

Licensing Operators and Succession Planning



Introduce Yourself

- Name
- Where are you from?
- Where do you work?
- What kind of system do you operate?
- A shareable fun fact or interest

The Certified Operator

- Working in the water and wastewater industry can be extremely rewarding as you will be providing a critical service to your community
- It just might be one of the most important positions in the world since no one can live without water

The Certified Operator

Wastewater and drinking water system operators are front-line environmental professionals who ensure the quality of Kentucky's water resources and protect the public's health

Certified Operator

A person who has on site ***responsibility and authority*** to conduct the procedures and practices necessary to ***ensure*** that the water supply system or a portion is operated ***in accordance with the laws and administrative regulations of the Commonwealth***

The Certified Operator

Only operators that are certified by the Kentucky Certification and Licensing Branch can be in responsible charge of a wastewater or drinking water system

Wastewater System classifications, Education and Experience Requirements

System Classifications WWT

Class I	WWT plant with a design capacity of $\leq 50,000$ GPD shall be under the primary responsibility of a certified operator holding an active Class I, II, III or IV WW Treatment certificate.
Class II	WWT plant with a design capacity of 50,001 to $\leq 2,000,000$ GPD shall be under the primary responsibility of a certified operator holding an active Class II, III or IV WW Treatment certificate.

System Classifications

Class III	WWT plant with a design capacity of 2,000,001 to $\leq 7,500,000$ GPD shall be under the primary responsibility of a certified operator holding an active Class III or IV WW Treatment certificate.
Class IV	WWT plant with a design capacity of $\geq 7,500,001$ GPD shall be under the primary responsibility of a certified operator holding an active Class IV WW Treatment certificate.

Education and Experience

Class I	High School Diploma or GED and One (1) year of acceptable operation of a wastewater treatment plant shall be required.
Class II	High School Diploma or GED and Two (2) years of acceptable operation of a wastewater treatment plant shall be required.

Education and Experience

Class III	High School Diploma or GED and Three (3) years of acceptable operation of a wastewater treatment system with one (1) year of that experience in a wastewater treatment plant with a design capacity greater than 50,000 gallons per day shall be required.

Education and Experience

Class IV	Baccalaureate degree in engineering, science or equivalent is required and at least five (5) years of acceptable operation of a wastewater treatment system shall be required. Three (3) years of the required experience shall be in a wastewater treatment plant with a design capacity greater than two (2) million gallons per day and at least two (2) years of primary responsibility in a wastewater treatment plant with a design capacity greater than two (2) million gallons per day shall be required.

System Classifications

Class I	Collection system that transports wastewater to a treatment plant with a design capacity of ≤50,000 GPD shall be under the primary responsibility of a certified operator holding an active Class I, II, III or IV collection certificate.
Class II	Collection system that transports wastewater to a treatment plant with a design capacity of 50,001 to ≤ 2,000,000 GPD shall be under the primary responsibility of a certified operator holding an active Class II, III or IV collection certificate.

System Classifications

Class III	Collection system that transports wastewater to a treatment plant with a design capacity of 2,000,001 to ≤ 7,500,000 GPD shall be under the primary responsibility of a certified operator holding an active Class III or IV collection certificate.
Class IV	Collection system that transports wastewater to a treatment plant with a design capacity of ≥ 7,500,001 GPD shall be under the primary responsibility of a certified operator holding an active Class IV collection certificate.

KISOP (formerlyKIMOP) Permit

- A Kentucky Inter-System Operational Permit is a permit to transfer wastewater from one collection system to another system for treatment
- This permit is appropriate for municipalities, other publicly owned collection systems, and private collection systems that transfer wastewater to a treatment plant owned by another party
- Kentucky Inter-System Operational Permit (KISOP) is a revision of the former Kentucky InterMunicipal Operational Permit. This permit is not a substitute for entities requiring coverage under a pretreatment permit

KISOP (formerlyKIMOP) Permit

Class I	Collection system with a population served of $\leq 1,500$ individuals shall be operated by a certified operator holding an active Class I, II, III or IV collection certificate.
Class II	Collection system with a population served of 1,501 to $\leq 15,000$ individuals shall be operated by a certified operator holding an active Class II, III or IV collection certificate.

KISOP (formerlyKIMOP) Permit

Class III	Collection system with a population served of 15,001 to $\leq 50,000$ individuals shall be operated by a certified operator holding an active Class III or IV collection certificate.
Class IV	Collection system with a population served of $\geq 50,001$ individuals shall be operated by a certified operator holding an active Class IV collection certificate.

KISOP (formerlyKIMOP) Permit

Class III	Collection system with a population served of 15,001 to $\leq 50,000$ individuals shall be operated by a certified operator holding an active Class III or IV collection certificate.
Class IV	Collection system with a population served of $\geq 50,001$ individuals shall be operated by a certified operator holding an active Class IV collection certificate.

