The Aqueduct from Segovia, Spain, was designed, built, and operated by the Roman Empire nearly 2000 years ago to transport water from more than 10 miles away. It just recently stopped operations.
Presentation Outline –

- **Keys to Your Development**
  - Understanding Industry Trends
  - Opportunities Created by Trends

- **How to Develop Your Career Path**
  - Your Strategic Vision/Brand
  - Short-Term Career Planning
  - Long-Term Career Planning

- **Summary**
Your Career: Manage It!

2,080* Weeks Left!!!

*25 years old to 65 years old

Whacha gonna do?
Keys to Your Development

Understanding Industry Trends
Water Industry\(^{(1)}\) Trends that Affect Your Career Development

- Climate Change
- Daw of “Replacement Era”
- More Customer Focus/Green
- Work Environment Changes
- Total Quality Management
- Wave of Regulations
- Utility Reorganizations
- Key Decision Makers Shift
- Rising Water Rates
- Total Water Resource Management

How Do I Prepare?

\(^{(1)}\) Based on various studies performed by AWWA and AWWARF
W/WW Market Size - Opportunity for Growth


<table>
<thead>
<tr>
<th>Item/Yr</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>5-Year Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Water Treatment</td>
<td>$3.5</td>
<td>$5.3</td>
<td>$5.5</td>
<td>$6.2</td>
<td>$6.3</td>
<td>$26.8</td>
</tr>
<tr>
<td>• Water System</td>
<td>$8.1</td>
<td>$9.2</td>
<td>$10.6</td>
<td>$11.9</td>
<td>$12.4</td>
<td>$52.2</td>
</tr>
<tr>
<td>• Wastewater Treatment</td>
<td>$6.6</td>
<td>$6.9</td>
<td>$7.2</td>
<td>$7.7</td>
<td>$8.2</td>
<td>$36.6</td>
</tr>
<tr>
<td>• Wastewater System</td>
<td>$9.3</td>
<td>$9.8</td>
<td>$11.2</td>
<td>$13.2</td>
<td>$14.6</td>
<td>$58.1</td>
</tr>
<tr>
<td>Total Expenditures $ Billion</td>
<td>$27.5</td>
<td>$31.2</td>
<td>$34.5</td>
<td>$39.0</td>
<td>$41.5</td>
<td>$173.7</td>
</tr>
</tbody>
</table>
Back to the Future
Main Replacement Costs

Projected Main Replacement Expenditure Due to Wear-Out for 20 Utilities

$ Million per annum
Infrastructure Spending

• Estimates state the W/WW community needs to increase investment by about $500-$600 billion over current levels over the next 20 years *(EPA, AWWA etc…)*

• Water/Wastewater infrastructure is ‘invisible,’ so politically unpopular

• Industry placing emphasis on sustainable asset management, communicating the value of service
10 Trends that Will Shape Future

1. Dawn of “replacement era”
2. Wave of new regulations
3. Utility reorganizations
4. More customer focus / awareness / going green
5. Key decision markers shift
6. Greater efficiency / TQM
7. Total water resource mgmt / water reuse
8. Work environment change
9. Climate change
10. Rising water / wastewater rates
State of the Industry (SOTI) Report

- An annual AWWA “report” highlighting AWWA / industry perspectives supported by primary and secondary research
  - “Where is the profession going?”
  - “What are we going to have to pay attention to in the future?”
Source Water and Business factors converged at the highest level of concern, followed closely by Infrastructure. Workforce concerns dropped sharply.
Business Factors were the most inadequately addressed area. Disappointment that water infrastructure did not receive more stimulus funding.
Key Findings  AWWA State of Industry

