



Agenda
Royal Oak Environmental Advisory Board
Meeting

Wednesday, June 26, 2024, 7:00 p.m.

Royal Oak Farmers Market

316 East Eleven Mile Road

Royal Oak, MI 48067

Anyone planning to attend the meeting who has need of special assistance under the Americans with Disabilities Act (ADA) is asked to contact the city clerk's office at 248-246-3050 at least two (2) business days prior to the meeting.

Pages

1. Call to Order
 2. Approval of Agenda
 3. Approval of Minutes 4
 4. Public Comment
 5. Presentation - John Freeman GLREA
 6. Director of Public Services and Recreation Report
 7. Sustainability Manager Report
- Upcoming Events - [Composting 101](#)** - July 15th, at 6 PM at Brown Iron Brewery

Composting—With the warmer weather, attendance at the farmers' market has been increasing, as has participation in the composting program. We are now consistently filling 3 bins instead of 2. To date, we have diverted over 3.5 tons of food. I am working with the MRC to draft a survey to go out later this month. We have also introduced a Buying club where vendors can purchase compostable packaging and bags in an effort to reduce single-use plastic waste. We also have our first zero-waste wedding planned for September at the market. We are also continuing to work with the schools come fall. We will likely want support with training.

The composting ordinance revision and the adoption of the composting guide were approved by the commission on June 10th.

Nextcycle - Royal Oak was selected as a Nextcycle Accelerator participant for our waste, recycling, and composting efforts. On June 10th and 11th. I attended a two-day work session with EGLE, the MRC, other local governments, and the Nextcycle folks to develop a plan for what waste could look like in Royal Oak. The technical assistance that is being provided is invaluable, and if anyone would like to participate moving forward, you are welcome. The program wraps up in October, where there is a pitch-style competition in which Royal Oak will compete.

Air Quality - I would like to invite [JustAir](#) in for a workshop in August about air quality. I met them at the Mi Healthy Climate Conference; they work with local governments to install air quality monitors and help implement measures to improve air quality. There is grant funding available to install monitors, and with the proximity to so many major highways, I think it is an investment we should consider. I also believe that the next draft of the climate action plan should include action items around air quality, and I would love to know more about the history of that work in Royal Oak.

Royal Oak Pride - We are working to make Royal Oak Pride a zero-waste event. The event takes place the last weekend of July. We will need volunteers to help at waste stations. Sign-up for that will be available soon.

NEED - We will need help running two waste stations on both days. Sign-ups will be released soon. I would love EAB's support on this.

EV Charging—We are planning a special commission meeting in July to update the commissioners on EV charging progress. Once a date has been set, the EAB will be invited to attend.

Solar - We will also use that special commission meeting to provide an update on the Salter Center and Library Solar Projects.

Data—Now that conference season is behind me, more focus can be placed on data collection and metrics for our next GHG inventory. I am working with Paul and Brock on these efforts. More will come at the next meeting.

CEM Grant - Royal Oak has been awarded \$100,000 from the State of Michigan through the Climate and Energy Management Grant. The funds will be used to develop a Battle of the Buildings Style Energy Competition for local businesses and organizations. Royal Oak is working with a fellow from the

University of Michigan and Michigan Battle of the Buildings to develop the program. Each participating business will receive benchmarking through USGBC and a free energy audit. The competition should launch in August.

8. City Commissioner Report
9. New Business
10. Old Business
 - a. Continuation - Bylaw Review 7
11. Subcommittee/Program Updates
 - a. Social Media
12. General Announcements
 - a. Receive and File: 2023 Water System Consumer Confidence Report (CCR) 21
 Attached is the 2023 CCR. This report is delivered to all Royal Oak addresses via the summer Insight newsletter. This is being provided for public record; no board action is necessary.
 - b. Upcoming Events 32
 - **Solarize Royal Oak Meeting – June 27th @ Royal Oak Farmers Market – 7 pm** – Flyer is attached, please distribute to anyone you think may be interested.
 - **Royal Oak School Board Meeting – June 27th @ Churchill** – A group of residents looking to encourage the school board to incorporate more comprehensive and intentional sustainability plans.
 - **Behind the Drywall Tours – July 1st - @ 1805 Greenleaf – 11 am and 6 pm** – Flyer is attached, please distribute to anyone you think may be interested.
 - **Net Zero Energy Home**
13. Adjournment



Minutes

Royal Oak Environmental Advisory Board

May 22, 2024, 7:00 p.m.
Royal Oak Farmers Market
316 East Eleven Mile Road
Royal Oak, MI 48067

Present: Woody Gontina
Tessa Benziger
John Bosack
Zoe Chase
Frank Komola
Julie Lyons Bricker
Paul Vial

Absent: Amanda Herzog
Nicholas Marcelletti
Ed Slesak

1. Call to Order

The meeting was called to order at 7:02 pm.

2. Approval of Agenda

Moved by: Frank Komola
Seconded by: Julie Lyons Bricker

The Royal Oak Royal Environmental Advisory Board approves the agenda for the May 22, 2024 meeting as published.

Motion Adopted

3. Approval of Minutes

Moved by: Zoe Chase
Seconded by: Paul Vial

The Royal Oak Environmental Advisory Board approves the minutes of its April 24, 2024 meeting.

Motion Adopted

4. Public Comment

Chuck - SMART advertising the new bus route to connect several cities line 492. New route connects people on east side of city to transit center which can get to a fast bus to Detroit. He explained a little more information about what is accessible on the line.

5. Director of Public Services and Recreation Report

Woody Gontina shared the update in the packet on the community garden, and the Fred A. Erb Arboretum Grant on behalf of Mr. Filipski.

6. Sustainability Manager Report

Angela Fox shared an updates on her work.

7. City Commissioner Report

Woody Gontina shared an update on behalf of Commissioner Herzog related to allowing student members to vote.

8. New Business

Discussion of summer meetings - could we have meetings in June? July meeting will be discussed in June.

Moved by: Frank Komola

Seconded by: Zoe Chase

Motion to have a meeting on June 26, 2024 at 7 pm at a location to be determined.

Motion Adopted

9. Old Business

9.a Continuation of Bylaw Discussion

The group discussed potential changes to the ordinance and bylaws. In particular the possibility of changing the number of members, allowing students to vote as members of the board.

Julie found the old bylaws from 1990 and would like to review those for consideration.

Overall discussion will be brought up again next month.

The group had a discussion about supporting that student members have the ability to vote as regular members of the board. The group did not have any general opposition to moving this forward but wanted to see specific language.

10. Subcommittee/Program Updates

10.a Discussion of Subcommittees

Mr. Komola is interested in exploring small working groups, in particular one that would exploring a ban on plastic bags and to see how we could encourage more people to use re-usable bags.

10.b Social Media Subcommittee Update

June is home efficiency month, so focusing on that topic.

Would like to post reminder to attend an EAB meeting.

Recruiting for new board members was brought up and the group can post to assist in recruiting.

10.c Community Gardens

Tom Reagan resigned from the board, and we need someone else to step into that role that he was working on to bring more community gardens.

11. General Announcements

Solarize meeting at the end of June.

Behind the drywall tour still coming forward.

Legislative update at the June meeting.