Education and Experience

Class I	High School Diploma or GED and One (1) year of acceptable operation of a wastewater collection system shall be required.
Class II	High School Diploma or GED and Two (2) years of acceptable operation of a wastewater collection system shall be required.

Education and Experience

Class III	High School Diploma or GED and Three (3) years of acceptable operation of a wastewater collection system with one (1) year of that experience in a wastewater collection system that transports wastewater to a treatment plant with a design capacity greater than 50,000 gallons per day shall be required.

Education and Experience

Class IV	Baccalaureate degree in engineering, science or equivalent is required and at least five (5) years of acceptable operation of a wastewater collection system shall be required. Three (3) years of the required experience shall be in a wastewater collection system that transports wastewater to a treatment plant with a design capacity greater than two (2) million gallons per day and at least two (2) years of primary responsibility in a wastewater collection system that transports wastewater to a treatment plant with a design capacity greater than two (2) million gallons per day shall be required.

Drinking Water System
Classifications Education and
Experience Requirements

Facility Classifications

- Class I - AD <50,000 GPD*
- Class II - A 50,000 to < 500,000 GPD*
- Class III - A 500,000 to < 3,000,000 GPD*
- Class IV - A >3,000,000 GPD*

* design capacity

Class I-AD

- High School Diploma or GED and One (1) year of acceptable operation of a Subclass A public water system with any design capacity shall be required.

Class II-A

- High School Diploma or GED and Two (2) years of acceptable operation of a water treatment plant with Six (6) months in a Class IIA, IIIA or IVA water treatment plant shall be required.

Class III-A

- High School Diploma or GED and Three (3) years of acceptable operation of a water treatment plant with One (1) year of that experience in a Class IIA, IIIA or IVA water treatment plant shall be required.

Class IV-A

- Baccalaureate degree in engineering, science or equivalent is required and One (1) year of acceptable operation of a Class IIIA or IVA public water treatment plant shall be required.

Distribution System Classifications

CLASS ID <1,500 population served shall be under the primary responsibility of a certified operator holding an active Class I, II, III or IV Distribution certificate

CLASS IID 1500 to < 15,000 population served shall be under the primary responsibility of a certified operator holding an active Class II, III or IV Distribution certificate

Distribution System Classifications

CLASS IIID 15,000 to < 50,000 population served shall be under the primary responsibility of a certified operator holding an active Class III or IV Distribution certificate

CLASS IVD ≥ 50,000 population served shall be under the primary responsibility of a certified operator holding an active IV Distribution certificate

Regulatory Education and Experience

Class I	High School Diploma or GED <u>and</u> One (1) year of acceptable operation of a water distribution system shall be required.
Class II	High School Diploma or GED <u>and</u> Two (2) years of acceptable operation of a water distribution system shall be required with Six (6) months in a water distribution system serving a population ≥ 1,500.
Class III	High School Diploma or GED <u>and</u> Three (3) years of acceptable operation of a water distribution system with One (1) year of that experience in a water distribution system serving a population ≥ 1,500.
Class IV	Baccalaureate degree in engineering, science or equivalent is required <u>and</u> One (1) year of acceptable operation of a water distribution system serving a population ≥ 15,000.

Operator-In-Training (OIT)

- Designation expanded to all certification levels
- Same type of certification and one level greater than the current certification

Operator-In-Training (OIT)

- The applicant must submit a letter from a qualified mentor
1. Commitment to oversee applicant's work
 2. Commitment to mentor the applicant as long as applicant is under his direct responsible charge
 3. Verify mentor is not currently mentoring
 4. Confirm the mentor has a license greater than or equal to certification level of the OIT

Operator-In-Training (OIT)

- Mentors will not be held accountable for the actions of the OIT; unless the mentor instructed the OIT to violate the requirements in 11:020.

Renewal and Continuing Education

Wastewater and Collection License Renewal

- Wastewater operators must renew their license by June 30th of each odd-numbered year
- Applications are accepted starting January 1st of each odd year.

\$50.00 for the online process at www.dca.ky.gov

\$100.00 for the paper application process

Failure to renew by June 30th of an odd numbered year

- The operator's license expires and he/she shall not be in primary responsible charge of a facility

Wastewater and Collection License Renewal

➤ Operators have until the end of the calendar year to get their license in "active" status. The renewal and late fees total **\$300.00** online or **\$350.00** hard copy

Wastewater and Collections License Renewal

- If the license has not been renewed, the operator's license will be terminated at the end of this grace period
- **December 31st of odd year**
- The operator must then re-test to obtain a wastewater certification

Renewal Distribution and Water Treatment

- Renew between January 1 and June 30th of even numbered years
- Continuing education hours must have been earned in renewal period
- Certificates terminate if not renewed by December 31

Distribution and Water Treatment

Certification School & Exam	\$190
Renewal Fees (online)	\$ 50
Renewal Fees (hard copy)	\$100
Late Fees	\$250
Reciprocity	\$500

****ANNOUNCING**
On-Line Renewal**

Kentucky's operators are now able to renew their licenses on-line! As long as you have earned sufficient continuing education credit hours, you can renew your certification license in just minutes. This new process eliminates the hassle of completing renewal forms and mailing checks. All you need is an internet connection and a valid credit card. After completing the easy to use on-line process, your new wallet card will be mailed to you.

