report will be included on the AMP digital storage device.

SCHEDULE
Our proposed schedule is as outlined below:

   Kickoff                                             January 31, 2017
   Watermain Age Assignment (By City)                 April 28, 2017
Complete Water AMP Field Inventory Phase  
Complete Capital Improvement Recommendations and Financial Analysis  
Final Project Deliverables  

June 29, 2017  
August 31, 2017  
November 10, 2017

FEE

Compensation for our base services shall be on a lump sum basis including reimbursable expenses. The Lump Sum Cost shall be $79,300 the fee may need to be modified if efforts assigned to the City are completed by the Engineer.

We propose the following additional costs or cost reductions if authorized by the City:

1. If the City is able to complete the scope of the watermain aging outlined for the base proposal the base amount can be reduced by $11,000.

We propose to include the work of this proposal as Phase 2 of a new 2017 Annual Agreement with the City of Escanaba for various engineering service authorizations. The annual agreement with our Standard Contract Provisions is being considered separately. If the scope of this Phase 2 project proposal is acceptable, please countersign and return one (1) copy to our office. Please do not hesitate to contact us should you have any questions or concerns, or if you need additional information.

Sincerely,

C2AE

Accepted by:

Charles J. Lawson, P.E.
Project Manager

David R. Holmgren, P.E.
Project Engineer

cc: C2AE File

Client

Date
MEMORANDUM

To: Jim O'Toole

From: Mike Furmanski

Date: 12JAN17

Re: Capacity Purchase

At the October 26, 2016 joint meeting of the Electric Advisory Committee and City Council, various potential futures were presented based on energy and capacity purchase options available at that time. At that meeting, Council approved extending our energy contract out to May 31, 2024. Council also approved the purchase of up to 3 years of capacity at a not-to-exceed price of $3.85/kW-mo. Through talking with various parties who have capacity available, I was offered up to 5 years of capacity at a not-to-exceed price of $3.85/kW-mo. At the January 11th EAC meeting, the committee passed a recommendation to extend the capacity approval to 5 years at a not-to-exceed price of $3.85/kW-mo. I would like to seek Council approval of 5 years of capacity at a not-to-exceed price of $3.85/kW-mo at the January 19th meeting.

At the October 26, 2016 meeting, it was estimated that 1.9% annual revenue increases would be needed to break even through 2024. With the updated capacity prices, the estimated annual increases have been reduced to 1.75%.
Frequently Asked Questions

What is the difference between electricity generation capacity and electricity generation?

**Capacity** is the maximum electric output an electricity generator can produce under specific conditions. Nameplate capacity is determined by the generator’s manufacturer and indicates the maximum output of electricity a generator can produce without exceeding design thermal limits.

Net summer capacity and net winter capacity are typically determined by a performance test and indicate the maximum electricity load a generator can support at the point of interconnection with the electricity transmission and distribution system during the respective season. There are two primary factors that affect or determine the difference in capacity between summer and winter months:

- The temperature of cooling water for thermal power plants or the temperature of the ambient air for combustion turbines
- The water flow and reservoir storage characteristics for hydropower plants

**Generation** is the amount of electricity a generator produces over a specific period of time. For example, a generator with 1 megawatt (MW) capacity that operates at that capacity consistently for one hour will produce 1 megawatthour (MWh) of electricity. If the generator operates at only half that capacity for one hour, it will produce 0.5 MWh of electricity. Many generators do not operate at their full capacity all the time. A generator’s output may vary according to conditions at the power plant, fuel costs, and/or as instructed by the electric power grid operator.

Net generation is the amount of gross electricity generation a generator produces minus the electricity used to operate the power plant. These electricity uses include fuel handling equipment, water pumps, combustion and cooling air fans, pollution control equipment, and other electricity needs.