1. INFRASTRUCTURE

2. BUSINESS FACTORS

3. SOURCE WATER

4. SECURITY

5. REGULATIONS
Keys to Your Development
Opportunities Created By Trends
## W / WW Industry Trend Analysis

<table>
<thead>
<tr>
<th>W / WW Trends</th>
<th>Implication</th>
<th>Industry Need</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Dawn of Replacement Era</td>
<td>▪ Need is Great</td>
<td>▪ Alternative Delivery W/ Private Financing</td>
</tr>
<tr>
<td>▪ Key Decision Maker Shift</td>
<td>▪ May Not Get Full Cost recovery</td>
<td>▪ Total Life Cycle Costs w/ Custom Design</td>
</tr>
<tr>
<td>▪ Wave of New Regulations</td>
<td>▪ Have To Find Value for Dollar</td>
<td>▪ Consider use of new Technologies</td>
</tr>
<tr>
<td>▪ Limited Access To Capital/Revenues</td>
<td></td>
<td>▪ Long Range CIP Master Planning</td>
</tr>
</tbody>
</table>
# W / WW Industry Trend Analysis

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</thead>
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<tr>
<td>■ Dawn of Replacement Era</td>
<td>■ Core Distribution and Collection System Failure</td>
<td>■ Rehabilitation and Upgrade Planning and Design</td>
</tr>
<tr>
<td>■ Key Demographic Shifts</td>
<td>■ Critical To Reach Population Served</td>
<td>■ Total Life Cycle Costs w/ Rehab Designs</td>
</tr>
<tr>
<td>■ Technological Advances</td>
<td>■ Have To Find Value for Dollar</td>
<td>■ Consider use of new Technologies</td>
</tr>
<tr>
<td></td>
<td></td>
<td>■ System Needs Greater than Plant Needs</td>
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</table>
## W / WW Industry Trend Analysis

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<tbody>
<tr>
<td>More Customer Focus/Awareness/Green</td>
<td>Public Outreach</td>
<td>Public Relations/Communications</td>
</tr>
<tr>
<td>Key Decision Maker Shift</td>
<td>Project LEED/Positioning</td>
<td>Creative Project Positioning</td>
</tr>
<tr>
<td>Rising Water/Wastewater Rates</td>
<td>Project Alignment w/ Community Goals</td>
<td>Business Planning/Rate Impact Eval.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Low Cost Green/Sustainable Technologies</td>
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## W / WW Industry Trend Analysis

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<th>Industry Need</th>
</tr>
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<tr>
<td>Work Environment Changes</td>
<td>Not Enough Staff</td>
<td>Consultant as Institutional Knowledge</td>
</tr>
<tr>
<td>Dawn of “Replacement Era”</td>
<td>Need is Great</td>
<td>Program Mgmt./Project Mgmt. for CIP</td>
</tr>
<tr>
<td>Greater Efficiency/TQM</td>
<td>Have To Find Value for Dollar</td>
<td>More “Standard Specifications” &amp; Guidelines</td>
</tr>
</tbody>
</table>
How to Develop Your Career Path

Your Strategic Vision/Brand
Personal Vision/Mission Statements

- **Personal/Career Vision Statement** - is about crafting a mental image of the future with you at your **absolute peak** in your career.

- **Personal/Career Mission Statement** - is about focusing on who you are now and provides an opportunity to review what’s important to you now. It can also enable you to chart a new course to reach your vision. Not written once may change over time, but does provide direction.
A Career Vision Statement

Provide Clear and Inspiring Direction for the Future:
• Begin With The End In Mind – “What do you want to be when you grow up?”

A Statement About What You Want to Achieve in your Career:
• Major Accomplishments You Hope to Obtain?
• Level of Position You Hope to Rise To?
• The Lasting Impacts and Contributions You Hope to Make
Example Career Vision Statement

Sample #1:

• “I will become a well-known and respected leader in the Water and Wastewater Industry, contributing to the ways water and wastewater is managed and treated for the betterment of the quality of life for those communities I have the honor to serve.

Sample #2:

• To become the best Professional Engineer, implementing world class projects, and helping improve the lives of people around the country -- and around the world.