To complete your renewal on-line go to www.dca.ky.gov/certification and follow the link to "e-search"

Follow these easy steps to renew on-line

1. Enter your agency interest number, license number or last name in the box on the license e-search page. "Click" on the search button
2. When the License Search Results are listed, find your license and click on "Licensee Details" link in the first box of the table.
3. This will return your information.
4. Review your information and verify that your address and employment history are correct. If any information is not correct call DCA at (800) 926-8313.
5. In the last box of the table you will see either "Add to Shopping Cart" or "Can Not Pay". Click on the Add to Shopping Cart to renew the license. If Can Not Pay is shown you should click on that statement and a window will open that explains why you are not able to renew.
6. Your "shopping cart" will be displayed.
 - a. To add another license you want to renew is listed.
 - b. To add another license to be renewed, click "Continue Shopping"
7. When you are finished and all of the licenses you want to renew are listed complete the "Billing Information"
8. Complete "Shipping Information". If your shipping information is the same as your Billing Information, click the box that says "same as billing".
9. After entering your billing and shipping information continue to the bottom of the page and select the "Pay Now" button.

An e-mail confirmation will be sent that your wallet card will be mailed shortly after the approval. Operator certification staff will complete your wallet card and mail it to the address on file.

www.dca.ky.gov

Continuing Education Hours

- Continuing education credit must be earned after initial certification
- CEU credit is not given for individuals attending a certification school, if they don't currently hold an active certification in that program area



Continuing Education Hours

- CEU hours are valid for 2 years from the date earned

- CEU hours can be viewed online at www.dca.ky.gov

Important Links

- <http://dca.ky.gov>

- <http://dep.gateway.ky.gov/eSearch/SearchLicense.aspx>

- **HOTLINE AND WEBSITE FOR REGULATORY, TECHNICAL, OR OPERATIONAL CONCERNS**

- (502) 564-0323

- DCA.KY.GOV



Staffing Requirements

401 KAR 5:010

Operation of wastewater systems by certified operators

Section 3. Certified Operator Availability.

(1) The facility shall ensure that a certified operator with primary responsibility shall be able to be contacted by phone within thirty (30) minutes.

- (2) The facility shall ensure that a certified operator with primary responsibility shall be capable of being onsite:
 - (a) Within two (2) hours if the certified operator with primary responsibility is required to have a Class I or Limited certificate; or
 - (b) Within one (1) hour if the certified operator with primary responsibility is required to have a Class II, III, or IV certificate.

401 KAR 8:030

Water treatment plant and water distribution system classification and staffing

Staffing requirements

- (a) Water distribution systems

A water distribution system shall be operated by or under the supervision of a distribution system operator certified in a class equal to or higher than the class of the distribution system

**401 KAR 8:030
Water treatment plant and water distribution
system classification and staffing**

Staffing requirements

(b) Combination water treatment plants and water distribution systems.

1. A combination water treatment plant or water distribution system shall be classified as Class IA-D, Class IB-D, IIB-D.
2. A system classified as a combination system in subparagraph 1. of this paragraph shall be operated by or under the supervision of an operator who holds a valid combination or separate water treatment and distribution system operator certificate of the appropriate class or higher and who shall be in direct responsible charge of the system.
3. A certified operator of a Class IA-D combination system shall be at the water treatment plant if water is being treated, unless the operator is performing other system-related duties. (c) Water treatment plants.

**401 KAR 8:030
Water treatment plant and water distribution
system classification and staffing**

Staffing requirements

Class IIA.

a. Except as provided in subparagraph b. of this paragraph, if water is being treated, a Class IIA water treatment plant shall be operated by a certified water treatment plant or performing system-related duties operator who holds a valid certificate in a class equal to or higher than Class IIA who shall be in direct responsible charge of the plant and shall be present at the water treatment plant. b. A Class IIA water treatment plant that treats water during more than one (1) shift per day may employ a Class IA-D certified operator for one (1) shift per day, other than the shift worked by the Class IIA operator in direct responsible charge, so long as the Class IIA operator in direct responsible charge shall be able to respond on site within thirty (30) minutes

**401 KAR 8:030
Water treatment plant and water distribution
system classification and staffing**

Staffing requirements

Class IIIA.

