

Auburn City Council Meeting, February 8, 2024

**Auburn City Council
Regular Meeting
Thursday, February 8, 2024 5:00 P.M.
City Council Chambers
Memorial City Hall
24 South St.
Auburn, NY 13021**

Minutes

The meeting of the Auburn City Council was called to order at 5:00 p.m. from the City Council Chambers, 24 South St. Auburn, NY by Mayor James N. Giannettino, Jr..

ROLL CALL – The City Clerk called the roll. Mayor Giannettino and Councilor Ginny Kent, Councilor Rhoda Overstreet-Wilson, Councilor Terry Cuddy and Councilor Christina Calarco were present.

The following City Staff was present for the meeting:

- City Manager, Jeff Dygert
- City Clerk, Chuck Mason
- Corporation Counsel, Nate Garland
- Police Chief, Jim Slayton
- Director of Municipal Utilities, Seth Jensen
- Water Treatment Plant Chief Operator, John West
- Assistant to the Mayor and City Council, Rhonda Miller

Pledge of Allegiance to the Flag – Mayor Giannettino led the Pledge of Allegiance.

Moment of Silent Prayer or Reflection – Mayor Giannettino asked for a moment of silent prayer.

Public Announcements –

The City of Auburn Historic Resources Review Board will not have a meeting in February due to no applications to go before the board.

Ceremonial Presentations –

Public to be heard: The City Clerk read the rules for Public To Be Heard. The following individuals spoke:

Zach Cuipyo, 65 South Street. Once just popular, video doorbell cameras are now ubiquitous without consideration for where those videos are being used. Through conversations with community members and officials off the record, I have learned that those videos are being used by our police officers, either on site provided by the people or submitted, submitted covertly online. Now, these only seem to be

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governed by the person's individual agreement with the company under their terms of service and user license agreement and not by the city. However, if they're being processed by the police, either as evidence or in an investigation, should they not also be governed by the automated software and the review of the police department that we're doing with body cameras. I think this could lead to some disturbing circumstances in the city, such as targeting neighborhoods that have more video surveillance already installed, spiteful neighbors targeting one another. And even surveillance of children on the way to and from school or local playgrounds. I've seen more than one house with cameras that directly face children's places. So, in conclusion, the state has already taken decisive action to address this in people's own backyards. But I think the city owes a duty to their citizens and their citizens data not to have it shared with larger companies and any spiteful neighbors in the city. Thank you.

David Tarala, Bee Line Auto on Seminary Avenue. I'm here to address the unstuck billboard that was on top of 11 Genesee Street. It's been about three and a half weeks now. When that sign came down, it beat my building and put poles through my roof. I had the city throw a drone up there, the firemen went up there. The the work order I got from the fire department was good. I've requested a work order from codes. And they keep stalling me and not giving me one so I can get my roof repaired. I really wish the codes department would start doing better jobs on things like this. Because the back of my building on 11 East Genesee Street was supposed to be a fire exit only, now they are using it as an exit and entrance all the time. Instead of a fire exit. It's going across three different properties, people are getting upset about it. The other issue is is all the furniture that has been left on the corner of Seminary Ave and Arterial East, can we get a camera up on that telephone pole to see who's doing all the couches the beds, the dressers? That is something that should really be requested up there just for theft and a lot of action on that corner there. So if Codes can do their job on that sign to make sure that that sign is safe. That's very important to me because it's adjacent to my building, if it comes down on my building we're gonna have a real problem.

Approval of Meeting Minutes –

January 25, 2024 Council Meeting Minutes

Motion to approve the January 25, 2024 minutes by Councilor Kent, seconded by Councilor Overstreet-Wilson. Motion to approve carried 5-0.

Reports of City Officials

City Manager's Report –

- Earlier today, St. Joseph's Hospital in Syracuse hosted a Celebration of Life event, a reunion of cardiac arrest survivors. In addition to the survivors, the event also recognized the healthcare providers that helped revive the cardiac arrest victims. This particular event recognized the successful cardiac arrest response of four Auburn City Ambulance personnel that responded to an incident on Franklin St on April 3rd, 2023. Their treatment resulted in the Return Of Spontaneous Circulation (ROSC), or more simply, an effective heartbeat unassisted heartbeat. We'd like to also recognize Jannelle Grant, John Roziok, Ron Kenney, and Bobby Cuddy for their efforts on April 3rd and everyday.

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- Last Friday several city staff and the Mayor met with local town leaders and representatives from the Cayuga County Water and Sewer Authority to discuss collaboratively undertaking a third party study to help inform new contracts for the provision of water, inform decisions about future expansion and projects, and generally prepare the entire community up for future needs. We anticipate expanding this initial group to include several more towns and partners.
- Individuals who previously signed up as subscribers to the solar power array installed on the city landfill should begin to see their credit reflected on their February Statement. There is more information on the city webpage, including contact information for billing issues.