Woody was able to present on renewable energy in the schools

12. Adjournment

The meeting was adjourned at 9:15.

Moved by: John Bosack

Seconded by: Julie Lyons Bricker

Motion to adjourn the meeting.

Motion Adopted

Commission Letter #21-08
 Commission Meeting: 2/4/08
 RE: Name Change - Solid Waste
 Advisory Board

January 25, 2008

THE HONORABLE MAYOR
 AND
 MEMBERS OF CITY COMMISSION

Solid Waste Advisory Board is requesting to change the board name to Royal Oak Environmental Committee and modify their mission statement. The first reason for the name change is to make it a more aesthetically pleasing name. The second reason is due to the increased emphasis on becoming more green as a community not only in areas of waste reduction and recycling but in other areas as well. The committee believes they can be an asset to the city in outreach programs for promoting green technology and acting in an advisory role as the city looks at implementing other green technologies.

The new mission statement adds expanding outreach and enhancements in the areas of air quality, energy, and storm water quality. The city is already doing work in these areas, i.e. the Johnson Control Energy upgrades, SOCWA storm water healthily garden program to name examples.

The attached is the new proposed mission statement for the Royal Oak Environmental Advisory Committee and the current mission statement as approved in 1990.

The following resolution is appropriate for approval:

BE IT RESOLVED that the City Commission hereby approves the renaming the Solid Waste Advisory Board as the "Royal Oak Environmental Advisory Committee".

BE IT FURTHER RESOLVED the new mission statement is approved as attached.

3/4

Greg Rasse

Director Recreation and Public Service

Approved,

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Thomas R. Hoover
 City Manager

Attachment

ROYAL OAK SOLID WASTE ADVISORY BOARD
(Established by Resolution dated November 12, 1990)

BY-LAWS

I. Name

The name of this Board is the "**Royal Oak Solid Waste Advisory Board.**"

II. Purpose

The purpose of the Royal Oak Solid Waste Advisory Board shall be:

- a. The Solid Waste Advisory Board was established by the City Commission to advise and assist in matters pertaining to the City's Solid Waste Program, including reduction, reuse, recycling, composting, incineration and landfills
- b. To assist in informing the public and encouraging citizen participation in the reduction, reuse, recycling and composting of solid waste.
- c. To coordinate programs and projects referred to the Board by the City Commission.

III. Membership and Vacancies

a. The Solid Waste Advisory Board is composed of (9) members appointed by the City Commission. Members are appointed to serve three (3) year staggered terms. The Solid Waste Advisory Board is comprised of the Director of Recreation and Public Service and Superintendent of Public Works as ex-officio members. All members shall be Royal Oak residents. Each officer's term of office shall begin at the close of the organizational meeting immediately following his or her election.

b. All members shall be appointed by the City Commission consistent with the Appointment Ordinance, No. 93-21 as amended by No. 2000-08.

- i. The Board shall promptly notify the City Commission, through the City Clerk's Office of any vacancies on the Board.
- ii. The Board shall also keep the City Clerk's Office timely informed of the names, addresses, telephone numbers and other contact information for each member of the Board.
- iii. Members appointed to fill a vacancy shall hold office until the term expires as set by the City Commission and/or the Appointments Ordinance or until a replacement is appointed.
- iv. Consistent with the Appointment Ordinance, id., absence from three consecutive meetings without excuse and/or five consecutive meetings with or without an excuse, or is convicted of a felony or any other serious crime while serving as a member, the position shall be automatically determined to be vacant and filled pursuant to the Appointment Ordinance, id.
- v. As much as possible membership in the Board shall rotate on staggered terms.

IV. Officers

The following office shall be filled each January; Chairperson, Vice Chairperson and Secretary. Each officer's term of office shall begin at the close of the organizational meeting immediately following his or her election. Such other officers as are deemed

necessary and advisable for the conduct of business, shall be appointed as required by the Royal Oak Solid Waste Advisory Board.

Duties. The **Chairperson** shall preside over the meetings of the Board. The Chairperson shall have no administrative authority over the Board. The **Vice Chairperson** shall assume the duties of the Chairperson in his/hers absence. The **Secretary** will be responsible for correspondence generated as a part of the direction of the Board.

Terms of office. The Chairperson shall appoint a nominating committee at the last regular meeting before the Board January meeting who will present a slate of candidates at the January meeting prior to the election. Officers may hold office for an indeterminate period of time, however, it is the intent that an open election process will take place once each year. Said officers shall be Chairperson, Vice-Chair, and Secretary.

The Chairperson shall preside at all meetings and shall appoint such committees as authorized by the Solid Waste Advisory Board. The Chairperson shall be an ex-officio member of all such committees. The Chairperson shall decide all points of order of procedure unless otherwise directed by the majority of the Solid Waste Advisory Board. The Chairperson shall approve all official correspondence.

V. Meetings

Regular Meetings. Minutes of all regular and special meetings of the Royal Oak Solid Waste Advisory Board shall be recorded by the Secretary and shall be approved by the Board at the next regular meeting. The Solid Waste Advisory Board meetings are held on the third Wednesday of the month beginning at 7:00 PM every other month from September to May and as needed June through August. The Board is free to hold as many meetings as it deems necessary.

Special Meetings. Special meetings of the Board may be called by the Chairperson or by two (2) members of the board.

All meetings of the Board shall comply with the Michigan Open Meetings Act, 267 of the Public Acts of 1976, MCL 15.261 *et seq.* The Board shall notify the City Clerk's Office of all meetings reasonably in advance of the scheduled meeting.

Order of Business. All meetings shall be conducted to conform to the following order:

- a. Meeting Called to order,
- b. Roll Call,
- c. Agenda,
- d. Announcements,
- e. Public Comment,
- f. Approval of Minutes,
- g. Old Business,
- h. New Business, and
- i. Motion to Adjourn

Quorum. A quorum must be present to constitute an official meeting of the Royal Oak Solid Waste Board. A quorum shall consist of 51 percent of the membership.

Minutes. The Board shall keep a permanent journal recording the minutes of all meetings, resolutions and votes. A copy of the minutes of each Royal Oak Solid Waste Advisory Board meeting shall be sent to the City Clerk for distribution to the City

Commission and shall be kept on file in the office of the City Clerk and Director's office of Recreation and Public Service.

Action. All actions by the Board shall be made by motion adopted by a majority of the membership.

VI. Parliamentary Authority

Parliamentary authority for the Board is governed by Robert's Rules of Order (Newly Revised, 10th Edition). In case of conflict between these bylaws and the Robert's Rules of Order, these bylaws control. In case of conflict between these bylaws and any city ordinance, the city ordinance controls. In case of conflict between city ordinance and state legislation, the state legislation controls.

VII. Nominations and Elections of Officers

The Solid Waste Advisory Board is comprised of no more than nine (9) members who shall be residents appointed by the City Commission for three (3) year terms. Each officer's term of office shall begin at the close of the organizational meeting immediately his or her election.

(a) Nominating Board. The Chairperson shall appoint a nominating Board, consisting of two (2) members of the board.

(b) Tie vote. In case of a tie vote, the successful candidate shall be determined by lot conducted by the city clerk or designee.