Except as provided in subparagraph b. of this paragraph, if water is being treated, a Class IIIA water treatment plant or performing system-related duties shall be operated by a certified water treatment plant operator who holds a valid certificate in a class equal to or higher 8:030 2 than Class IIIA who shall be in direct responsible charge of the plant and shall be present at the water treatment plant

**401 KAR 8:030
Water treatment plant and water distribution
system classification and staffing**

Staffing requirements

A Class IIIA water treatment plant that treats water during more than one (1) shift per day may employ a Class IIA operator for one (1) shift per day, other than the shift worked by the Class IIIA operator in direct responsible charge, so long as the Class IIIA operator in direct responsible charge shall be able to respond on site within thirty (30) minutes

**401 KAR 8:030
Water treatment plant and water distribution
system classification and staffing**

Staffing requirements

Class IIIB. a Class IIIB water treatment plant shall be operated by or under the supervision of a certified water treatment plant operator who holds a valid certificate in a class equal to or higher than Class IIIB and who shall be in direct responsible charge of the system

**401 KAR 8:030
Water treatment plant and water distribution
system classification and staffing**

Staffing requirements

Class IVA
a. Except as provided in subparagraph b, of this paragraph, if water is being treated, a Class IVA water treatment plant or performing system-related duties shall be operated by a certified water treatment plant operator who holds a valid Class IVA certificate who shall be in direct responsible charge of the plant and who shall be present at the water treatment plant

**401 KAR 8:030
Water treatment plant and water distribution
system classification and staffing**

Staffing requirements

Class IVA

b. A Class IVA water treatment plant that treats water during more than one (1) shift per day may employ a Class IIIA operator for one (1) shift per day, other than the shift worked by the Class IVA operator in direct responsible charge, so long as the Class IVA operator in direct responsible charge shall be able to respond on site within thirty (30) minutes

**401 KAR 8:030
Water treatment plant and water distribution
system classification and staffing**

Staffing requirements

Class IVB

A Class IVB water treatment plant shall be operated by or under the supervision of a certified water treatment plant operator who holds a valid certificate in a class equal to or higher than Class IVB who is in direct responsible charge of the system

**401 KAR 8:030
Water treatment plant and water distribution
system classification and staffing**

A public water system may propose an alternate staffing plan to the staffing requirement established in this paragraph

- a. The proposal shall be submitted to the cabinet and shall thoroughly explain the alternate proposal
- b. The proposal shall demonstrate: (i) A necessity for the water system to vary from the requirement in this paragraph; and (ii) An equal level of protection of human health and the environment
- c. The cabinet shall not approve an alternate proposal that does not propose that a duly certified operator in direct responsible charge operate a water treatment plant, in accordance with KRS 223.210.

**401 KAR 8:030
Water treatment plant and water distribution
system classification and staffing**

Staffing Requirements

Bottled Water Systems

A bottled water treatment plant shall be operated by or under the supervision of a certified water treatment plant operator who holds a valid bottled water certification and who shall be in direct responsible charge of the system



**Standards of Professional
Conduct**



**401 KAR 11:020 Standards
of professional conduct**

A certified operator may be subject to **disciplinary action** if the Cabinet, in consultation with the board, determines that the operator practiced any of the following:

401 KAR 11:020 Standards of professional conduct

- **Fraud or deception** in obtaining certification
- **Fraud or deception** when collecting samples and/or filing cabinet mandated reports (i.e. DMRs)
- **Failure to use reasonable care or judgment** in the performance of duties

401 KAR 11:020 Standards of professional conduct

- **Failure to apply knowledge** in the performance of duties (i.e. - if the operator is incompetent, unable, or unwilling to properly perform duties)

**401 KAR 11:050
Disciplinary Action**

- Probation of the operator's certification for a specified period of time, not to exceed one (1) year
- Suspension of the operator's certification for a specified period of time, not to exceed four (4) years, **CERTIFICATION IS CONSIDERED VOID**

Operator Succession Planning

Ageing Operator Population >60% aged +50 years



Succession Planning

The Emerging Concern



- **Loss of institutional knowledge**
- **Heavy reliance on on-the-job training (OJT) rather than on formal training and development**
- Weak or non-existent Leadership Development Programs
- Complications in bargaining agreements
- Issues of employee retention, such as compensation and lack of advancement

Complexity, Cost, Career transitions

Capture Knowledge Now

Strategies and processes designed to identify, capture, structure, value, leverage, and share an organization's intellectual assets to enhance its performance and competitiveness.

It is based on two critical activities: (1) capture and documentation of individual explicit and tacit knowledge, and (2) its dissemination within the organization.



Knowledge Loss is A Key Workforce Challenge

- Retaining critical knowledge is key
- Declining number of certified operators
- Lack of information sharing and documentation



Knowledge Transfer

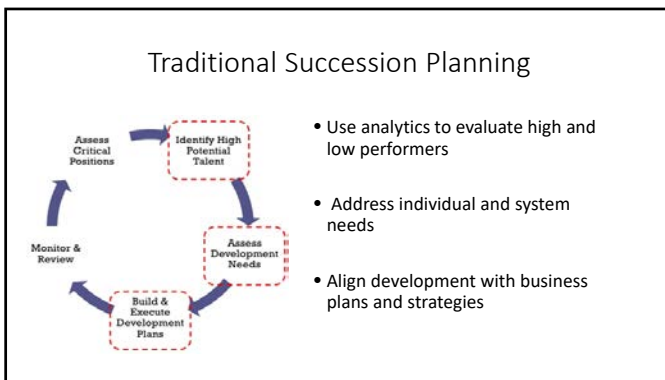
Processes and strategies that allow an organization to:

- Document key data and policies for critical work processes
- Exchange key process data and information from one individual or group to another
- Define how vital and important information will be retained within the organization despite attrition

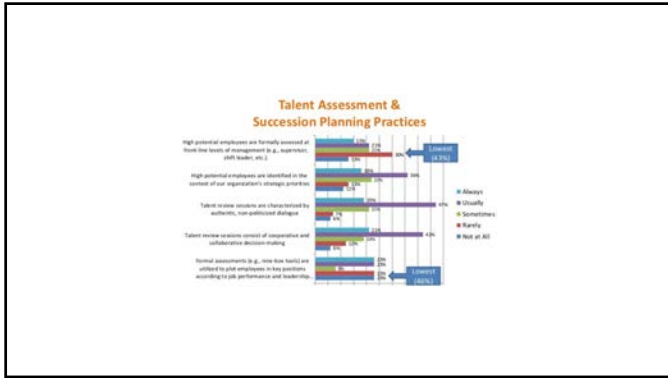
Benefits of Knowledge Transfer

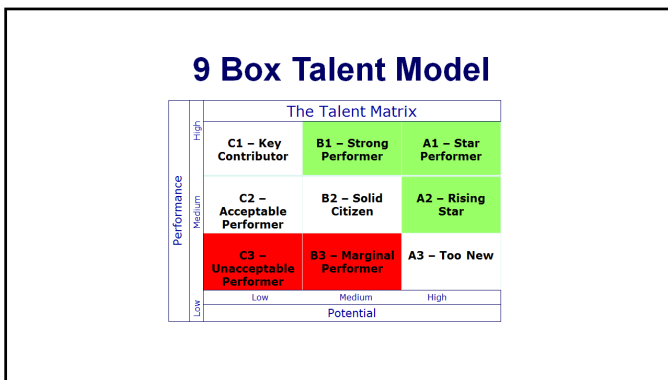
- Employer – Ensure a sufficient supply of talent for key roles and tasks.
- Employee – Provide clear opportunity to grow, learn, evolve, advance.
- Customer –
 1. Results
 2. Employees who are reliable, knowledgeable, and meet their expectations.

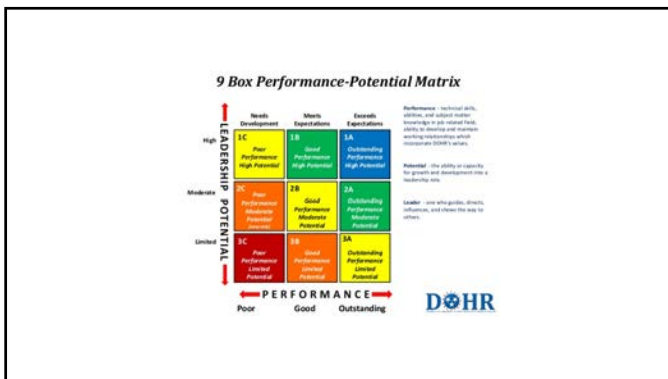
SUCCESSION RISKS	EXAMPLES FOR COUNTER ACTIONS
Vacancy Risk The risk of key positions being vacant over a longer period of time	Implementation of a name-to-box succession planning (including defined emergency successors and corporate-wide talent pools)
Readiness Risk The risk of unprepared successors	Development programs for potential successors
Transition Risk The risk of failure of external successor	Higher success rate through more and better fitting internal candidates
Portfolio Risk The risk of poor deployment of talent against business goals	Deriving the development and succession decisions from business goals