Reports from members of Council –

Councilor Kent: Just want to make another comment about the event that was held over at St. Joseph's Hospital regarding the return of spontaneous circulation, that recognized are our crew members here with the ambulance crew. When I first read about that last week, it brought me back several years when my then teenager was diagnosed with sudden cardiac death syndrome called Brugada syndrome. And, he's fine, doing very well, but when we got that diagnosis, it was many years before the legislation in New York State that established guidelines for external defibrillators. And we had several days, in fact, I think it was weeks between the diagnosis and the implantation of an ICD. So, I remember those days in town going to the high school and walking with a nurse to see where the External Defibrillators were, what places in town they were located. And, you know, the doctors said you know, go have your life and we'll let you know when the appointment is for the surgery. But, in reading this about our own team, working on folks all the time, it brought me back to how important this is and I'm so thrilled that we have an outstanding ambulance crew. I know they're experiencing high call value and I thank them for maintaining those high standards. They demonstrate this every day in the community and I just wanted to just again, give them high praise. So, thank you.

Councilor Overstreet-Wilson: I attended the I attended my first Workforce Development Committee meeting this past Monday. And because the committee is being newly redeveloped with new members, we spent some time with just introducing ourselves to one another and kind of speaking about the things that we would like to get out of the committee and hearing Kelly Buck kind of update us in terms of what the old committee had been doing and where she would like the new committee to kind of pick up with what they were doing. So, she talked about having a conversation, a few conversations with the MOST Museum in Syracuse, with their youth development department, and having them come over and do some demonstration, as on different technologies that Micron will be using. So, Jeff Pirozzolo, the Superintendent was there and he is very interested in having, he having conversations with the MOST about them coming to do those demonstrations in the seventh and eighth grade. So, he and Kelly are going to be looking for some money to pay for those workshops. And I'll keep us all informed as they happen. I shared with them that if that does happen, please, please invite some of the City Councilors because we would like to know what the new technology is ourselves and some AI stuff too, that they're going to be doing. So I would definitely keep us informed.

Mayor Giannettino: Earlier this week, myself, the city manager and the city clerk attended the NYCOM Winter Conference in Albany. This is the conference that focuses on the state budget. I'd like to kind of give you a brief rundown of some of the key items that are important to us here locally. First of all, AIM funding, as we've discussed, the executive budget keeps the funding flat for I think a 16th consecutive

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year. So, obviously we've passed our resolution. This is the number one issue that NYCOM is focusing on. I mentioned last week, I think was last week the Syracuse Auditor's report regarding AIM Funding, it's interesting Comptroller DiNapoli spoke Monday morning at the conference and he held up that report and he recommended every municipality read it and apply it to their city. AIM funding is the only budgetary item that he actually takes a position on as Comptroller, because he maintains the position that it's up to the Governor and the Legislature to comprise the budget, but this item he does take a position on and he is adamant that it should be increased. We as a municipality got some attention there because we've passed these resolutions, because there was some press around it. So, we've shared those resolutions with a couple other municipalities. And there seems to be a more concerted effort this time around. So, hopefully we'll get some movement on that. There's a big push for housing. The executive budget expands upon the Governor's Pro Housing Communities initiative by making the Pro Housing Designation a requirement to receive certain discretionary funding, including through the DRI, New York forward, the Regional Council capital fund capital projects, from the Market New York program, the New York Main Street program and what that really entails is us signing a letter of intent to designate ourselves a Pro Housing Community. Miss Haines drafted a letter that I signed today that she's going to be sending along to Albany, I ask everybody to take a look at that.

There's some content regarding the unlicensed sale of cannabis. Right now the office of cannabis management and the Cannabis Control Board are the only agencies that can enforce the illegal sale of cannabis in the state of New York. There's two proposed changes to that, one would commence civil proceedings to shut down on licensed cannabis businesses and localities and would also give local governments the right to establish their own laws regarding the unlicensed sale of cannabis. I'm interested to see how this pans out for us. Obviously, we had great success with the Attorney General's office with "Imstuck" but if we had some more control locally, I think it would be beneficial. The topic that we're very familiar with emergency medical services, the Essential Services Act, something that the manager has brought to the attention of our state representatives time and time again, the executive budget would formally declare emergency medical response and emergency medical dispatch as an essential service, which is a key component of NYCOM's 2024 legislative program. In addition, every County individually or with other local partners would be required to develop a plan to ensure that emergency medical response exists within the County. The proposal would also give counties the authority to individually or with other local governments create ambulance districts. I can tell you from the conversations that I had last year, and again this year, I'm sure the conversations you've had, we are ahead of the curve in the state of New York with what we've done with our ambulance service. And I believe what we've done, I say we, city staff, can set the example for the rest of the state and if you look at what the Governor's budget proposes, it's pretty much what we've done in what we've been trying to do. Restore New York is being funded again, I mentioned that because we have property owners in downtown Auburn, which the Chemung Savings Bank building, they are interested in developing that, so, I'll be reaching out to them to let them know that the funding is proposed in the budget and hopefully, they'll put an application in for that. I had the opportunity Sunday night at the conference to give a presentation with Dan Shapley from River Keeper. He's a strong advocate for purveyors of water to revise our rules and regulations. That hasn't been done, in most municipalities that hasn't been done. He's also a proponent of source water protection programs. So, seeing how we have experienced with, with both of those items, he asked me to present with him, there was about 30 or 40 people present in that meeting, more than half of them are purveyors of water. I shared with them our very painful experience of going through our rules and regulations, and the Source Water Protection Program, how the state has not acted in good faith with us, I explained how we've taken the step to sue the state of New

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York because of that. Just before going to that conference, I've reached out to Mr. Jensen, to see if he had an update on the Source Water Protection Program, I think it's been 18 months since we've heard anything on that. And he was informed by the consultant that we worked with, and I think we had six months worth of meetings, or more, that the state is holding that up because they want to remove any reference to the Rules and Regulations in the Source Water Protection Plan. So, again, just another example of the, I guess, the farce of New York State's commitment to clean water. So, it was good to connect with other municipalities to share our experiences with them and hopefully we can all collaborate on those efforts as well.