(c) Vacancies and Special Elections. In the event that a vacancy occurs in the position of the Chairperson, the vice-Chairperson shall automatically assume the position of Chairperson for the remainder of the term.

In the event a vacancy occurs in the position of any officers, a special election will be conducted to elect (a) new officer(s) to fill the vacancy for the remainder of the term. Special elections shall observe the procedures established for general elections.

(d) Voting. The majority of the members voting shall decide general and special elections.

VIII. Biennial Report

The Solid Waste Advisory Board shall prepare a biennial report reviewing the activities of the previous two (2) years. The biennial report shall be placed on file in the office of the City Clerk, with copies sent to the City Manager and City Commission.

IX. Amendment of Bylaws

Adoption. Recommendations to adopt these bylaws to the City Commission shall be adopted by two-thirds vote of the entire membership of the Board.

Recommendations to amend these bylaws to the City Commission may be made by two-thirds vote of the entire membership of the Board.

These bylaws are subject to approval, modification or repeal by the City Commission.

X. General Provisions

No member of the Board shall order or instruct any city staff member to perform any service or duty. The Board is an advisory organization to the City of Royal Oak and its City Commission and acts by making recommendations to the City Commission.

XI. Michigan Freedom of Information Act Compliance Mandatory

The Solid Waste Advisory Board shall specifically comply with the Michigan Freedom of Information Act (FOIA) [Public Act 422 of 1976, MCL§ 15.231 et seq.] and the city's most recent FOIA policy. The City Clerk will assist the Board in compliance.

XII. Michigan Open Meeting Act Compliance Mandatory

The Solid Waste Advisory Board shall specifically comply with the Michigan Open Meetings Act (OMA) [Public Act 267 of 1976, MCL § 15.261 et seq.] The City Clerk will assist the Board in compliance.

XIII. Sunset Provision

The Board is commissioned to conduct business until December 31, 2410, or until abolished by the City Commission.

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Royal Oak Environmental Advisory Board

The mission of the Environmental Advisory Board is to:

(A) Advise City Commission and staff on matters in the community pertaining to solid waste (non-recyclable material) collection and disposal, yard waste recycling, air quality enhancements, hazardous waste management, energy savings, and storm water quality.

(B) Make recommendations to City Commission and staff regarding the development of city-wide community and/or neighborhood programs to address long-range recycling and solid waste disposal issues; programs to address grass, tree limb and leaf recycling; programs to address air quality enhancements; to address hazardous waste recycling and/or disposal; to address energy saving issues; and to educate the community and serve in an advisory capacity regarding storm water quality programs.

(C) Encourage citizen participation in community recycling efforts and promote public education on the environmental benefits of various community programs. Some of these programs include curbside recycling, Christmas tree recycling, composting, ground level ozone action alerts, wood burning bans and household hazardous waste disposal opportunities.

ORDINANCE NO. 2020—

AN ORDINANCE TO ESTABLISH THE ROYAL OAK ENVIRONMENTAL ADVISORY BOARD TO ADVISE AND ASSIST THE CITY COMMISSION, STAFF, AND COMMUNITY MEMBERS WITH PROMOTING SUSTAINABLE ENVIRONMENTAL EFFORTS.

Section 1. TITLE. This ordinance shall be known as and may be cited as the "Royal Oak Environmental Advisory Board Ordinance."

Section 2. STATEMENT OF PURPOSE. This is an ordinance to establish the Royal Oak Environmental Advisory Board. The purpose of the Environmental Advisory Board shall be to advise and assist the environmental sustainability efforts of all city staff, boards, and commissions, and community members. The Environmental Advisory Board shall make recommendations to the city commission on all issues concerning city environmental sustainability efforts.

Section 3. DEFINITIONS. For the purpose of the provisions of this ordinance, the following words and phrases shall be construed to have the meanings herein set forth, unless it is apparent from the context that a different meaning is intended:

ENVIRONMENTAL SUSTAINABILITY EFFORTS: Any policies, programs, projects, initiatives, or events related to the energy waste reduction, climate, air quality, water, waste, resilience, and/or other sustainability issues that improve quality of life and protect the environment.

Section 4. CREATION. In order to encourage and support environmental sustainability efforts in the City of Royal Oak, there is hereby created the Environmental Advisory Board.

Section 5. MEMBERSHIP. The Board shall consist of twelve voting members who have experience or interest in environmental sustainability efforts. One of the twelve voting members shall be a member of the City Commission. The Department of Public Service and Recreation Director or his/her designee shall serve as an ex officio nonvoting member of the Board. All voting board members shall be residents of the city.

Section 6. TERMS OF APPOINTMENT. Board members shall be appointed by the city commission for terms of three years. Initial Board shall be made up of those serving on the existing Environmental Advisory Committee as of the effective date of this ordinance, with members' original appointment terms intact.

Members of the Board shall be eligible for reappointment. Term limits, appointments, reappointments, appointment terminations, and vacancy rules are subject to applicable ordinance provisions. Vacancies shall be filled by appointment by the City Commission.

Section 7. POWERS AND DUTIES.

- A. It shall be the duty of the Board to advise and assist on environmental policies, programs, projects, initiatives, and events that help fulfill established sustainability goals of the City Commission.
- B. It shall be the duty of the Board to assist staff in developing and implementing the sustainability plan and associated action goals that serve to progress the strategy for supporting environmental sustainability efforts in the City of Royal Oak. It shall be the duty of the Board to assist staff develop an annual report that includes updates and reports progress on any previously established goals. In December of each year, the report shall be submitted to the City Commission for approval.
- C. The Board shall have the authority to raise funds for environmental sustainability efforts through the application of grants, private sponsorships, donations, and other fund-raising strategies; including the authority to interact with donors on behalf of the City of Royal Oak. Funds raised and held by the Board are public funds, and shall be reserved for the purposes of this chapter.
- D. The Board shall promote the public awareness of environmental sustainability policies, programs, projects, initiatives, and events in Royal Oak.
- E. The Board shall work with local, state, and national organizations, nonprofits, and businesses to encourage and support environmental sustainability efforts in Royal Oak.

Section 8. ORGANIZATION; MEETINGS; RECORDS.

- A. The Board shall elect a Chair, Vice Chair, Secretary, and any other officers deemed necessary at the beginning of the first meeting of each year. The Chair shall preside over meetings and will serve as a voting member of the Board. The Vice Chair shall perform the duties of the Chair in his/her absence. The Secretary shall record the proceedings of the Board.
- B. At least seven members of the Board shall constitute a quorum for the approval of motions and transaction of its business. An affirmative vote requires at least fifty-one percent of the quorum voting in favor. The Board shall adopt rules for the transaction of its business which shall provide for the time and place of holding meetings.
- C. The Board shall meet at least 8 times per year on a day and time to be established by the Board.
- D. The business that the Board or subcommittees of the Board may perform shall be conducted in compliance with the State of Michigan Open Meetings Act.
- E. The Board shall keep a record of its proceedings and actions. A writing prepared, owned, used, in the possession of, or retained by the Board or subcommittees of the Board in the performance of an official function shall be made available to the public in compliance with the State of Michigan Freedom of Information Act.¹

Section 9. SEVERABILITY. If any Section, subsection, clause, phrase or portion of this ordinance is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such

¹ Editor's Note: See MCLA § 15.231 et seq.