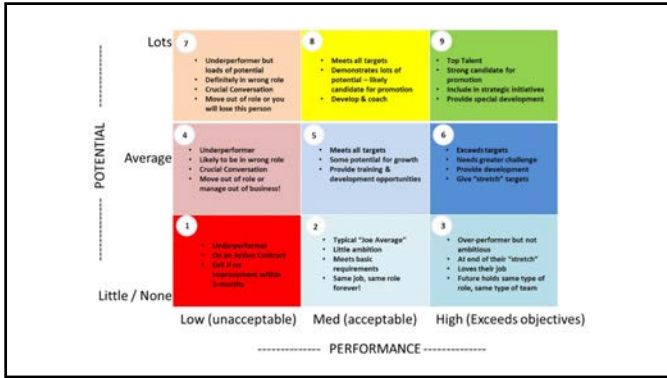


4 Stage Succession Planning Process			
Now ? (current situation analysis)	How ?	Where ? (future)	
1. Identify	2. Evaluate	3. Plan	
1. Identify & acknowledge key issues: Need to manage succession & leadership transition to ensure business & family continuity 2. Appoint project team to manage succession process 3. Identify & gather information (business & family): <ul style="list-style-type: none"> - Background facts - Profiles of key personalities (especially current leaders) - Core Values & Philosophy - Plans, goals, key objectives - Needs & interests: issues & challenges - Chosen/potential candidates - Resources available (people, time and cost) 	1. Assess information from (1) for business & family: <ul style="list-style-type: none"> - Plans & goals - Core Values & Philosophy 2. Strengths & weaknesses of: <ul style="list-style-type: none"> - Business & family - Succession candidates - Current leaders - Support resources - Relationships generally 3. Potential impact on: <ul style="list-style-type: none"> - Business continuity - Family dynamics - Staff - Customers, suppliers, financiers - Other stakeholders 	1. Develop Succession Plan for candidates & current leaders: <ul style="list-style-type: none"> - Business & family objectives - Succession criteria - Candidate criteria - Selection program & process - Development program for candidates - Progress monitoring and measurement - Decision points - Contingency plans – other options, best and worst alternatives - Communication program for all stakeholders 2. Develop Transition Program for current leaders (timing, resources, alternate activities, mentoring etc)	1. Implement the Plan: <ul style="list-style-type: none"> - Select candidate(s) - Communicate choice - Train, coach and mentor through all facets of business - Monitor and assess candidate performance - Adjust training, timing, candidates or expectations (if required) - Final decision - accept or reject candidate - Complete process – handover ceremony 2. Support & mentor leaders through transitioning process, both inwards and outwards <ul style="list-style-type: none"> - Monitor & assess transition - Respond & adjust as necessary

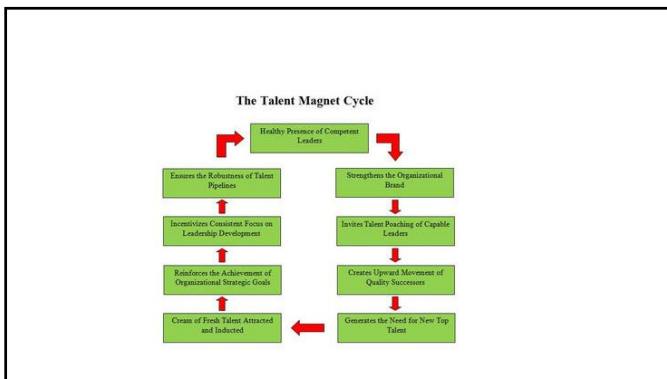
















Succession Planning

- The process of developing a systematic approach to building replacement workers to ensure continuity, by identifying potential successors in *critical* work processes

Succession Management

- The integrated approach to workforce recruitment, development, and retention to ensure that the organization has candidates whose present and future potential contribute to their individual success and the success of the organization

Developing the Plan

- **Basic Steps**
 - Institutionalize the process and capture stakeholder support
 - Conduct assessments of organizational needs
 - Develop the succession planning model
 - Implement succession planning strategies
 - Continuously measure, evaluate, and adapt

Step 2A – “As Is” Assessment

- Collect and analyze organization and demographic data
 - Retirements?
 - New leaders being developed?
 - Are you identifying new leaders?
 - What is average age and tenure of current employees?
 - What are attrition and vacancy rates?
- Identify and prioritize key work processes/positions
 - Which are most critical?
 - Which have the least amount of resource depth?
 - Which processes are documented?
 - Are future leaders prepared?
- Identify condition and availability of resources and systems
 - What items are needed to do work? Maps, policies/procedures, training guides?
 - Are they accessible and up to date?
 - What technology systems are currently in use?

Step 2B – “To Be” Assessment

- Analyze future requirements for services
 - Future demand
 - Customer expectations
 - Regulations
- What are the goals of the Strategic Plan
 - Demand placed by SP
 - How will SP change workforce/leadership requirements
- What are upcoming changes in the industry?
- What demands will technology place on organization?

Step 2C – Gap Analysis

- How does “as is” organization fall short of “to be”?

Step 3 - Develop the Succession Planning Model

- Determine which employees or levels of employees will be involved in program.
- Build leadership pipeline.
 - Identify internal talent with critical competencies (KSAs).
 - Analyze external sources of talent.
- Identify training and development strategies.
 - Formal professional development.
 - Coaching and mentoring.
 - Use cross training/multi-skilling.
 - Job shadowing.
 - Identify career paths.
- Develop retention strategies.
- Create knowledge management and transfer strategies.

Succession planning model		
Succession Planning Element	Organizational Planning Objective	Succession Planning Task
Build a Leadership Pipeline	1. Ensure the sustainability of organizational leadership	1. Leadership assessment 2. Identification gap 3. Leadership talent pool development 4. Leadership mentoring
Develop Critical Function Successors	2. Mitigate impact of attrition and ensure mobility into the utility's critical functions	1. Present retiree counseling 2. Mentoring 3. Apprenticeship/rotational 4. Job function performance aids
Staff Development and Training	3. Develop layers of depth to perform operational functions	1. Staff development plans 2. Cross-training and work rotation 3. Job function certification
Develop Retention Strategies	4. Increase ability to retain key staff	1. License and credit compensation and classification system 2. Career path planning 3. Cross-training and work rotation
Knowledge Management and Transfer	5. Ensure the accessibility of critical organizational knowledge despite staff attrition	1. Update and maintain key operational knowledge resources 2. Document and codify key processes and functions 3. Expert resources 4. Job function performance aids 5. Knowledge maps and inventories