Matters to Come Before Council - none

A. State Environmental Quality Review Act Resolutions (SEQR) – none

B. Ordinances – none

C. Local Laws – none

D. Resolutions – none

E. Staff or Vendor Presentations –

- Microcystin Treatment Study Results – with Seth Jensen, Director of Municipal Utilities and Stephen Waldvogel from GHD. See attached presentation slides.

TABLED ITEMS – none

OTHER BUSINESS –

ADJOURNMENT: By unanimous vote the Council adjourned the meeting. The meeting was adjourned at 6:27 p.m..

Minutes submitted by: Chuck Mason, City Clerk



"History's Hometown"

CITY OF AUBURN

Office of the Mayor
Honorable James N. Giannettino, Jr.

February 8, 2024

Hon. Kathy Hochul
Governor, State of New York
New York State Capitol
Albany, NY 12242

RuthAnne Visnauskas
Commissioner & CEO
NYS Homes and Community Renewal
641 Lexington Avenue
New York, NY 10022

Re: Pro-Housing Community Program Letter of Intent

Dear Governor Hochul and Commissioner Visnauskas:

The City of Auburn is in the midst of a housing crisis. The City has witnessed increased rents that people struggle to afford. The number of available units has declined, forcing citizens to pay high rent and eliminating housing access and choices. Citizens are struggling to be able to afford to purchase a home evidenced by the decreased rate of homeownership. The City of Auburn's homeownership rate of 46% falls below the New York State homeownership rate of 54%.

In order to combat the housing crisis, the City of Auburn recognizes that it must take an active role and ensure that it does not have policies and practices that impede housing development. The City is committed to reviewing and providing the following to New York State Homes and Community Renewal:

- Zoning Code Summary
- Housing, Planning, and Building Permit Information from 2018-2022
- Zoning Map
- Pro-Housing Community Resolution approved by the Auburn City Council

The City of Auburn recognizes that the work to alleviate the housing crisis will continue and the City will need to implement practices such as adopting policies that affirmatively further fair housing, streamline permitting, incorporating regional housing needs into planning decisions, increasing development capacity for residential uses, and enacting policies that encourage a broad range of housing development.

The City of Auburn looks forward to becoming a pro-housing community and watching the City flourish from the benefits of supporting housing production of all kinds. It is vital for City of Auburn citizens to have increased housing access and choices, economic opportunities, the ability to improve their quality of life by living closer to their employment opportunities, and have a walkable community.

Sincerely,

James N. Giannettino, Jr.
Mayor



"History's Hometown"

CITY OF AUBURN

Office of the Mayor
Honorable James N. Giannettino, Jr.

February 6, 2024 New York State Legislature Joint Legislative Hearing on Local Government, Legislative Office Building, 181 State Street, Hearing Room B, 2nd Floor, Albany, NY, 12247

Statement from City of Auburn Mayor James N. Giannettino, Jr. on the Importance of AIM Funding for Local Governments

Recently, it was Groundhog Day, and as the classic movie Groundhog Day depicts a Pennsylvania version of the story, a New York State version would see city mayors traveling to Albany to appeal for AIM funding.

My name is Jimmy Giannettino, and I am the new Mayor of the City of Auburn. My predecessor served for 16 years, during which the first three years as Mayor saw state AIM funding cuts each year. In the final 13 years of his tenure, the AIM funding remained flat. For Auburn, the last time AIM funding was cut was in 2011-2012, amounted to a \$141,152 annual reduction. Calculating the cut of \$141,152 annually, we lost almost \$2 million. Furthermore, when using a 2.5% cost of living adjustment, we have been shorted an additional \$2 million due to a lack of increases over 13 years. However, the cost of providing services continues to rise year after year.

The new auditor for the City of Syracuse, Alexander Marion, produced a report on AIM funding and how it affects Syracuse. The report describes a Syracuse scenario similar to how AIM funding has affected Auburn and all other cities in our state. To provide some context and emphasize the importance of AIM funding, let me read a portion of his report: "The Constitution of the United States is silent on local government cities are the products of the regulatory and financial environment of the respective states owing to the reserve powers granted in the 10th amendment. Because of that, cities are financially dependent on their states either through direct aid or by powers to raise revenue through taxation and fees. This model has struggled in recent years to keep up with the ever-changing environment of local laws. Situations have changed, but in New York, that economic model has remained the same. New York State, once a reliable provider of aid to cities throughout much of our history, has not risen to the challenge of this moment. Unfortunately, over the last decade, state aid has



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Honorable James N. Giannettino, Jr.

remained flat while municipal expenditures have increased, necessarily through inflation, contract awards, and state-mandated health care and pension costs."

As the Syracuse Auditor points out, each year that AIM funding is held flat, it puts great strain on every City budget in this state. In fiscal year 2006, when AIM funding was created under Governor Pataki, the State of New York budget was \$105 billion. Thirteen years ago, when the AIM funding was decreased and since frozen, the state budget was \$133 billion. Last year's 2024 state budget grew to \$229 billion, which is a 217% increase in state funding since 2006, which one could argue is not sustainable. The case I am making to the Governor and the members of the legislature is that conducting business in this manner, raising state spending without raising assistance to all of our cities, is not sustainable. It is not sustainable at the state level, and it is not sustainable for us at the local level.

