

Map to Quality: A Management Assessment Profile Benchmarks Performance

Michael Cherniak

During the last decade, water and wastewater professional associations have supported their member and subscriber benchmarking needs with projects and programs. Various indicators have been identified to measure utility performance.

Measurements have tended to key on customer satisfaction, operational efficiency, financial status, capital protection, and other relevant focal points. At higher levels of management, measures typically become broad and encompassing. At lower organizational levels, measures are generally more specific and narrowly focused. At all levels, progressive management teams desire to know how they are performing relative to others, and how they are improving over time. They value comparative analysis.

Utility facility managers often focus their efforts on individual areas of strength. A common template of measuring quality performance assures direction, systems control, teamwork, and a sense of accomplishment.

The Management Assessment Profile (MAP) was designed to focus on five elements of quality performance: customer service, leadership, technical management, vision, and community. Each element is further defined by five standards, creating a matrix of 25 achievement goals. Standards are subdivided into requirements, and specific measurements are assigned to each.

MAP Development Process

The Management Assessment Profile (or Program) was designed in concept by water and wastewater facility managers. The five core elements of performance and five sub-standards for each element were defined. During a series of three management meetings, all elements and sub-elements were discussed and more carefully crafted by groups of 15 to 30 project managers. A consensus process finalized the standards and performance measure for each element.

Continued on page 58

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Table 1:
Vision – Looking to the Future

Standard	Requirement	Measurement	Comments	Points Earned
Compliance (Future)	<ul style="list-style-type: none"> Regulatory 	<ol style="list-style-type: none"> Conduct an annual review of permits and rules in promulgation process. Document the review (to client and/or Area Manager). 		
Training	<ul style="list-style-type: none"> Employee Staff Development Management Staff Development 	<ol style="list-style-type: none"> Complete an annual training assessment profile and document training for staff and manager (presence of a training plan). 		
Facility Improvement	<ul style="list-style-type: none"> Written Plan of Improvement 	<ol style="list-style-type: none"> Prepare a summary of process/facility/equipment ideas to improve appearance or operations and maintenance of facility. Document by a memo or series of monthly summaries. 		
Response Plans	<ul style="list-style-type: none"> ERP/EAP RMP/PSM Disaster Preparedness SPCC 	<ol style="list-style-type: none"> Document the presence and use of the applicable plans as required by laws or the client. Maintain the plans up-to-date (annual review). Meet plan training requirements. Conduct and document reviews with local authorities as relevant and/or desirable. 		
Asset Management	<ul style="list-style-type: none"> Client Woodard & Curran 	<ol style="list-style-type: none"> Prepare a summary of facility, equipment and process needs with financial estimates for client. Document facility and equipment needs with financial estimates for your project manager. 		

Table 2:
Customer Service – Meeting the Expectations

Standard	Requirement	Measurement	Comments	Points Earned
Client Management	<ul style="list-style-type: none"> Meeting preparation Meeting frequency Client satisfaction 	<ol style="list-style-type: none"> Confirmation with the client that meetings are conducted in a professional manner and at a satisfactory frequency. Prepare monthly operating report summaries for the client (MORs). 		
Facility Management	<ul style="list-style-type: none"> Exterior and Interior Appearance 	<ol style="list-style-type: none"> Maintain clean, neat, orderly exterior appearance (i.e. landscaping, painting, etc.). Maintain clean, neat and orderly interior appearance (i.e. – walls, floors, labs, offices, etc.). 		
Organization	<ul style="list-style-type: none"> Filing System 	<ol style="list-style-type: none"> Demonstrate the presence and use of document management system – paper files, computer files. Maintain a technical reference resource library, i.e., bookshelves for manuals or other access means. 		
Protection of Client Investment	<ul style="list-style-type: none"> Corrective maintenance Preventative maintenance Predictive maintenance Inventory Control 	<ol style="list-style-type: none"> Document the use of one of the following programs: MP2, Maintain It, Avantis, Card System. Document the scheduling and completion of work. Document the cost of maintenance efforts. Document the use and costs of subcontracted services. Presence of Predictive Maintenance Report and use. Implement a Vendor Management System. Demonstrate the evidence of spare parts & supplies. Prepare and provide monthly documentation (MOR) of activities to client and project manager. 		
Contractual	<ul style="list-style-type: none"> Contract Term Sheet Project/Client Contact List Client Communication 	<ol style="list-style-type: none"> Develop and maintain a Contract Term Sheet and schedule of contract terms and activities. Develop and maintain a Project/Client Contact List Prepare and submit Monthly Operating Report s (MORs) to client. 		