28 The Changing Workforce...Seizing the Opportunity

Step 4 - Implement Succession Planning Model

- Determine resource needs for implementation.
- Identify barriers to implementation.
- Update or develop job descriptions.
- Prepare organization for change.
 - Establish communication plan.
 - Connect with stakeholders and get their buy in.
 - Identify and establish peer and leadership champions of change.
- If needed, implement strategies on pilot basis.
- Link succession strategies with HR.
 - Recognition
 - Workforce planning
 - Assessment strategies
 - Recruitment strategies
- Train staff as necessary.

Step 5 - Continuous Measurement, Evaluation, and Adaptation

- Define measures of program success
- Determine how frequently the program will be evaluated.
- Design the reporting process.
- Track progress, communicate and celebrate program success.
- Get stakeholder feedback on strategy success.
- Adjust or adapt programs based on evaluative results.
- Ensure top management stays engaged and provides support and attention to program.
- Make 3 to 5 year succession plans part of organization's strategic planning process.

IMPLEMENTATION

- Develop pilot program in one department.
- Track and measure how it's working:
 - Turnover
 - Employee survey results
 - Participant satisfaction
 - # Individuals promoted vs. outside hires
 - # "ready now" candidates
 - Diversity of talent pools
 - Size of talent pools
- Communicating Program
 - Share with everyone how it's going.
 - Use multiple methods

- Costs/Benefits
 - Costs – highly variable and hard to quantify
 - Consultant, in-house time, lost production.
 - Employer Benefits
 - Stabilize performance
 - Ensure continuity of leadership
 - Develops pool of skilled workers
 - Minimizes disruption during change
 - Enhances knowledge transfer
 - Makes "employer of choice" – gets you the better workers
 - Employee Loyalty/Commitment
 - Opportunity for skills development/training
 - Increased organizational resiliency/capacity
 - Employee Benefits
 - Improves communication and morale
 - Improved effectiveness
 - Improve working relationships
 - Personal/Professional growth
 - Customer Benefits
 - Improved staff knowledge
 - More efficient service
 - Increased staff responsiveness/pride
 - Better run organization

- Common Pitfalls
 - Keeping it a secret
 - Underestimating talent within
 - Narrow minded thinking – too old/young, rough, different
 - Focusing exclusively on hard skills
 - Not offering training/development opportunities
 - Expecting employees to self-identify – help them see what they can be.
 - Not holding managers accountable for succession planning.
 - Considering only upward succession. Lateral?
 - One size fits all program.
 - Producing too many candidates for too few spots.

Program Participation

- Recruit and develop bright career minded individuals who appreciate recognition.
- Voluntary opt-in.
- Provides self-directed careers.

Leadership Competencies

- Defines attributes desired.
- What an employee must achieve to show proficiency at each level.
- Effectiveness, communication, ethics, knowledge, developing people, flexibility/adaptability, strategic initiative, effective decision making, customer orientation, achievement orientation, team orientation.

Knowledge Transfer and Retention Strategies

- Document processes and records.
- Hire new person before old one leaves.
- Rehire retirees part time.
- Make videos of people doing work.
- SOPs, standardized record keeping formats, archiving and data retrieval systems.
- Cross training existing staff.

What's a small organization to do?

- Create organizational chart.
- List age, years of service.
- When do you expect people to leave?
- Where do you expect to get replacements?
- If they're abundant and readily available, ok.
- If not, where will they come from?
- Need to develop in advance?
 - Recruit for exam?
 - Trade schools, military, minorities?

Mission Critical

- Identify "Mission Critical" **positions/tasks**.
 - If this skill set, expertise, license, person is suddenly unavailable, we can't function or something really bad can happen.

- How many positions/people can perform this task?
 - If only one, "Houston, you have a problem."
 - You need to plan for back up or when they leave.
- Try to figure out when they *plan* to leave.
- You need to develop a plan for that event.
- In the meantime, you still need to provide back up for while they're there.

Some Possibilities

- Cross training
- Multi-skilling
- Retiree/Part timer
- Outside sources of talent
- Contractors

Contracting Possibilities?

- Electrical
- I&C
- Payroll
- Retirees
 - Redundancy, training, transition, sick/vacation.

Institutional Knowledge

- SOPs:
 - Have employees write down how to perform MC tasks from the perspective of someone who knows nothing and needs to be able to do it.
- Have them create a video that demonstrates and it.