I am currently in Albany, along with our advocacy organization, the New York State Conference of Mayors (NYCOM), to lobby for the restoration and increase of AIM funding. Over the years, our efforts to restore AIM funding have consistently been ignored in Executive Budget proposals. However, we have reason to be optimistic because in recent years, the legislature has made increases to AIM funding a priority in their one-house budget proposals. Nevertheless, the legislature's wishes have not been included in the final state budgets. I urge you all to please restore the sustainability of our cities as a principle of our State Budget and make increasing AIM funding a top priority for the legislature. Then, take the battle all the way to the finish line with the Governor so that the 2024-2025 State Budget will correct this situation for not only the City of Auburn but all of the cities in our State.

I thank you for your time and consideration.

COUNCIL RESOLUTION #24 OF 2024

**REQUESTING THE GOVERNOR AND STATE LEGISLATURE TO INCREASE AID
AND INCENTIVES TO MUNICIPALITIES (AIM) FUNDING PROPOSED IN THE
GOVERNOR'S 2024-2025 NYS BUDGET**

By Mayor Giannettino

February 1, 2024

WHEREAS Aid & Incentive to Municipalities (AIM) funding is the unrestricted State aid that cities and villages in New York receive from the State and such aid is distributed annually via the State budget; and

WHEREAS a strong state and local fiscal partnership is essential to generating economic vitality in all regions of our State and the New York State Budget providing AIM funding to the local governments is a critical component of such a partnership; and

WHEREAS in 2011, when David Patterson was Governor, AIM funding was cut significantly by the State Legislature and that year the City of Auburn's AIM funding was cut by \$329,449.; and

WHEREAS cities, villages and their taxpayers have suffered through multiple years without an increase in AIM funding following that significant cut to the aid in 2011; and

WHEREAS on January 9, 2024 Governor Hochul released her Executive Budget proposal for the State fiscal year 2024-2025 and the proposal held AIM funding for cities and villages at previous year's levels; and

WHEREAS just as annual increases in school aid help school districts comply with the New York State tax cap and maintain essential services, municipal governments need and deserve similar annual increases in State aid; and

WHEREAS the fact that the New York State tax cap remains permanent only accentuates the need for annual increases in AIM funding; and

WHEREAS it is noted that the State of New York has not provided an increase in AIM funding to cities for the past 16 City of Auburn budgets.

NOW, THEREFORE, BE IT RESOLVED that the Mayor and City Council call upon Governor Kathy Hochul, Senator Rachel May and Assemblyman John Lemondes and all members of the NYS Legislature to increase AIM funding in the 2024-2025 New York State Budget; and

BE IT FURTHER RESOLVED that the City Clerk forward a certified copy of this resolution to the Governor and all of our State representatives.

City of Auburn, New York

Seconded by Councilor Overstreet-Wilson

	Ayes	Noes	Excused
Councilor Kent	X		
Councilor Overstreet-Wilson	X		
Councilor Cuddy	X		
Councilor Calarco	X		
Mayor Giannettino	X		
Carried and Adopted	X		

STATE OF NEW YORK)
) SS.:
COUNTY OF CAYUGA)

I, CHARLES MASON, Clerk of the City of Auburn, Cayuga County, New York (the “City”), DO HEREBY CERTIFY:

That I have compared the annexed abstract of the minutes of the meeting of the Council of the City (the “Council”), held on the 1st day of February, 2024, including the Council Resolution #24 of 2024 contained therein, with the original thereof on file in my office, and the attached is a true and correct copy of said original and of the whole of said original so far as the same relates to the subject matters therein referred to.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of the City this 2nd day of February, 2024.