Table 3:
Customer Service – Meeting the Expectations

Standard	Requirement	Measurement	Comments	Points Earned
Fiscal Control	<ul style="list-style-type: none"> Budget Management Using Forecast Tools and Financial Reports Change order management system Subcontract management system A/R Management 	<ol style="list-style-type: none"> Confirmed participation in budget process. Confirmed working relationship with finance group. Timely and accurate preparation of cost-to-complete form (quarterly). Use of the monthly financial reports to monitor status of expenditures. Confirmation of the development and implementation of a change order process with the customer. Confirmed participation in securing outstanding receivables. 		
Regulatory Communication	<ul style="list-style-type: none"> Knowledge of relevant regulatory oversight agencies 	<ol style="list-style-type: none"> Develop and maintain a list of relevant regulatory contacts - names/phone numbers. Document communications with agencies and keep such documentation accessible. Send a copy of all regulatory monitoring reports to your project and/or compliance manager. 		
Management Communication	<ul style="list-style-type: none"> Communication with staff Woodard & Curran communication 	<ol style="list-style-type: none"> Conduct daily or weekly staff meetings. Participate in company team meetings. 		
Staff Development	<ul style="list-style-type: none"> Prepare staff for advancement Additional certifications Training 	<ol style="list-style-type: none"> Develop and document a basic approach to assisting staff in a career plan. Perform and document annual staff reviews. Assure that staff have received training opportunities to maintain licensing CEU requirements and/or improve their or the team's performance. 		
Benchmarking	<ul style="list-style-type: none"> Setting and monitoring standards of performance. 	<ol style="list-style-type: none"> Develop select treatment system target performance ranges and action levels. Select a minimum of three cost standards to track for your facility. For example - \$ per MG treated; power costs per MG treated; \$ ton of sludge treated and disposed of; labor costs per MG treated, etc. 		

Continued from page 57

After the matrix was formed, technical services and marketing department representatives created a wall chart, using visual icons and text to easily and routinely

remind facility managers and staff of their expectations and goals. The 25 requirements and specific measurements are described in further detail in the five charts that accompany this article.

Assessment Process

MAP audits are the primary management tool to ensure that facilities operate in compliance and in a consistent, professional manner. Each audit may result in the formation of a list of recommended and required action items.

The audits are conducted using a consistent template. A score is assigned by the auditor. Each item is scored with zero, one, or two points. A two-point assignment suggests that the manager and staff have achieved the spirit, intent, and details of the standard and sub-standard. A one-point assignment suggests that the work is in significant progress, but not yet completed. A zero point assignment suggests that the facility has neglected the item. Scores must achieve or exceed a 90 percent score. *A zero point assignment results in a failed audit and a rescheduled visit.* In more specific detail:

- ◆ The facility ESH contact, facility manager, or designee, accompanies the auditor(s) on all site visits and must be generally available to answer all questions.
- ◆ The audit team has unrestricted access to all operations, records, and personnel.
- ◆ At any time, an auditor may advise the facility ESH contact or manage of condi-

tions and deficiencies as discovered. It becomes the responsibility of the facility ESH contact or manager to immediately undertake any and all measures that can be taken to cure such conditions and deficiencies.

- ◆ At the conclusion of activities, the audit team provides the facility manager with an oral briefing on conditions and deficiencies noted during the assessment to assist in the development of appropriate corrective measures, including action items.
- ◆ Generally, the action agenda should include a time line as to when the necessary actions or improvements can be completed.

Incentives and Peer Involvement

Facility management and staff members who pass the audit are entitled to financial bonuses and may attain further year-end recognition for individual achievements in the areas of compliance, safety, facility maintenance, and customer service. Each facility is also awarded a wall plaque. Project clients also receive a smaller wall plaque and letter describing the audit and its results.