Developing the Plan

- **Basic Steps**
 - Institutionalize the process and capture stakeholder support
 - Conduct assessments of organizational needs
 - Develop the succession planning model
 - Implement succession planning strategies
 - Continuously measure, evaluate, and adapt

Plan

- Keep operators.
- Cross train/certify maint/lab staff to transfer as operators retire. Eliminate their old position.
- Now:
 - 6 Operators
 - 2 Maintenance
 - No lab techs
- SOPs

Act

- Created draft plan
- Shared with employees and union
- Got their feedback
- Modified plan
- Conveyed that plan was dynamic
- Created schedule for implementation
- Created schedule for review and revision

Now Looking at Management

- All 3 managers plus admin gone in 5 years.
- 140 years of experience.
- Identified all mission critical tasks and licenses.
- Scary list.
 - Compliance sampling and reporting.
 - Industrial pretreatment.
 - Decision making.
 - Scheduling
 - Payroll
 - Process control
 - Data management
 - Computers
 - Project management, bid specs
 - 4A Certification

- Developed Progression/Succession Program.
 - Staff can volunteer to learn mission critical tasks.
 - Once proficiency developed, recognition and pay bump.
 - Provides:
 - Back up/Redundancy
 - Pipeline
 - Continuous learning environment
 - Excitement/Competition
 - Organizational capacity/resiliency.

Succession Planning

It may be a tougher process to gain the funds and long term support to implement a succession plan

1. List current personnel & their experience
2. Note whether the current personnel (quantity & training level) is sufficient (and whether it will be in the future)
3. Create specific plans to pass down information through written records and training

Succession Planning

- Decent salary and benefits in order to attract an operator in a highly competitive job market
- Replacing the full-time qualified operator with a part-time or unqualified one is an irresponsible action
- Most municipal leaders don't realize that Water and Wastewater operation is an advanced profession that requires necessary skill, thorough training, and on-the-job experience

Succession Planning

- A solid succession plan requires that a community hire and train someone at least a year or two (or more) in advance
- Send operators to training courses and pay them well enough to get the necessary skills, knowledge, and abilities for the job
- Having a certified operator is important in making sure water is safe, it's the law

Succession Planning

- Without a succession plan in place, it is difficult to move existing personnel into the open leadership slots
- Immediately identifying opportunities to collect and standardize information and align training for all staff
- Recruiting for the water facility can be a challenge in that many professionals don't want to jump from one water plant to another

Succession Planning

- It is important to develop our staff into leaders
- Take information and system knowledge out of employees' heads and put it on paper
- Groom front-line and mid-level operators for upper management

- <http://www.wef.org/resources/online-education/webcasts/webcasts-test-page/gray-hair-operator-syndrome--training-newbies-in-a-wave-of-retirements/>

- **Step 1: Evaluate staffing needs & technology options**
The bottom line is that utilities need to be more efficient, even while there are more demands for their services than ever before. This means less focus on manual processes and more energy on optimizing staff and resources. It is important to understand your state's regulations on staffing, but there are ways you can work with your regulators to reduce your staffing requirements. Technology such as GIS and SCADA can help capture knowledge, improve data management and engage your workforce.

• Step 2: Develop an internship & mentoring program

College and high school graduate unemployment is still high and capitalizing on technical students can really pay off. Developing an internship program can help attract and engage young talent that might not otherwise be aware of opportunities at your utility. Interns tend to make engaged employees and should be seen as long term investments in your organization. On average, 90% of interns that get hired into permanent positions are retained after one year. In order to keep young professional happy and engaged at work, a formal mentoring program should also be put in place.

In order to attract new talent, a utility in Portland, Connecticut worked with their local high school to establish a year-long technical program for seniors that took students through all the basics of becoming a wastewater plant operator. At the end of the year, the students were invited to take the operator certification. After three years, the Town has graduated 14 certified operators, a majority of which still work in water treatment today.

• Step 3: Target related fields as a resources

There are lot of skilled workers that can be an asset to your utility, but they may have no connection to the water and wastewater industry—yet. By targeting and recruiting people from closely related industries you can find many more technically-advanced employees. Electrician, mechanics and military veterans are great candidates as these groups of people tend to have the right technical skills to become certified staff.

• Step 4: Develop training programs to enhance staff skills

Getting employees in the door is one obstacle, but you also need a plan to retain younger employees and help them build careers at your plant. Although it may require additional investment, it is essential to encourage your staff to take certification exams and trainings and make sure you keep your employees informed about changes in industry standard, treatment technologies and regulatory changes.

• **Step 5: Offer competitive wages**

One of the reasons water and wastewater utilities are not attracting enough qualified employees is because their salaries are not keeping up with other utilities. In order to attract skilled workers, you need to make sure your wages are competitive with other utilities in your area. Look at salary benchmarking information and make sure you aren't the lowest paying utility in your geography.

Succession planning may seem like just one more thing you have to add to the already long list, but at the end of the day, it is an investment in your employees by creating an environment where young talent can grow. While it is not necessarily a part of succession planning, outsourcing can present a solution to staffing issues by easing short-term and long-term pressures. Outsourcing can take many different shapes and sizes, from contracting out a superintendent or another high level position to outsourcing your entire operation. If you have any questions of succession planning or outsourcing at your utility