Charles Mason, Clerk
City of Auburn, Cayuga County, New York



→ Stephen Waldvogel, PE
Teresa Misiti, PhD

City of Auburn Powdered Activated Carbon (PAC) Study Summary of Results

Welcome

Agenda

1. Background Introduction

2. Historical Data

3. Phase 1

1. Scope / Methodology
2. Results
3. Conclusions and Limitations

4. Phase 2

1. Scope / Methodology
2. Results
3. Conclusions

5. Discussion

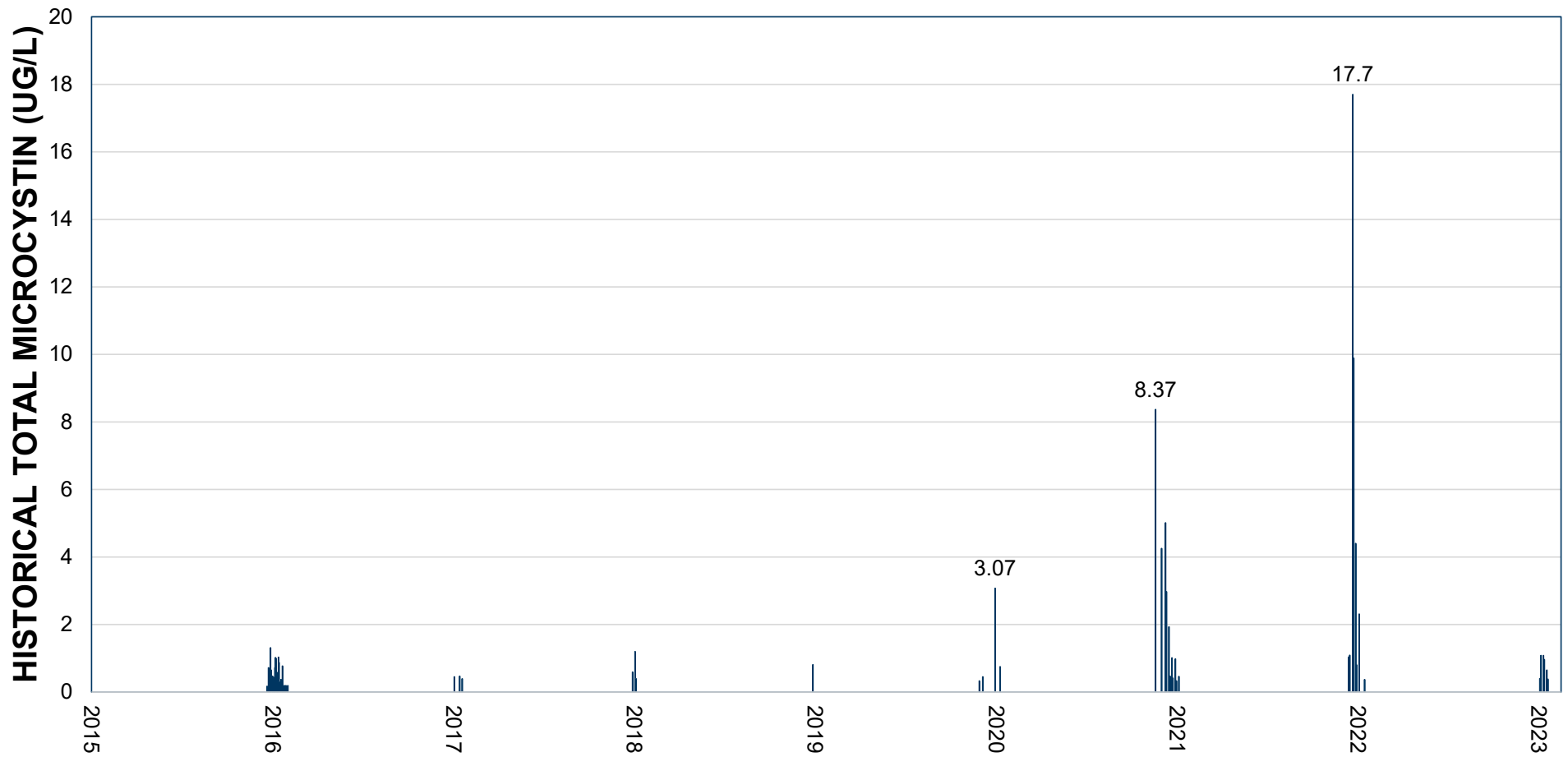
Background & Introduction

Harmful Algal Blooms and Microcystin Concentrations

- 2016 – first observed Microcystin in finished water – below HAL
- 2017 – Implemented PAC system during HAB season
- No recorded Microcystin detections in the finished water since PAC use
- Some escalation in Microcystin concentrations in raw water
- City has been proactively evaluating the PAC system
 - Confirm the type of PAC in use
 - Evaluate the limits of the existing system for microcystin treatment



