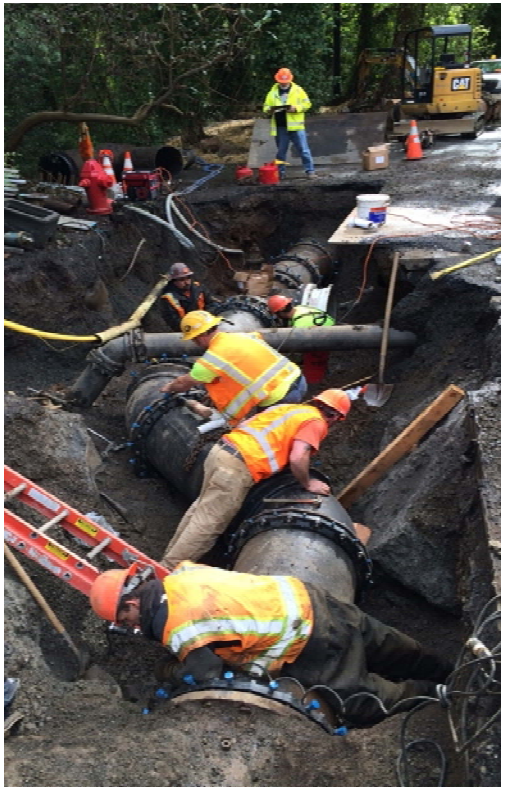
Lake Oswego-Tigard Water Partnership

Program Management Keeps New Supply System on Track for Lake Oswego –Tigard (LOTWP)

AWWA – Eugene – May, 2014



Mike Prett, PE

Supervising Engineer with Brown and Caldwell – Deputy Program Manager

Joel Komarek, PE, CWRE

City of Lake Oswego – LOTWP Program Director

Today's owners face challenges for large project or program delivery

Presentation Objectives – Program Management (PgM) Delivery - LOTWP

What is the LO-Tigard Water Partnership (LOTWP)?