Attachment 2

portion shall be deemed a separate, distinct and independent portion of this ordinance, and such holding shall not affect the validity of the remaining portions of this ordinance.

Section 10. SAVINGS. All proceedings pending and all rights and liabilities existing, acquired or incurred at the time this ordinance takes effect are saved and may be consummated according to the law in force when they are commenced.

Section 11. REPEALER. All ordinances or parts of ordinances in conflict herewith are hereby repealed only to the extent necessary to give this ordinance full force and effect.

Section 12. EFFECTIVE DATE. This ordinance shall take effect ten (10) days after the final passage thereof.

CITY OF ROYAL OAK

Environmental Advisory Board

Approved **Date Approved by City Commission**

I. NAME

The name of this board/Commission is the Environmental Advisory Board.

II. PURPOSE

As established by Chapter 6 of the City of Royal Oak Code of Ordinances, the purpose of the Environmental Advisory Board shall be to advise and assist the environmental sustainability efforts of all City staff, boards, and commissions and community members. The Environmental Advisory Board shall make recommendations to the City Commission on all issues concerning City environmental sustainability efforts.

III. MEMBERSHIP AND VACANCIES

- a. The Environmental Advisory Board shall be made up of 12 total members who have experience or interest in environmental sustainability efforts. One of the 12 voting members shall be a member of the City Commission. All voting members shall be residents of the City.
- b. In addition to the 12 voting member, the Department of Public Service and Recreation Director or his/her designee shall serve as an ex officio nonvoting member of the Board.
- c. In accordance with City Commission policy and appointment process, the board may appoint student representatives to the board who may participate in board meetings as non-voting members.
- d. All members shall be appointed by the City Commission consistent with Chapter 12, Appointments to Advisory Boards, Commissions and Committees, of the City of Royal Oak Code of Ordinances, also known as the Appointments Ordinance.
 - i. The staff ex-officio member shall notify the City Clerk of any vacancies on the Commission who will forward any vacancies to the City Commission for consideration to fill any vacancies.
 - ii. Environmental Advisory Board members shall keep the City Clerk's office informed of changes in their names, addresses, phone number, email address or other basic contact information or anything that might change their status as a commission member.
 - iii. Members appointed to fill a vacancy shall hold office for the original term of the vacancy as set by the City Commission and/or the Appointments Ordinance.

- iv. Members shall comply with ordinances relating to attendance as described in Chapter 12.
- e. Board members shall be appointed by the City Commission for terms of three (3) years.
- f. In accordance with Chapter 12 of the City of Royal Oak Code of Ordinances, members are limited to three consecutive full terms, unless the City Commission specifically finds by resolution that there is not a qualified individual available to replace the member, or that some other special circumstance(s) exists which supports the reappointment of the serving member.

IV. OFFICERS

The Environmental Advisory Board shall, at its first annual meeting, elect a chair, vice chair, secretary, and any other officers deemed necessary.

- a. Chair: The chair shall preside over the meeting and serve as a voting member
- b. Vice-Chair: The vice-chair shall perform the duties of chair in their absence.
- c. Secretary: The secretary shall maintain record of the board's proceedings through the drafting of meeting minutes and provide the same to the staff ex-officio in advance of each meeting.
- d. Staff Ex-Officio: The staff ex-officio member shall serve as liaison between the board and city staff and fulfill the duties of the Secretary in his/her absence.

Term: All officers, except for the staff ex-officio member, shall serve a one (1) year term.

The Environmental Advisory Board has the authority to remove a member from serving as an officer of the board but does not have the authority to remove a member from their appointment to the board. The Environmental Advisory Board may remove a member from being an officer by motion, second, and the concurring affirmative vote of 51% of the quorum members present.

V. NOMINATIONS AND ELECTIONS OF OFFICERS

The Environmental Advisory Board shall hold the election of officers annually during the first meeting of the calendar year. Any member of the Environmental Advisory Board may be nominated if they meet the requirements for officers, if any, described in these bylaws.

Members may nominate themselves or any other appointed member of the Environmental Advisory Board.

An affirmative vote of the 51% of members present for the election shall be required to be elected as an officer.

VI. CODE OF CONDUCT

In general, the use of good judgment, based on high ethical principles, will guide the officers and members of the Environmental Advisory Board with respect to lines of acceptable conduct. The successful operation and reputation of Royal Oak boards and commissions is built upon the principles of fair dealing and ethical conduct of members. Integrity and excellence require careful observance of the spirit and letter of all applicable laws and personal integrity. Failure to abide by these basic principles may result in removal from the Environmental Advisory Board by the City Commission.

VII. MEETINGS

a. Meeting Schedule

Regular Meetings. The Environmental Advisory Board shall adopt a schedule of regular meetings for the next year no later than the final meeting of the calendar year.

Frequency. The Environmental Advisory Board shall meet at least eight (8) times per year, on a date and time to be established by the board.

Special Meetings. Special meetings of the Environmental Advisory Board may be called by the chair or by two members of the board in accordance with the Michigan Open Meetings Act. The Environmental Advisory Board shall notify the staff liaison of all special meetings reasonably in advance of the scheduled meeting so that the notice of the meeting shall be timely published as required by the Open Meetings Act.

All meetings of the board shall be subject to the Michigan Open Meetings Act, Act 267 of the Public Acts of 1976, MCL 15.261 et seq.

b. Order of Business. Without precluding the addition of other agenda item categories, all meeting agendas shall, at a minimum, include the following:

1. Call to order
2. Roll Call
3. Agenda Approval
4. Public Comment
5. Minutes
6. Business Items
7. Adjournment

c. Quorum. A minimum of seven (7) members of the Environmental Advisory Board shall constitute a quorum for the purpose of motions and the transaction of business.

- d. Minutes. The Secretary shall be responsible for taking minutes at board meetings. In his/her absence, the staff ex-officio shall be responsible for taking minutes. The staff ex-officio shall be responsible for maintaining minutes and other records of meetings in accordance with applicable city codes, regulations, and/or policies.
- e. Action. All action by the Environmental Advisory Board shall be made by motion adopted by the concurring affirmative vote of at least 51% of quorum present unless otherwise required by ordinance or state ordinance.
- f. Public Comment. The board shall follow the city commission's standard procedure for public comment. The chair has the ability to extend the three minutes per person limit.

VIII. PARLIAMENTARY AUTHORITY

Parliamentary authority for the Environmental Advisory Board is governed by Robert's Rules of Order. In case of conflict between these bylaws and the Robert's Rules of Order, these bylaws control. In case of conflict between these bylaws and any city ordinance, the city ordinance controls. In case of conflict between city ordinance and state law, the state law controls.

IX. ADOPTION OR AMENDMENT OF BYLAWS

- a. The Environmental Advisory Board shall make a recommendation to adopt the bylaws to the Royal Oak City Commission. A recommendation to adopt, modify or repeal the bylaws shall be approved by two-thirds of the entire membership of the Environmental Advisory Board.
- b. The Royal Oak City Commission has the authority to approve, amend, or repeal these bylaws.
- c. The Environmental Advisory Board shall review these bylaws annually at its second meeting in the calendar year. If there are no proposed amendments then no action is needed by the board and the existing bylaws will remain in effect.