Historical Total Microcystin Concentrations in Raw Water



Phase 1 - Scope / Methodology

1. Evaluated 5 Different PAC Products from 3 different manufacturers

A. Norit

1. Hydrodarco DXE (City's current PAC product)
2. Hydrodarco B
3. PAC 20BF

B. Calgon

1. WPH 1000

C. Reco

1. VPAC

2. Two Concentrations of synthetic Microcystin-LR

- A. 35 µg/L
- B. 100 µg/L

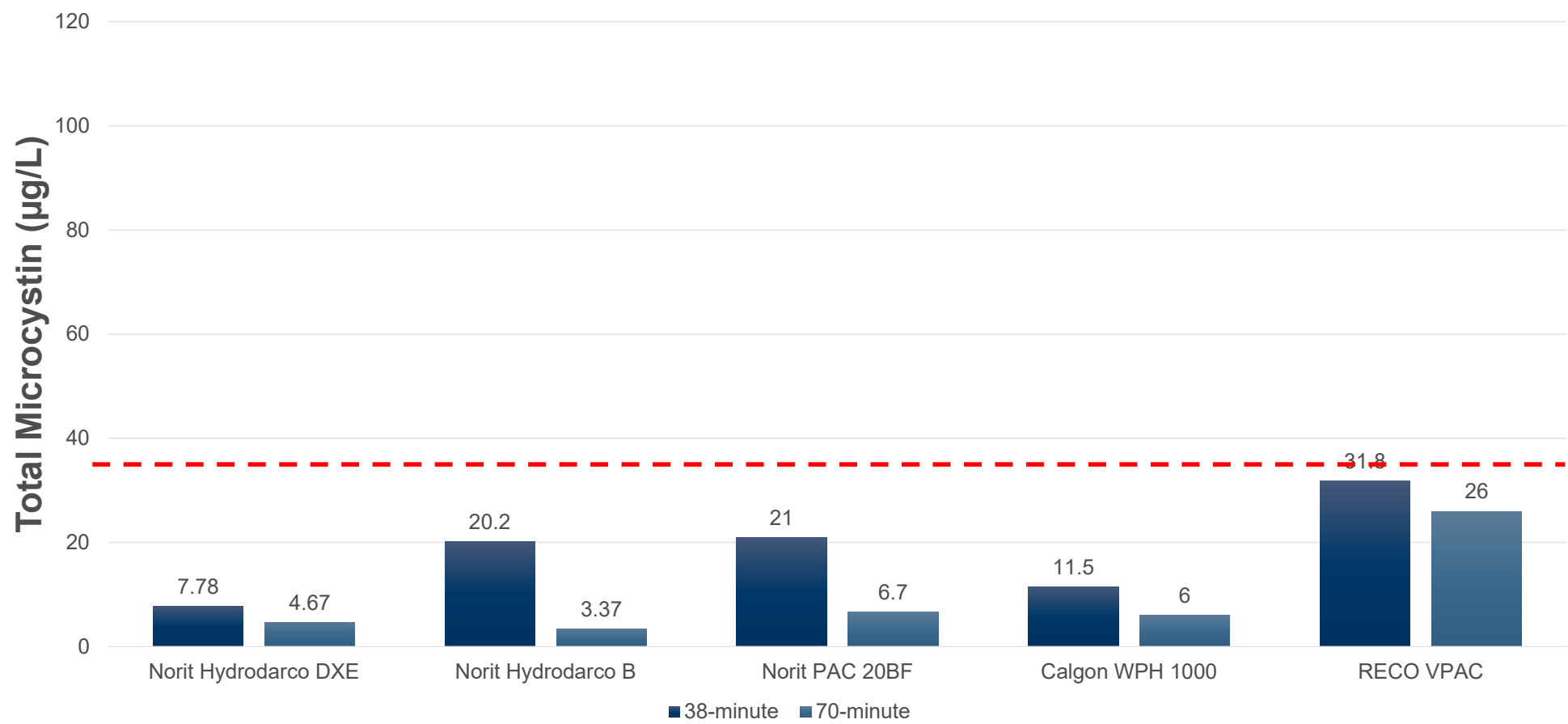
3. Two Contact Times

1. 38 minutes – peak flow (7.5 mgd)
2. 70 minutes – avg day flow (4 mgd)