Brown AND Caldwell

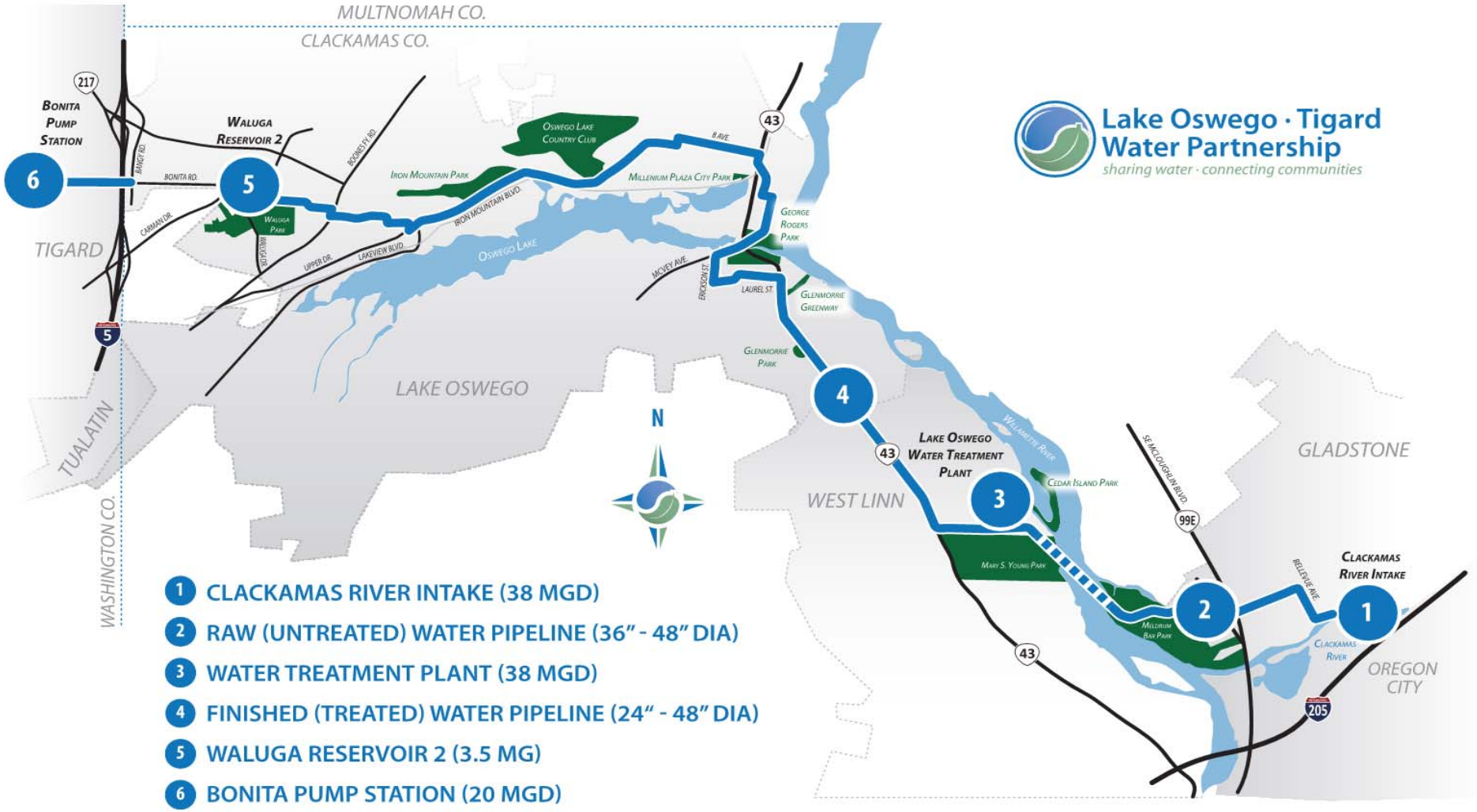
Lake Oswego · Tigard Water Partnership
sharing water · connecting communities
lotigardwater.org

Tale of Two Cities – Teaming for clean water – Lake Oswego and Tigard

- 2008 – Lake Oswego – Tigard Partner (IGA)
- Constructing/upgrading water facilities together (16 to 38 MGD)
- City of LO – Managing agency - $250M program
- Combined population – 85,000

Partnership provides facilities needed for long term water delivery

All facilities online by July 2016



Tale of Two Cities – Teaming for clean water – Lake Oswego and Tigard

- Benefits:
  - Clean water
  - Sharing of cost
  - Secure long term supply
  - Old/undersized facilities
  - Resilient facilities (upgrades)
  - Good economic climate

Why choose PgM delivery model? – An owner perspective

- Extension of staff
- Access to tech experts
- PgM large delivery experience
- Owner ability to stay engaged
- Nimble/adaptable team
- Team consistency