X. GENERAL PROVISIONS

No member of the board shall order or instruct city staff members to perform any service or duty. If a board feels that they are inadequately supported they can address that through the staff liaison and the city manager.

XI. MICHIGAN FREEDOM OF INFORMATION ACT COMPLIANCE MANDATORY

The Environmental Advisory Board shall comply with the Michigan Freedom of Information Act (FOIA) [Public Act 422 of 1976, MCL § 15.231 et seq.] and the city's current FOIA policy. The City Clerk and Human Resource Director shall assist the board in compliance.

XII. MICHIGAN OPEN MEETINGS ACT COMPLIANCE MANDATORY

The Environmental Advisory Board shall comply with the Michigan Open Meetings Act (OMA) [Public Act 267 of 1976, MCL § 15.261 et seq.].

XIII. ACCESSIBILITY

Anyone planning to attend a public meeting of the Environmental Advisory Board who has need of special assistance under the Americans with Disabilities Act (ADA) is asked to contact the City Clerk's office at 248-246-3050 or email CityClerk@romi.gov at least two (2) business days prior to the meeting so that the city can support the full participation of members of the community.

CITY OF ROYAL OAK

2023 CONSUMERS ANNUAL REPORT ON WATER QUALITY

ATTENTION: THIS IS AN IMPORTANT REPORT ON WATER QUALITY AND SAFETY

The City of Royal Oak, The Southeastern Oakland County Water Authority (SOCWA) and the Great Lakes Water Authority (GLWA) are proud of the fine drinking water they supply and are honored to provide this report to you. The 2023 Consumers Annual Report on Water Quality shows the sources of our water, lists the results of our tests, and contains important information about water and health. We will notify you immediately if there is ever any reason for concern about our water. We are pleased to show you how we have surpassed water quality standards as mandated by the Environmental Protection Agency (EPA) and the Michigan Department of Environment, Great Lakes, and Energy (EGLE).

About the System

The City of Royal Oak purchases water from the Southeastern Oakland County Water Authority (SOCWA) at thirteen locations. SOCWA provides GLWA water through its member distribution systems to a population of 210,000 within a 56 square mile area. Current members are Berkley, Beverly Hills, Bingham Farms, Birmingham, Clawson, Huntington Woods, Lathrup Village, Pleasant Ridge, Royal Oak, Southfield, and Southfield Township.

Your source water comes from the Detroit River, situated within the Lake St. Clair, Clinton River, Detroit River, Rouge River, Ecorse River, watersheds in the U.S. and parts of the Thames River, Little River, Turkey Creek and Sydenham watersheds in Canada. The Michigan Department of Environmental Quality in partnership with the U.S. Geological Survey, the Detroit Water and Sewerage Department, and the Michigan Public Health Institute performed a source water assessment in 2004 to determine the susceptibility of GLWA's Detroit River source water for potential contamination. The susceptibility rating is based on a seven-tiered scale and ranges from very low to very high determined primarily using geologic sensitivity, water chemistry, and potential contaminant sources. The report described GLWA's Detroit River intakes as highly susceptible to potential contamination. GLWA's water treatment plants Northeast and Springwells that draw water from the Detroit River has historically provided satisfactory treatment and meets drinking water standards.

And/or

Your source water comes from the lower Lake Huron watershed. The watershed includes numerous short, seasonal streams that drain to Lake Huron. The Michigan Department of Environmental Quality in partnership with the U.S. Geological Survey, the Detroit Water and Sewerage Department, and the Michigan Public Health Institute performed a source water assessment in 2004 to determine the susceptibility of potential contamination. The susceptibility rating is a seven-tiered scale ranging from "very low" to "very high" based primarily on geologic sensitivity, water chemistry, and contaminant sources. The Lake Huron source water intake is categorized as having a moderately low susceptibility to potential contaminant sources. The Lake Huron water treatment plant has historically provided satisfactory treatment of this source water to meet drinking water standards.

GLWA has initiated source-water protection activities that include chemical containment, spill response, and a mercury reduction program. GLWA participates in the National Pollutant Discharge Elimination System permit discharge program and has an emergency response management plan. GLWA has an updated Surface Water Intake Protection plan for the Lake Huron water intake. The plan has seven elements that include: roles and duties of government units and water supply agencies, delineation of a source water protection areas, identification of potential sources of contamination, management approaches for protection, contingency plans, siting of new water sources, public participation, and public education activities. If you would like to know more

information about the Source Water Assessment Report, please, contact GLWA at (313 926-8127).

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it can dissolve naturally occurring minerals and, in some cases, radioactive materials, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharge, oil and gas production, mining, or farming.

Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.

Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff and septic systems.

Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations, which limit the amount of certain contaminants in the water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Key to the Detected Contaminants Table

| Symbol | Abbreviation | Definition/Explanation |
|---------|--|---|
| AL | Action Level | The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements which a water system must follow. |
| °C | Celsius | A scale of temperature in which water freezes at 0° and boils at 100° under standard conditions. |
| > | Greater than | |
| HAA5 | Haloacetic Acids | HAA5 is the total of bromoacetic, chloroacetic, Dibromoacetic, dichloroacetic, and trichloroacetic acids. Compliance is based on the total. |
| Level 1 | Level 1 Assessment | A study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in the water system. |
| LRAA | Locational Running Annual Average | The average of analytical results for samples at a particular monitoring location during the previous four quarters. |
| MCL | Maximum Contaminant Level | The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology. |
| MCLG | Maximum Contaminant Level Goal | The level of contaminant in drinking water below which there is no known or expected risk to health. |
| MRDL | Maximum Residual Disinfectant Level | The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants. |
| MRDLG | Maximum Residual Disinfectant Level Goal | The level of a drinking water disinfectant below which there is no known or expected risk to health. MRLDG's do not reflect the benefits of the use of disinfectants to control microbial contaminants. |
| n/a | not applicable | |
| ND | Not Detected | Below the detection limit of the method |
| NTU | Nephelometric Turbidity Units | Measures the cloudiness of water. |
| pCi/L | Picocuries Per Liter | A measure of radioactivity |
| ppb | Parts Per Billion (one in one billion) | The ppb is equivalent to micrograms per liter. A microgram = 1/1000 milligram. |
| ppm | Parts Per Million (one in one million) | The ppm is equivalent to milligrams per liter. A milligram = 1/1000 gram. |
| RAA | Running Annual Average | The average of analytical results for all samples during the previous four quarters. |
| SMCL | Secondary Maximum Contaminant Level | An MCL which involves a biological, chemical or physical characteristic of water that may adversely affect the taste, odor, color or appearance (aesthetics), which may thereby affect public confidence or acceptance of the drinking water. |
| TT | Treatment Technique | A required process intended to reduce the level of a contaminant in drinking water. |
| TTHM | Total Trihalomethanes | Total Trihalomethanes is the sum of chloroform, bromodichloromethane, dibromochloromethane and bromoform. Compliance is based on the total. |
| µmhos | Micromhos | Measure of electrical conductance of water |