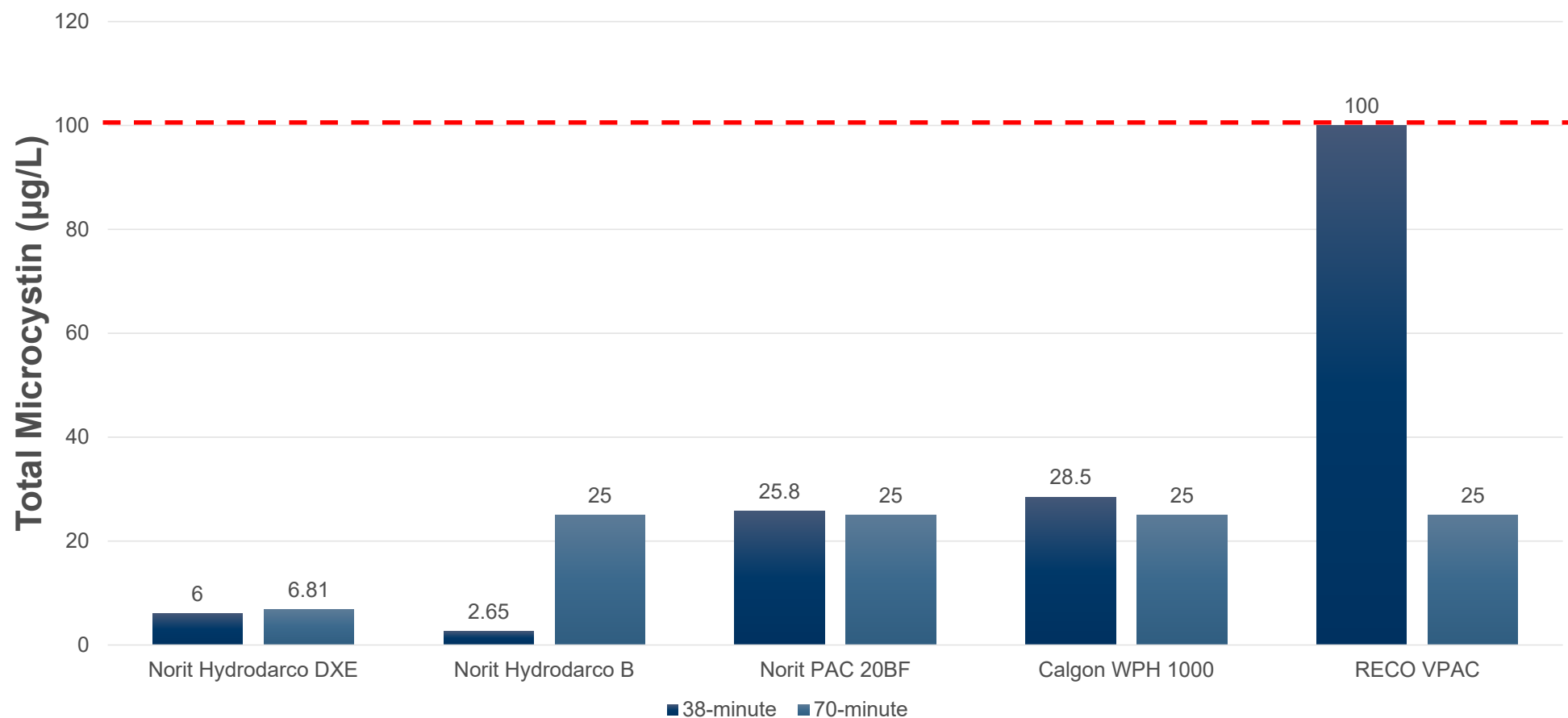
Phase 1 - Results

Effluent Microcystin (Initial Concentration 35 µg/L)



Phase 1 - Results

Effluent Microcystin (Initial Concentration 100 µg/L)



Phase 1 - Conclusions and Limitations

1. Hydrodarco DXE best overall performing PAC product in Phase 1
2. Did not effectively identify upper limit of existing system

Limitations and Considerations

1. **Analytical standard for microcystin-LR has limitations**
 - There are over 300 different congeners for microcystin but analytical standard only includes the one congener
2. **Total/soluble fraction at WTP is unknown**
 - Microcystin is released when a cyanobacterial cell is lysed. Live cells are generally removed through filtration while soluble microcystin is removed by PAC
 - The City's has historically only measured total microcystin. This partially characterizes what the PAC system is treating.

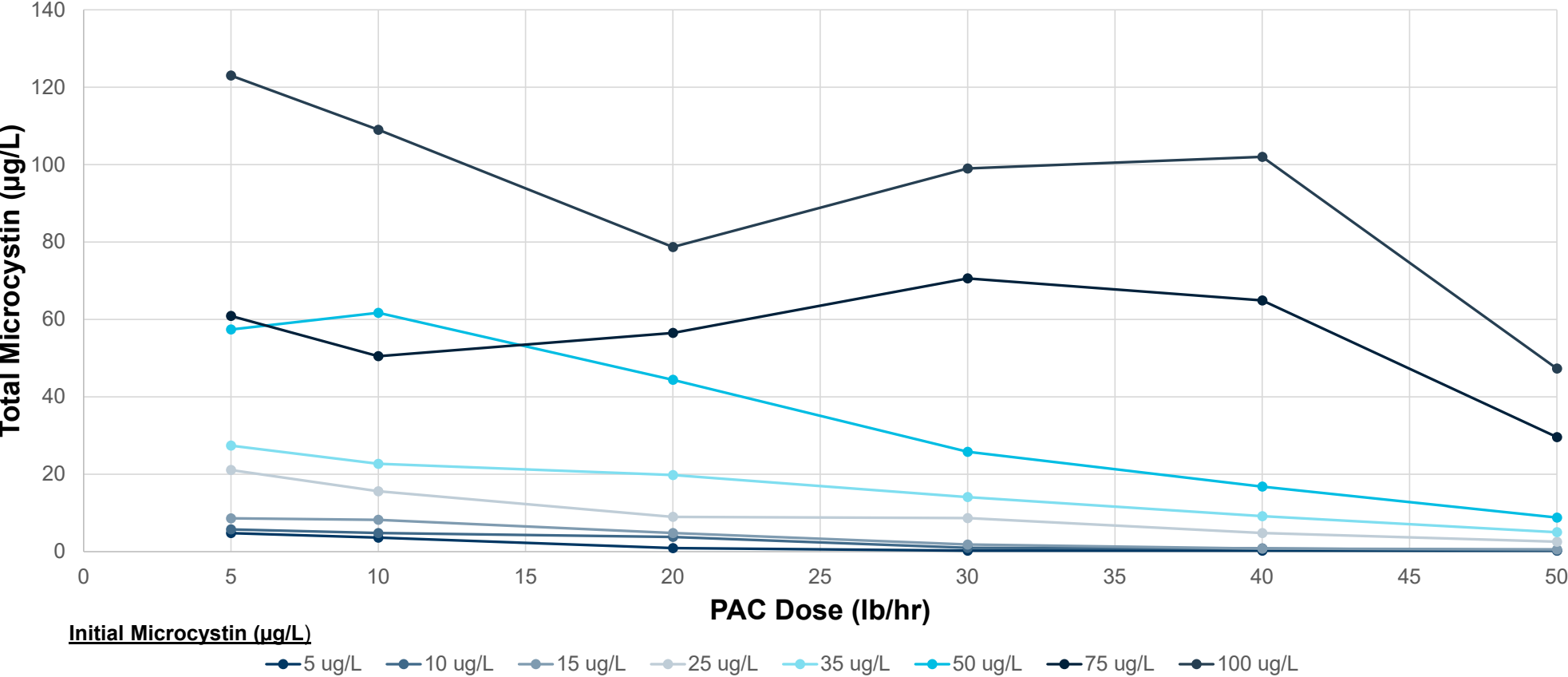
Phase 2 - Scope / Methodology

1. **Evaluated only Hydrodarco DXE** (City's current PAC product)
2. **Collected surface water from Owasco Lake and lysed cells, blended and diluted to the following eight initial concentrations** (plus controls)
 - 5, 10, 15, 25, 35, 50, 75 and 100 µg/L
3. **Six PAC concentrations representing:**
 - 5, 10, 20, 30, 40 and 50 lbs PAC/hr
4. **One Contact Time**
 - 65 minutes – avg day flow (4.5 mgd)