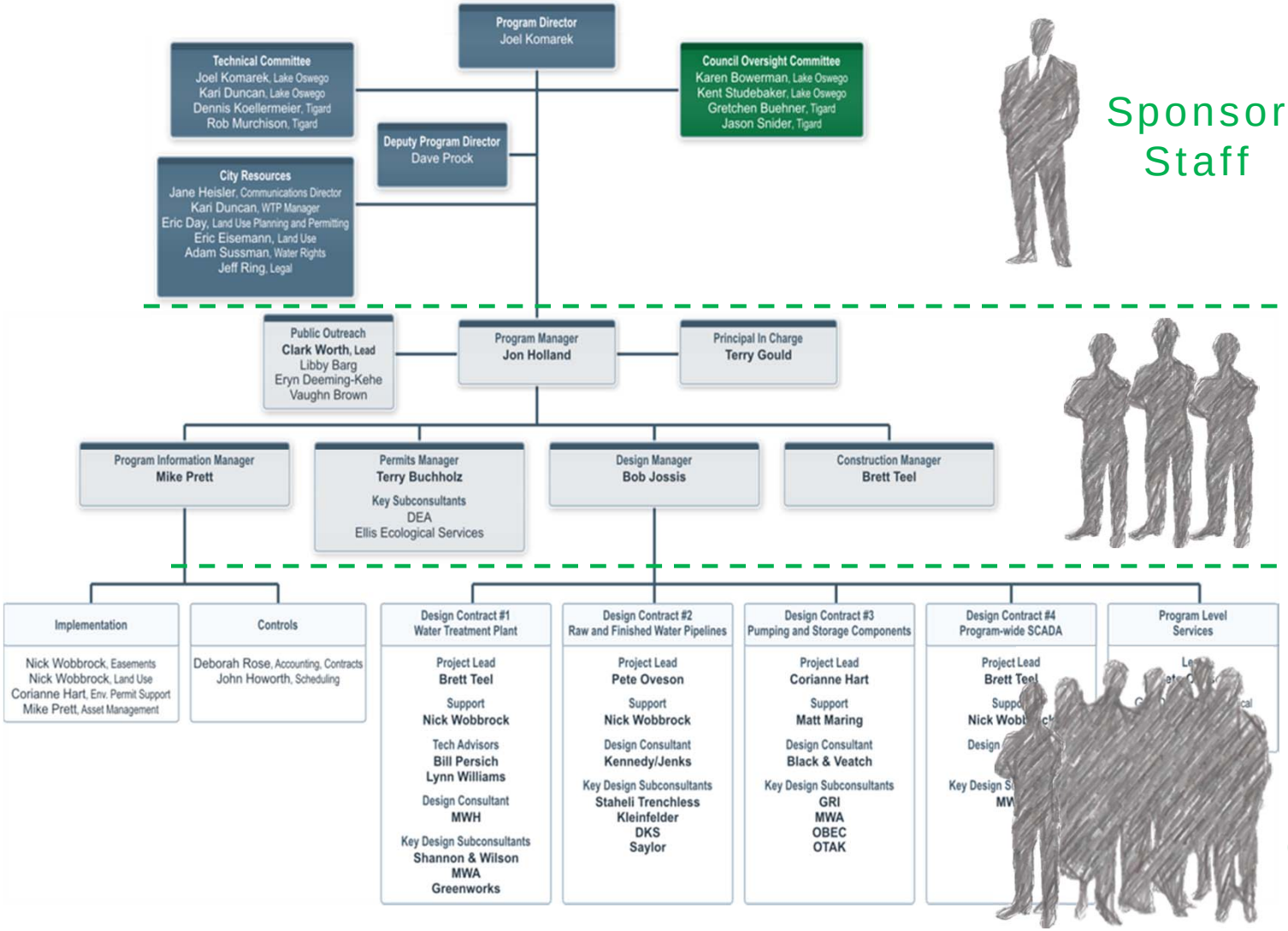
Act I

Getting going – program setup – team and controls

Brown AND Caldwell

Lake Oswego · Tigard Water Partnership
sharing water · connecting communities
lotigardwater.org