2023 Springwells Regulated Detected Contaminants Table

| 2023 Inorganic Chemicals - Annual Monitoring at Plant Finished Tap | | | | | | | | |
|--|------------|------|------------------|-------------------|------------------------|--------------------|-----------|--|
| Regulated Contaminant | Test Date | Unit | Health Goal MCLG | Allowed Level MCL | Highest Level Detected | Range of Detection | Violation | Major Sources in Drinking Water |
| Fluoride | 04-11-2023 | ppm | 4 | 4 | 0.86 | n/a | no | Erosion of natural deposit; Water additive, which promotes strong teeth; Discharge from fertilizer and aluminum factories. |
| Nitrate | 04-11-2023 | ppm | 10 | 10 | 0.63 | n/a | no | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits. |

| 2023 Disinfection Residual - Monitoring in the Distribution System | | | | | | | | |
|--|-----------|------|-------------------|--------------------|-------------------|----------------------------|-----------|---|
| Regulated Contaminant | Test Date | Unit | Health Goal MRDLG | Allowed Level MRDL | Highest Level RAA | Range of Quarterly Results | Violation | Major Sources in Drinking Water |
| Chlorine Residual | 2023 | ppm | 4 | 4 | 0.74 | 0.67-0.81 | no | Water additive used to control microbes |

| 2023 Turbidity - Monitored Every 4 Hours at the Plant Finished Water Tap | | | | | | | | |
|--|--|--|--|--|--|-----------|---------------------------------|--|
| Highest Single Measurement Cannot Exceed 1 NTU | | Lowest Monthly % of Samples Meeting Turbidity Limit of 0.3 NTU (minimum 95%) | | | | Violation | Major Sources in Drinking Water | |
| 0.09 NTU | | 100% | | | | no | Soil Runoff | |

| Regulated Contaminant | Treatment Technique | | Typical Source of Contaminant |
|--------------------------|--|--|-------------------------------|
| Total Organic Carbon ppm | The Total Organic Carbon (TOC) removal ratio is calculated as the ratio between the actual TOC removal and the TOC removal requirements. The TOC is measured each quarter and because the level is low, there is no requirement for TOC removal. | | Erosion of natural deposits |

| 2023 Special Monitoring | | | | | | |
|-------------------------|------------|------|------|-----|------------------------|-----------------------------|
| Contaminant | Test Date | Unit | MCLG | MCL | Highest Level Detected | Source of Contaminant |
| Sodium | 04-11-2023 | ppm | n/a | n/a | 7.0 | Erosion of natural deposits |

These tables are based on tests conducted by GLWA in the year 2023 or the most recent testing done within the last five calendar years. GLWA conducts tests throughout the year only tests that show the presence of a substance or require special monitoring are presented in these tables. The State allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. The data is representative of the water quality, but some are more than one year old.

2023 Springwells Tap Water Mineral Analysis

| Parameter | Units | Max. | Min. | Avg. | Parameter | Units | Max. | Min. | Avg. |
|------------------------|-------|-------|-------|-------|------------------------------|-------|------|------|------|
| Turbidity | NTU | 1.08 | 0.03 | 0.14 | Phosphorus | ppm | 0.61 | 0.37 | 0.49 |
| Total Solids | ppm | 153 | 115 | 138 | Free Carbon Dioxide | ppm | 11.6 | 4.4 | 8.4 |
| Total Dissolved Solids | ppm | 156 | 102 | 129 | Total Hardness | ppm | 146 | 90 | 116 |
| Aluminum | ppm | 0.077 | 0.018 | 0.038 | Total Alkalinity | ppm | 94 | 70 | 77 |
| Iron | ppm | 0.4 | 0.2 | 0.3 | Carbonate Alkalinity | ppm | ND | ND | ND |
| Copper | ppm | 0.003 | ND | 0.001 | Bi-Carbonate Alkalinity | ppm | 94 | 70 | 77 |
| Magnesium | ppm | 8.4 | 7.2 | 7.9 | Non-Carbonate Hardness | ppm | 66 | 10 | 39 |
| Calcium | ppm | 28.5 | 25.3 | 26.9 | Chemical Oxygen Demand | ppm | 11.1 | ND | 4.5 |
| Sodium | ppm | 7.0 | 4.6 | 5.3 | Dissolved Oxygen | ppm | 20.0 | 7.2 | 11.4 |
| Potassium | ppm | 1.3 | 1.0 | 1.0 | Nitrite Nitrogen | ppm | ND | ND | 0.0 |
| Manganese | ppm | 0.001 | ND | ND | Nitrate Nitrogen | ppm | 0.63 | 0.32 | 0.38 |
| Lead | ppm | ND | ND | ND | Fluoride | ppm | 0.86 | 0.10 | 0.59 |
| Zinc | ppm | 0.003 | ND | 0.001 | pH | | 7.52 | 7.09 | 7.28 |
| Silica | ppm | 2.9 | 1.1 | 2.1 | Specific Conductance @ 25 °C | µmhos | 219 | 180 | 191 |
| Sulfate | ppm | 32.3 | 22.5 | 25.0 | Temperature | °C | 23.4 | 3.4 | 13.2 |
| Chloride | ppm | 11.5 | 9.5 | 10.4 | | | | | |

2023 Northeast Regulated Detected Contaminants Table

| 2023 Inorganic Chemicals - Annual Monitoring at Plant Finished Tap | | | | | | | | |
|--|------------|------|------------------|-------------------|------------------------|--------------------|-----------|--|
| Regulated Contaminant | Test Date | Unit | Health Goal MCLG | Allowed Level MCL | Highest Level Detected | Range of Detection | Violation | Major Sources in Drinking Water |
| Fluoride | 04-11-2023 | ppm | 4 | 4 | 0.65 | n/a | no | Erosion of natural deposit; Water additive, which promotes strong teeth; Discharge from fertilizer and aluminum factories. |
| Nitrate | 04-11-2023 | ppm | 10 | 10 | 0.64 | n/a | no | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits. |

| 2023 Disinfection Residual - Monitoring in the Distribution System | | | | | | | | |
|--|-----------|------|-------------------|--------------------|-------------------|----------------------------|-----------|---|
| Regulated Contaminant | Test Date | Unit | Health Goal MRDLG | Allowed Level MRDL | Highest Level RAA | Range of Quarterly Results | Violation | Major Sources in Drinking Water |
| Chlorine Residual | 2023 | ppm | 4 | 4 | 0.69 | 0.55-0.76 | no | Water additive used to control microbes |

| 2023 Turbidity - Monitored Every 4 Hours at the Plant Finished Water Tap | | | |
|---|--|-----------|---------------------------------|
| Highest Single Measurement Cannot Exceed 1 NTU | Lowest Monthly % of Samples Meeting Turbidity Limit of 0.3 NTU (minimum 95%) | Violation | Major Sources in Drinking Water |
| 0.11 NTU | 100% | no | Soil Runoff |
| Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system | | | |

| Regulated Contaminant | Treatment Technique | | Typical Source of Contaminant |
|--------------------------|--|--|-------------------------------|
| Total Organic Carbon ppm | The Total Organic Carbon (TOC) removal ratio is calculated as the ratio between the actual TOC removal and the TOC removal requirements. The TOC is measured each quarter and because the level is low, there is no requirement for TOC removal. | | Erosion of natural deposits |

| 2023 Special Monitoring | | | | | | |
|-------------------------|------------|------|------|-----|------------------------|-----------------------------|
| Contaminant | Test Date | Unit | MCLG | MCL | Highest Level Detected | Source of Contaminant |
| Sodium | 04-11-2023 | ppm | n/a | n/a | 7.3 | Erosion of natural deposits |

These tables are based on tests conducted by GLWA in the year 2023 or the most recent testing done within the last five calendar years. GLWA conducts tests throughout the year only tests that show the presence of a substance or require special monitoring are presented in these tables. The State allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. The data is representative of the water quality, but some are more than one year old.