Sample	Soluble (µg/L)	Total (µg/L)
Owasco Lake Water - Raw	99.8 (8%)	1210
Owasco Lake Water - Lysed	1200 (95%)	1260

Phase 2 – Effluent Microcystin

Effluent Microcystin Concentration at Different PAC Doses



Phase 2 – Effluent Total Microcystin

Initial Target Microcystin Concentration		PAC Dose (lbs/hr)					
Target Total (µg/L)	Estimated Soluble	5	10	20	30	40	50
5	4.45	4.8	3.6	0.9	0.26	0.25	0.24
10	8.9	5.8	4.8	3.8	1.0	0.8	0.4
15	13.4	8.6	8.2	<4.8	1.8	0.8	0.6
25	22.3	21.1	15.6	9.0	8.7	<4.8	2.6
35	31.2	27.4	22.7	19.8	14.1	9.2	5.0
50	44.5	57.4	61.7	44.4	25.8	16.8	8.8
75	66.8	60.9	50.5	56.5	70.6	64.9	29.6
100	89	123.0	109.0	78.7	99.0	102.0	47.3

Phase 2 – Percent Removal

Initial Target Microcystin Concentration		PAC Dose (lbs/hr)					
Target Total (µg/L)	Estimated Soluble	5	10	20	30	40	50
5	4.45	4	27	82	95	95	95
10	8.9	42	52	62	90	92	96
15	13.4	43	45	68	88	95	96
25	22.3	16	38	64	65	81	90
35	31.2	22	35	43	60	74	86
50	44.5	-15	-23	11	48	66	82
75	66.8	19	33	25	6	13	61
100	89	-23	-9	21	1	-2	53

Extracellular and Intracellular Microcystin Results

Sample Source	Sample Date	Intracellular	Extracellular
Owasco Lake Water Active Bloom	28-Sep-23	30.4 (99%)	0.3 (1%)
	4-Oct-23	962 (98%)	22.2 (2%)
Auburn Raw Water	12-Oct-23	0.75	<0.3
	17-Oct-23	<0.3	0.38
	19-Oct-23	<0.3	<0.3

PAC dosing requirements are dependent on the extracellular (soluble) fraction of microcystin. It is recommended that that City continue to sample intracellular and extracellular microcystin throughout future bloom seasons to collect additional data and better understand the fraction of each in the City's raw water.

Interpolated Treated Microcystin Concentrations

Hypothetical results at much larger microcystin levels - 3 to 5 times larger than observed to date

Total Hypothetical Microcystin Concentration (µg/L)	Extracellular (Soluble) %	Initial Soluble Microcystin (µg/L)	Est. Treated Microcystin (µg/L)*
50	5%	2.5	0.12
	25%	12.5	0.5
	50%	25	2.6
100	5%	5	0.24
	25%	25	2.6
	50%	50	8.8

*The treated microcystin concentrations were estimated/interpolated from lab results at 50lb/hr PAC dosing. Also assumes all extracellular microcystin is treated by the PAC system. Auburn's WTP has a multi-barrier treatment system, allowing operators to increase hypo dosing to further treat the finished water.

Phase 2 - Conclusions and Limitations

- The City's existing PAC, Hydrodarco DXE, is effective at adsorption of microcystin at concentrations the City has observed in the raw water to date.
- However, if the soluble concentration of microcystin is relatively high, the data has shown that PAC may not reduce microcystin to non-detectable levels
- Our limited results/data show a high % of intracellular microcystin suggesting that most microcystin can be removed by conventional processes. This appears to be consistent with your final water quality results, but is dependent on many conditions including the location and health blooms
- Current process includes regular visual monitoring – this has correlated well with actual microcystin results

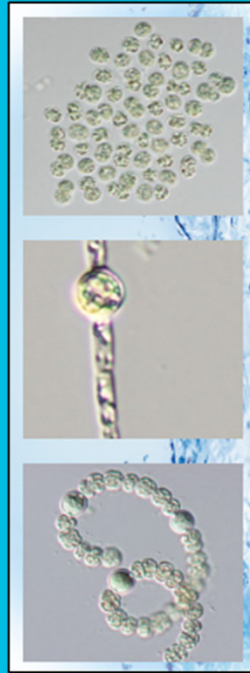
Potential Next Steps

- **Immediate/short-term steps:**
 - Continue to visually monitor for cyanobacteria
 - Increase sampling frequency to monitor intracellular microcystin
 - Evaluate chlorine dosing using AWWA CyanoTox 3.0 model
 - City Council discussion and support around intake relocations feasibility study
- **Intermediate steps:**
 - Continued collaboration with NYS and CC DOH
 - Develop a study to evaluate the removal efficacies of each process (for both intra- and extracellular microcystin) via jar tests and in-situ testing during an upcoming HAB season
 - Examine the multibarrier treatment (i.e., PAC, sedimentation, filtration, oxidation) that the City currently provides against potential future elevated levels of microcystin.
- **Long term considerations:**
 - Consider relocation / extension of raw water intake
 - Revisit other treatment technologies
 - Source protection



Discussion

* Thank You



→ ghd.com