A unique feature of the program is its

Table 4:
Customer Service – Meeting the Expectations

Standard	Requirement	Measurement	Comments	Points Earned
Operational Plans	<ul style="list-style-type: none"> • Site specific management plan • Process control strategies 	<ol style="list-style-type: none"> 1. Documented development of systems control strategies. 2. Confirmed use and understanding of plans by staff. 3. Presence and use of daily activity log books. 		
SOPs	<ul style="list-style-type: none"> • Safety procedures • Site specific operating procedures • Rounds sheet 	<ol style="list-style-type: none"> 1. Development and use of operating procedures/round sheets. 2. Documentation of training and verification of use. 		
Lab QA/QC	<ul style="list-style-type: none"> • Woodard & Curran QA/QC Manual 	<ol style="list-style-type: none"> 1. Presence, understanding, and use of manual. 2. Presence and use of chain-of-custody procedures for sampling/analyses activities. 		
Regulatory/Permit Standards	<ul style="list-style-type: none"> • Data collection and management 	<ol style="list-style-type: none"> 1. Development and use of a protocol to manage data for regulatory reporting (bench sheet management, lab service data, and DMR preparation). 		
Environmental Standards Compliance	<ul style="list-style-type: none"> • EPA • OSHA • Local and state statutes 	<ol style="list-style-type: none"> 1. Compliance with all local, state, and federal inspections. 2. Documented plan to address deficiencies. 3. Documented presence and use of site specific safety plans 		

peer-to-peer approach. Managers who pass the audit may become potential auditors. Peer auditors wish to assist their fellow managers in achieving success. Essentially, they are willing to participate in the action plans necessary to help their peers achieve a passing score.

For example, an auditor may find that

an Integrated Contingency Plan does not adequately present a preparation plan for storms or chemical releases, or that the maintenance program just isn't where it should be. The auditor may offer to assist in preparing the plan or revising the maintenance program. The entire concept's

Continued on page 60

Table 5:
Customer Service – Meeting the Expectations

Standard	Requirement	Measurement	Comments	Points Earned
Participation	<ul style="list-style-type: none"> Sponsorship Education 	<ol style="list-style-type: none"> Demonstrate participation in sponsorships (i.e. Chamber of Commerce, Little League, Pop Warner, community festivals, plant or project open house, or Demonstrate participation in education (i.e. – Plant/Project Tours, Teacher at local school “Teach-In Days”, Guest speaker at local College/university, etc.) Support local business. 		
Professional Associations	<ul style="list-style-type: none"> Membership Active participation 	<ol style="list-style-type: none"> Membership card in state or national professional associations Demonstrate participation in a technical association (i.e. Host a meeting at the plant or project site; sponsor or moderate a meeting, conference, or symposium; teach at seminars, short schools; or perform committee work, etc) 		
Work Safety	<ul style="list-style-type: none"> Team focus 	<ol style="list-style-type: none"> Documentation of monthly safety meetings. Designation of a Site Safety Officer. Participation in company safety incentive program. Timely, leading participation in accident investigation procedures. 		
Personal Integrity	<ul style="list-style-type: none"> Involvement Teamwork 	<ol style="list-style-type: none"> Confirmation by staff and client that management demonstrates integrity, honesty, and a good work ethic. 		
Coordination	<ul style="list-style-type: none"> Relationship with relevant local authorities and organizations 	<ol style="list-style-type: none"> Presence of a contact list. A demonstration of participation in meetings with such relevant groups as departments of public works, health agencies, law and fire agencies, and power companies. Preparation and presence of relevant memorandums of understanding, eg., mutual aid agreements. 		

Continued from page 59

foundation was to create a team of auditors, one by one, from the organizations’ entire management pool.

Results to Date

At this time, nine facilities have been audited. Five have achieved a passing status. Three managers have subsequently participated in the program as auditors, volunteering to assist their peers toward success.

It is recognized that there is a fair degree of subjectivity associated with matrix standard measurement. The “zero, one-point, two-point” system was designed to address that issue. To date, it has been described by managers as consistent, fair, and reasonable.

Initially, some pockets of resistance to the program were noted. Interestingly enough, the cream of the crop were the first to raise their hands and request the audit. Now that the process has been determined to be a carrot-oriented effort, more managers have volunteered to participate.

To date, this program has proven the adage that the “cream does rise to the top,” and it further appears that the top performers are intent on pulling others to the top with them – as it should be. 