2023 Northeast Tap Water Mineral Analysis

| Parameter | Units | Max. | Min. | Avg. | Parameter | Units | Max. | Min. | Avg. |
|------------------------|-------|-------|-------|-------|-------------------------------|-------|------|------|------|
| Turbidity | NTU | 3.00 | 0.03 | 0.30 | Phosphorus | ppm | 0.66 | 0.36 | 0.47 |
| Total Solids | ppm | 157 | 113 | 133 | Free Carbon Dioxide | ppm | 16.4 | 6.7 | 10.0 |
| Total Dissolved Solids | ppm | 159 | 101 | 129 | Total Hardness | ppm | 138 | 98 | 113 |
| Aluminum | ppm | 0.071 | 0.018 | 0.038 | Total Alkalinity | ppm | 94 | 68 | 81 |
| Iron | ppm | 0.4 | 0.2 | 0.3 | Carbonate Alkalinity | ppm | ND | ND | ND |
| Copper | ppm | 0.003 | 0.001 | 0.001 | Bi-Carbonate Alkalinity | ppm | 94 | 68 | 80 |
| Magnesium | ppm | 8.3 | 6.7 | 7.7 | Non-Carbonate Hardness | ppm | 48 | 8 | 32 |
| Calcium | ppm | 28.6 | 24.9 | 26.6 | Chemical Oxygen Demand | ppm | 9.2 | ND | 4.6 |
| Sodium | ppm | 7.3 | 4.6 | 5.4 | Dissolved Oxygen | ppm | 13.5 | 7.3 | 10.2 |
| Potassium | ppm | 1.3 | 0.9 | 1.0 | Nitrite Nitrogen | ppm | ND | ND | 0.0 |
| Manganese | ppm | ND | ND | ND | Nitrate Nitrogen | ppm | 0.64 | 0.30 | 0.38 |
| Lead | ppm | ND | ND | ND | Fluoride | ppm | 0.86 | 0.50 | 0.63 |
| Zinc | ppm | 0.003 | ND | ND | pH | | 7.35 | 7.03 | 7.21 |
| Silica | ppm | 2.8 | 1.6 | 2.1 | Specific Conductance @ 25 °C. | µmhos | 262 | 177 | 213 |
| Sulfate | ppm | 34.9 | 22.3 | 25.8 | Temperature | °C | 23.2 | 6.7 | 15.0 |
| Chloride | ppm | 14.0 | 7.5 | 10.4 | | | | | |

2023 Lake Huron Regulated Detected Contaminants Table

| 2023 Inorganic Chemicals - Annual Monitoring at Plant Finished Tap | | | | | | | | |
|--|------------|------|------------------|-------------------|------------------------|--------------------|-----------|--|
| Regulated Contaminant | Test Date | Unit | Health Goal MCLG | Allowed Level MCL | Highest Level Detected | Range of Detection | Violation | Major Sources in Drinking Water |
| Fluoride | 04-11-2023 | ppm | 4 | 4 | 0.70 | n/a | no | Erosion of natural deposit; Water additive, which promotes strong teeth; Discharge from fertilizer and aluminum factories. |
| Nitrate | 04-11-2023 | ppm | 10 | 10 | 0.38 | n/a | no | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits. |

| 2023 Disinfection Residual - Monitoring in the Distribution System | | | | | | | | |
|--|-----------|------|-------------------|--------------------|-------------------|----------------------------|-----------|---|
| Regulated Contaminant | Test Date | Unit | Health Goal MRDLG | Allowed Level MRDL | Highest Level RAA | Range of Quarterly Results | Violation | Major Sources in Drinking Water |
| Total Chlorine Residual | 2023 | ppm | 4 | 4 | 0.76 | 0.68 – 0.84 | no | Water additive used to control microbes |

| 2023 Turbidity - Monitored Every 4 Hours at the Plant Finished Water Tap | | | |
|--|--|-----------|---------------------------------|
| Highest Single Measurement Cannot Exceed 1 NTU | Lowest Monthly % of Samples Meeting Turbidity Limit of 0.3 NTU (minimum 95%) | Violation | Major Sources in Drinking Water |
| 0.14 NTU | 100 % | no | Soil Runoff |
| Turbidity is a measure of the cloudiness of water. We monitor it because it is a good indicator of the effectiveness of our filtration system. | | | |

| Regulated Contaminant | Treatment Technique | | Typical Source of Contaminant |
|--------------------------|--|--|-------------------------------|
| Total Organic Carbon ppm | The Total Organic Carbon (TOC) removal ratio is calculated as the ratio between the actual TOC removal and the TOC removal requirements. The TOC is measured each quarter and because the level is low, there is no requirement for TOC removal. | | Erosion of natural deposits |

| 2023 Special Monitoring | | | | | | |
|-------------------------|------------|------|------|-----|------------------------|-----------------------------|
| Contaminant | Test Date | Unit | MCLG | MCL | Highest Level Detected | Source of Contaminant |
| Sodium | 04-11-2023 | ppm | n/a | n/a | 4.8 | Erosion of natural deposits |

These tables are based on tests conducted by GLWA in the year 2023 or the most recent testing done within the last five calendar years. GLWA conducts tests throughout the year only tests that show the presence of a substance or require special monitoring are presented in these tables. The State allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. The data is representative of the water quality, but some are more than one ye

| 2023 Lake Huron Tap Water Mineral Analysis | | | | | | | | | |
|--|--------|-------|-------|-------|-------------------------------|-------|------|------|------|
| Parameter | Units | Max. | Min. | Avg. | Parameter | Units | Max. | Min. | Avg. |
| Turbidity | N.T.U. | 0.09 | 0.05 | 0.07 | Phosphorus | mg/L | 0.56 | 0.40 | 0.45 |
| Total Solids | mg/L | 146 | 61 | 122 | Free Carbon Dioxide | mg/L | 8.4 | 4.4 | 6.2 |
| Total Dissolved Solids | mg/L | 153 | 103 | 123 | Total Hardness (3), (4), (5) | mg/L | 140 | 96 | 113 |
| Aluminum | mg/L | 0.071 | 0.018 | 0.042 | Total Alkalinity (3) | mg/L | 92 | 74 | 81 |
| Iron | mg/L | 0.4 | 0.2 | 0.3 | Carbonate Alkalinity (3) | mg/L | ND | ND | ND |
| Copper | mg/L | 0.001 | ND | ND | Bi-Carbonate Alkalinity (3) | mg/L | 92 | 74 | 81 |
| Magnesium | mg/L | 7.9 | 7.0 | 7.7 | Non-Carbonate Hardness (3) | mg/L | 58 | 16 | 31 |
| Calcium | mg/L | 27.2 | 25.0 | 25.9 | Chemical Oxygen Demand | mg/L | 12.8 | ND | 4.7 |
| Sodium | mg/L | 5.5 | 4.5 | 4.9 | Dissolved Oxygen | mg/L | 13.3 | 8.5 | 10.8 |
| Potassium | mg/L | 1.1 | 0.9 | 1.0 | Nitrite Nitrogen | mg/L | ND | ND | ND |
| Manganese | mg/L | ND | ND | ND | Nitrate Nitrogen | mg/L | 0.55 | 0.33 | 0.38 |
| Lead | mg/L | ND | ND | ND | Fluoride | mg/L | 0.79 | 0.59 | 0.73 |
| Zinc | mg/L | 0.008 | ND | 0.002 | pH | | 7.56 | 7.34 | 7.43 |
| Silica | mg/L | 2.5 | 2.0 | 2.2 | Specific Conductance @ 25 °C. | µmhos | 210 | 166 | 197 |
| Sulfate | mg/L | 21.0 | 17.9 | 19.2 | Temperature | °C | 23.7 | 2.7 | 15.1 |
| Chloride | mg/L | 10.0 | 8.5 | 9.3 | | | | | |