Targeted team structure keeps bases covered while staying efficient

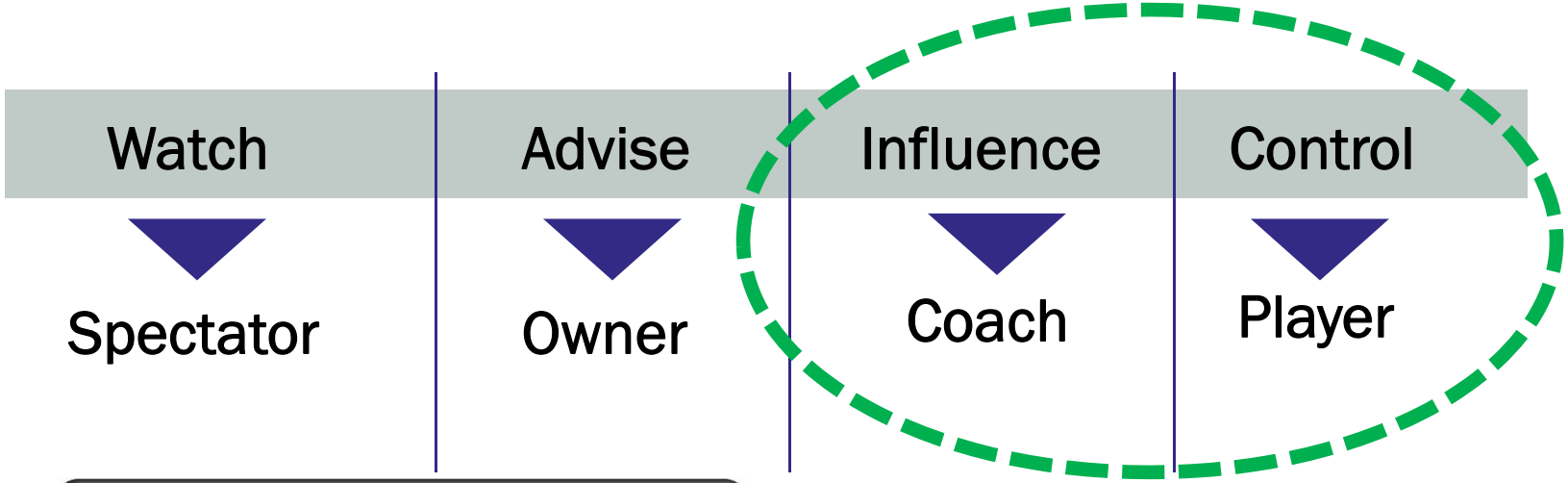


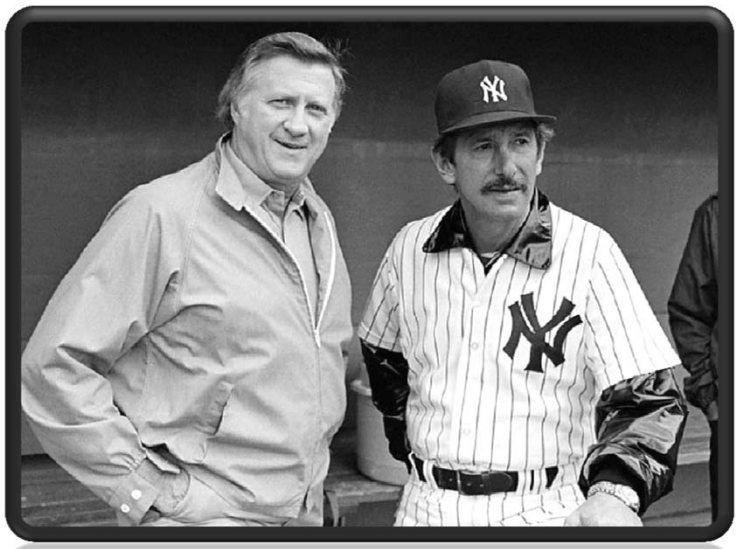
Sponsor Staff

PgM Core Team and Experts

Design Consultants and Construction

LOWTP – engaged owners enable progress – cement decisions