I will achieve this goal by completing multiple studies and designs while learning from the world's leading experts on water and wastewater issues, pushing my limits as far as they will go and extending current thinking into new paradigms in partnership with national and international organizations.
Personal Mission Statement

YOUR PERSONAL MISSION STATEMENT

Thoughts to consider:

• What do you care about most?
• What do you want to get from your work life?
• What do you want your relationships at work to be like?
• What are you hungry to learn?
• What environment will best foster your learning?

How to word your statement:

• Make it active
• Make it inspirational
• Make it forward thinking
• Make it a stretch for you
Core Values
The Foundation

Career Opportunities/
Skill Development

Industry Trends

Your Personal Vision – Your Career Peak

Goals to achieve along the path of achieving your career Vision

Career Stallers/
Stoppers

Distractions

Personal Mission Statement
Brand Image Discussion

You!

WAL*MART

McDonald's

GREELEY AND HANSEN
A brand is...

brand (brând ) n.
1. a promise that is clear, meaningful, unmistakable and absolutely owned by you
What is your **Personal** Brand Image?

- What do people think of you?
- Why do they think of you that way?
  - Colleagues
  - Supervisor
  - Clients
  - General Public
  - Professors
- How do you want to be known?
  - How are you actually known?
- What can you do to promote/strengthen your personal brand?
How to Develop Your Career Path

Short Term Career Planning
Short-Term Career Planning

Focus on a Time Frame This Year to the Next Few Years:

- Analyze Your Current/Future Life Style
- Analyze Your Likes/Dislikes
- Analyze Your Passions
- Analyze Your Strengths and Weaknesses
- Analyze/Understand Your Definition of Success
- Analyze Your Personality
- Analyze/Define Your Dream Job
- Analyze Your Current Situation
Understanding Motivation and Career Development

The Individual

Maslow’s Need Hierarchy

- **Physiological Needs (85%)**
  - Food, Water, Oxygen, Sanitation, Sleep, Relaxation
- **Security or Safety Needs (70%)**
- **Belonging and Affection Needs (50%)**
  - Affiliation, Affection, Nurture, Cooperation
- **Esteem Needs (40%)**
  - Self Respect, Competence, Autonomy, Achievement
- **Self Actualization Needs (10%)**
  - Self-fulfillment, Reach One’s Potential

Self Actualization Needs (10%) - Self-fulfillment, Reach One’s Potential
Esteem Needs (40%) - Self Respect, Competence, Autonomy, Achievement
Belonging & Affection Needs (50%) - Affiliation, Affection, Nurture, Cooperation
Security or Safety Needs (70%) - Avoidance of Harm From Physical Environment
Physiological Needs (85%) - Food, Water, Oxygen, Sanitation, Sleep, Relaxation
How to Develop Your Career Path

Long Term Career Planning
Long-Term Career Planning

Usually Involves a Time Frame of 5 Years or Longer; Includes Core Workplace Skill Development and Understanding Trends:

- Workplace skills:
  - Communications
  - Critical/Creative Thinking
  - Teamwork/Team Building
  - Listening/Social Skills
  - Leadership/Project Management
  - Commitment to continuous/lifelong learning

- Understanding Trends/Performing Environment Scans

- Networking/ Develop a Quality Contact Network
Short/Long-Term Career Planning

Four Dimensions for Career Success:

- Strong Skills & Broad Competencies
- Great Attitudes & Behaviors
- Managing Bosses & Others Well
- Understanding The Unwritten Rules
What is Communication?

- Communication by definition

*Communication*

- The exchange of thoughts, messages, or information, as by speech, signals, writing, or behavior.

- The imparting or interchange of thought, opinions, or information by speech, writing, or signs

- Conveying information; providing feedback
The Communication Model

- A simple communication model with a **sender** transferring a **message** containing information to a **receiver** who responds with **feedback**.
Why do we communicate in the workplace?

- Develop Solutions
- Explain Information
- Improve Performance
- Make Informed Decisions
- Streamline Project Work
- Tap into strengths of teammates
- Build Trust and Respect
- Document work
- Develop business opportunities
- Describe a construction project
- Interview people to check their qualifications
Question:

How else do people communicate in the workplace?
Response

• Non-verbal communication
  – Gestures, facial expressions, posture, eye contact

• Image
  – Clothing, hair style, general hygiene, etc.