CITY OF ROYAL OAK

2023 Microbiological Contaminants – Monthly Monitoring in Distribution System

| Regulated Contaminant | MCLG | MCL | Highest Number Detected | Violation yes/no | Major Sources in Drinking Water |
|--------------------------------|------|--|-------------------------|------------------|--------------------------------------|
| Total Coliform Bacteria | 0 | Presence of Coliform bacteria > 5% of monthly samples | 0 | no | Naturally present in the environment |
| E. coli Bacteria | 0 | A routine sample and a repeat sample are total coliform positive, and one is also E.coli positive. | 0 | no | Sanitary defects |

2023 Disinfection By-Products - Stage 2 Disinfection By-Products Monitoring in the Distribution System

| Regulated Contaminant | Test Date | Unit | Health Goal MCLG | Allowed Level MCL | Highest Level LRAA | Range of Quarterly Results | Violation | Major Sources in Drinking Water |
|--|-----------|------|------------------|-------------------|--------------------|----------------------------|-----------|---|
| (TTHM) Total Trihalomethanes | 2023 | ppb | n/a | 80 | 32 | 15 - 54 | no | By-product of drinking water chlorination |
| (HAA5) Haloacetic Acids | 2023 | ppb | n/a | 60 | 19 | 11 - 21 | no | By-product of drinking water chlorination |

Lead and Copper Monitoring at the Customer's Tap in 2023

| Regulated Contaminant | Unit | Year Sampled | Health Goal MCLG | Action Level AL | 90 th Percentile Value* | Range of Individual Samples Results | Number of Samples Over AL | Major Sources in Drinking Water |
|-----------------------|------|--------------|------------------|-----------------|------------------------------------|-------------------------------------|---------------------------|--|
| Lead | ppb | 2023 | 0 | 15 | 12 | 0 - 30 | 2 | Lead services lines, corrosion of household plumbing including fittings and fixtures; Erosion of natural deposits. |
| Copper | ppm | 2023 | 1.3 | 1.3 | 0.1 | 0.0 - 0.2 | 0 | Corrosion of household plumbing systems; Erosion of natural deposits |

* The 90th percentile value means 90 percent of the homes tested have lead and copper levels below the given 90th percentile value. If the 90th percentile value is above the AL additional requirements must be met.

2022 Number of Water Service Connections by Service Line Material

| Number of Lead Service Lines | Number of Service Lines of Unknown Material | Total Number of Service Lines |
|------------------------------|---|-------------------------------|
| 1184 | 1294 | 23561 |

About Unregulated Contaminant Monitoring

Unregulated contaminants are those for which EPA has not established drinking water standards. Monitoring helps EPA to determine where these contaminants occur and whether it needs to regulate those contaminants.

In 2023 The city of Royal Oak participated in the Fifth Unregulated Contaminant Monitoring Rule. During this monitoring period 29 per – and polyfluoroalkyl substances and lithium were analyzed. For the four quarters of monitoring all 29 per – and polyfluoroalkyl substances and lithium sampling results reported as non-detect. All systems are required to report their data to the EPA. The analytical results from the UCMR are stored in the National Contaminant Occurrence Database for drinking water. For a summary of the UCMR results, please refer to the UCMR Occurrence Data webpage.

Important Health Information

Lead

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Royal Oak is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using the water for drinking or cooking. If you have a service that is lead, galvanized previously connected to lead, or unknown but likely to be lead, it is recommended that you run your water for at least 5 minutes to flush water from both your home plumbing and lead service line. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline 1-800-462-4791 or at <http://www.epa.gov/safewater/lead>.

Infants and children who drink water containing lead could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

People with Special Health Concerns

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791.

***IMPORTANT ADDENDUM* - 6.10.2024 – Re: Springwells Water Treatment Plant**

Great Lakes Water Authority (GLWA) is required to notify water users of any unresolved significant deficiencies identified by the Michigan Department of Environment, Great Lakes, and Energy, Drinking Water and Environment Health Division (EGLE). Below is the status of significant deficiencies in the GLWA water system identified by EGLE:

| Date Identified by EGLE | Description | Compliance Agreement Deadline | Status |
|-------------------------|---|-------------------------------|---|
| 05-25-2022 | Inoperable rapid mixing equipment at the Springwells 1930's water plant | 12-31-2023 | Completed in December 2023. |
| 05-25-2022 | Inoperable flocculation equipment at the 1958 Springwells water plant | 11-11-2027 | Phase I - Construction phase in progress and is scheduled to be completed in 2025 |

Questions:

- Local Distribution: City of Royal Oak (248) 246-3300
- Southeastern Oakland County Water Supply System – Water Authority offices: (248) 288-5150. Visit our web site at www.socwa.org
- Great Lakes Water Authority – www.glwater.org
- Michigan Department of Environment, Great Lakes, and Energy (EGLE) - (586) 753-3755 – www.michigan.gov/egle
- U.S. Environmental Protection Agency – Safe Drinking Water Hotline: (800) 426-4791.
- Water quality data for community water systems throughout the United States is available at <https://www.epa.gov/wqs-tech>



You're Invited!

“Behind the Drywall”^{tour of a} **Net Zero Energy** home

Whether you are renovating, building new or just interested in sustainability. Come learn strategies to make your home more energy efficient.

A unique opportunity to see what goes in to making a sustainable, resource conscious, **Net Zero Energy** home right here in Royal Oak.

Highlights Include:

- High Performance Wall Systems and Insulation
- Geothermal Heating and Cooling
- Air Source Heat Pump Heating and Cooling
- Preliminary HERS® Score of 16 (Home Energy Rating System)
- Projected Annual Utility Cost of \$1,168
- Anticipated LEED® Gold Certification

Where: 1805 Greenleaf, Royal Oak, MI 48067

When: July 1st, 2024 - 11am to 12pm and 6pm to 7pm

Contact: Woody Gontina (248) 420-6122
goodwoodliving@gmail.com



Please RSVP using the QR code
(not required)

