



CHECKLIST

10 HIGH-VALUE PRIORITIES

FOR WASTEWATER OPERATORS TO FOCUS ON IN THE NEW YEAR

Here's a practical 10-point checklist for wastewater operators to focus on in the new year. The following priorities are practical, actionable areas that help operators regain control of their systems and create long-term resilience. Along the way, many of these priorities highlight advantages modern MBR technology brings to day-to-day operations.

YOUR CHECKLIST:

1. RE-ESTABLISH A CLEAR PERFORMANCE BASELINE

- Review effluent quality trends

- Identify margins between actual performance and permit limits

- Look for recurring alarms or slow-building challenges

A clear baseline makes it easier to recognize drift early in the year. With MBR systems, the consistency of effluent quality and process behavior makes this benchmarking more reliable and easier to interpret.

2. CONFIRM REAL CAPACITY HEADROOM

- Compare average versus peak loading

- Consider seasonal variation and tenant behavior

- Identify where the system feels close to its limits

Modern MBR systems, especially modular platforms, allow utilities to plan capacity increases more precisely and build in phases rather than undergoing disruptive expansions.

3. REVIEW SLUDGE HANDLING STRATEGY

- Track hauling volumes and historical cost changes

- Evaluate handling efficiency

Look ahead to tightening disposal regulations

MBR systems produce less sludge and, typically, more concentrated solids. That helps ease the financial and operational weight that sludge management places on private utilities.

4. STRENGTHEN PROCESS STABILITY AND CONTROL

Identify control loops that require frequent manual adjustment

Reduce hidden dependencies on “tribal knowledge”

Ensure documentation matches reality

MBR environments provide stable biology and controlled membrane separation, which leads to calmer day-to-day operation and fewer unplanned surprises.

5. REFRESH PREVENTIVE MAINTENANCE DISCIPLINE

Update PM schedules

Confirm availability of critical spares

Strengthen maintenance record-keeping

MBR systems support disciplined maintenance culture. Standardized membrane assets, defined CIP routines, and predictable cycles help teams internalize and trust preventive strategies.

6. IMPROVE CYBER AND REMOTE ACCESS HYGIENE

Verify who has access and why

Remove unused credentials

Confirm firmware, PLCs, and SCADA environments are current

MBR installations are often paired with modern controls and telemetry platforms, which makes secure, disciplined access easier to design and sustain.

7. TAKE AN HONEST LOOK AT STAFFING AND TRAINING

Evaluate whether staffing matches operational expectations

Ensure key knowledge is documented across more than one person

Refresh operator familiarity with alarms, response steps, and membrane care

With automation, stable performance, and predictable maintenance behavior, well-designed MBR plants can help ease the burden on lean teams.

8. VALIDATE EMERGENCY AND RECOVERY READINESS

Verify backup power readiness

Confirm control logic and SCADA data backups

Revisit response procedures and access to spare parts

When thoughtfully designed, MBR systems return to stable operating conditions cleanly after disruptions, helping protect compliance and shorten recovery windows.

9. RE-EVALUATE CHEMICAL CONSUMPTION AND OPERATING COSTS

Review annual trends in chemicals like coagulants, polymers, and disinfectants

Identify what drives variability

Evaluate whether process decisions are helping stabilize spending

Strong membrane filtration reduces reliance on many tertiary steps, often helping utilities control chemical cost exposure.

10. ALIGN PLANT STRATEGY WITH THE NEXT FIVE YEARS, NOT JUST THE NEXT MONTH

Revisit development plans, growth expectations, and regulatory shifts

Identify vulnerabilities before they turn into emergencies

Build a plan for improvements that can be phased

MBR systems support this long-horizon thinking with reuse-ready effluent, strong nutrient performance, and scalable footprints that adapt as conditions change.



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