***Leverage owner staff experience**

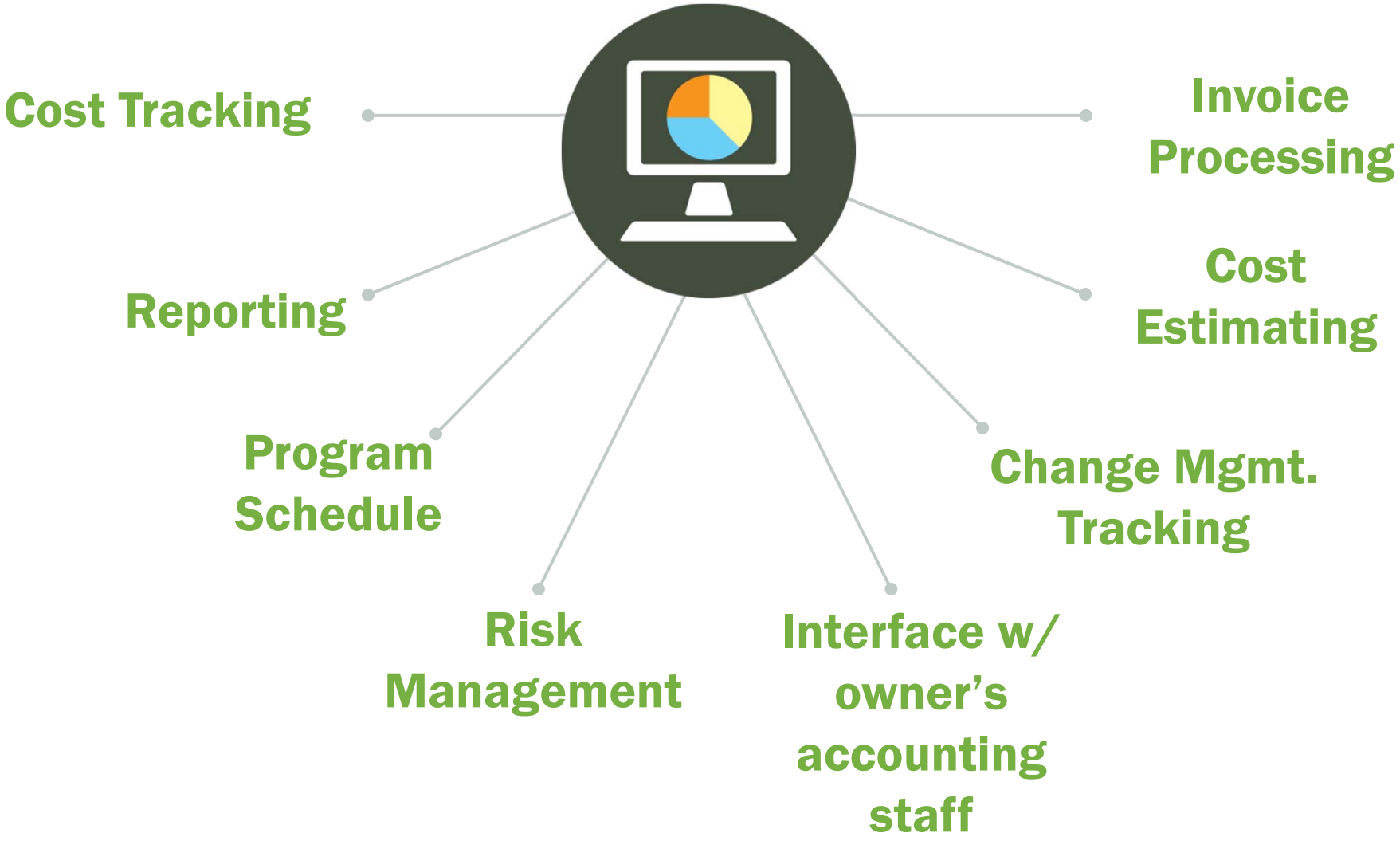
Over-arching PgM essential functions foster consistency

Program Control Philosophy

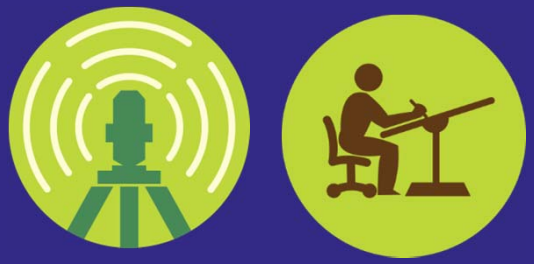
Managing a large program by looking at detailed data from a series of individual projects is like trying to tell time by looking at the second hand."