• Social Interaction
  – Lunch, breaks, outside activities with colleagues, travel time
Habits for Success

- Maintain a healthy lifestyle outside of work
- Get Involved
- Keep it Positive
- Give it time
- Celebrate your successes
Finding a Mentor

• The Importance
  – Acclimating, Transitioning, Learning

• How to do it
  – Observation
  – Who are the people who “get things done”
  – Role Model
  – May or may not be your manager
Managing Bosses and Others Well

It is All About Knowing and Understanding **Expectations** of All Parties, as well as Knowing What’s Going on Around You:

- **As a Subordinate:**
  - Get Involved
  - Collaborate – Exhibit “Team Spirit”
  - Lead Initiatives – “Take Command”
  - Develop Your Own People – Be “Outwardly Focused”
  - Stay Current
  - Drive Your Own Growth
  - Be a Player for All Seasons
Managing Bosses and Others Well

It is All About Knowing and Understanding Expectations of All Parties, as well as Knowing What’s Going on Around You:

- As a Leader:
  - Define Specific Goals for Your People
  - “Paint a Picture” of What Accountability Looks Like – Discuss It
  - Be Available
  - Be Approachable
  - “Take One for The Team” – Don’t Throw Your People Under the Bus
  - Compensate People Fairly – Explain How People are Rewarded
Career Stallers and Stoppers

Trouble With People – Not Relating Well to Others:
• Unable to Adapt to Differences
• Blocked Personal Leaner
• Defensiveness
• Insensitive to Others

Trouble With People – Self Centered:
• Lack of Ethics and Values
• Arrogant
• Betrayal of Trust
• Lack of Composure
• Overly Ambitious
• Political Missteps
Career Stallers and Stoppers

Trouble With People – Doesn’t Inspire or Build Trust:
- Failure to Build a Team
- Failure to Staff Effectively
- Overmanaging

Trouble With Results – Too Narrow:
- Key Skill Deficiencies
- Non-Strategic
- Overdependence on an Advocate
- Overdependence on a Single Skill
- Poor Administrator
Criteria for Identifying High Performance Individuals

1. Drive to Excel:
   – Driven to Succeed – Good Isn’t Enough – Willing to Go the Extra Mile
   – True to Their Values – Willing to Sacrifice/Make Hard Choices

2. Catalytic Learning Capability
   – Relentless Learners Coupled With Action/Results Orientation
   – Common Sense to Translate New Ideas into Results for Company

3. Enterprising Spirit
   – Always Searching for Productive Ways to Blaze New Paths
   – Take on the Challenges of Leaving Comfort Zones for Advancement

4. Dynamic Sensors
   – High EQ – Ability to Quickly Read Situations and Know the Right Action
   – Knack for Being in the Right Place at the Right Time to Take Advantage
Career Ambition

“Champions aren’t made in gyms. Champions are made from something they have deep inside them: A desire, a dream, a vision. They have to have last minute stamina, they have to be a little faster, they have to have the skill and will ----- But, the will must be stronger than the skill.”

---- Muhammad Ali
Summary
Career Path

Today

Determine Your Vision

Set a Course, Build Skills, & Monitor Environment

Successful Career – Doing Your Best Each Day

Future
Summary

- The 21st Century Is the Water Century
- It’s Your Career – Manage It!!!
- Trends Will Change – Be Familiar With Them/Look for Opportunities
- Continue Life Long Learning and Knowledge Transfer
- Leadership & Communication Skill Development Critical to Your Future
- Now is the time for Imagination/Creativity to Understand the Relationship of Technical Solutions to Meeting Society Needs
You Have Chosen A Nobel Profession

Do you know how often you turn me on?

Only Tap Water Delivers™

Utility Company Logo Goes Here
QUESTIONS?