- Chuck Thomsen

Program controls implemented – *(How to convince yourself and everyone else the program is under control)*



Act II

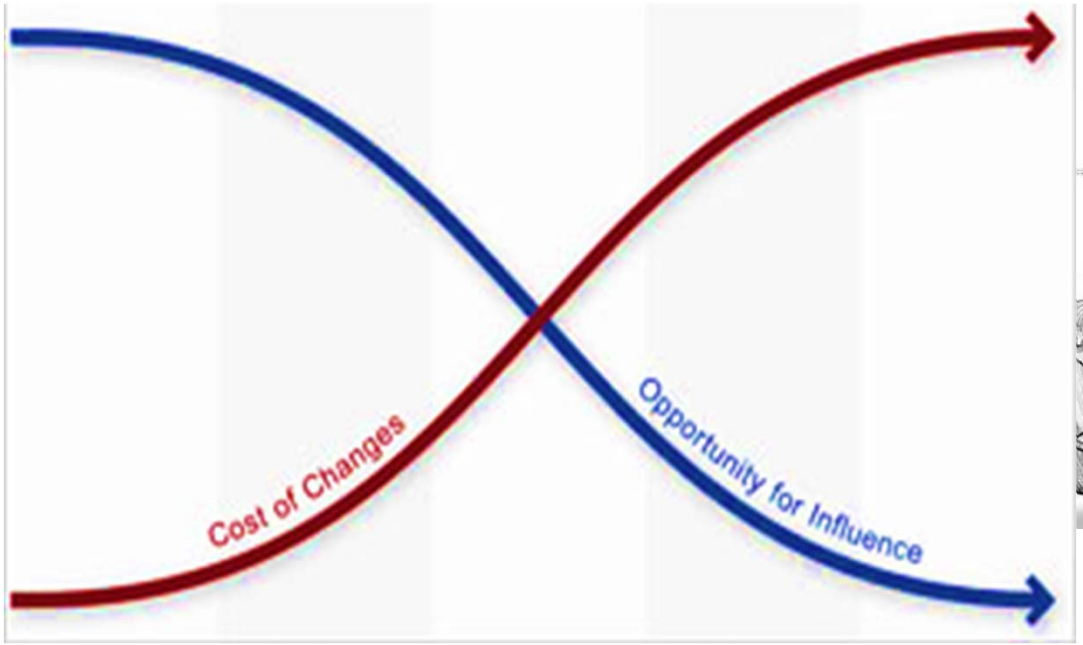


LOTWP team & controls in-place, roles clear
.....now define the program

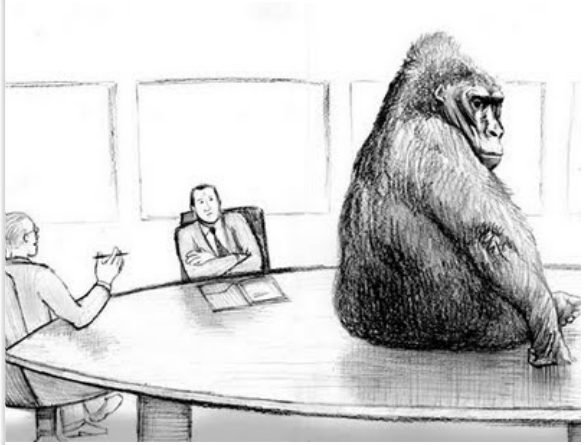
Brown AND Caldwell

Lake Oswego · Tigard Water Partnership
sharing water · connecting communities
lotigardwater.org

Program!..... (and project) definition, optimizes projects, minimizes change



High cost of change



Low ability to Influence

Time

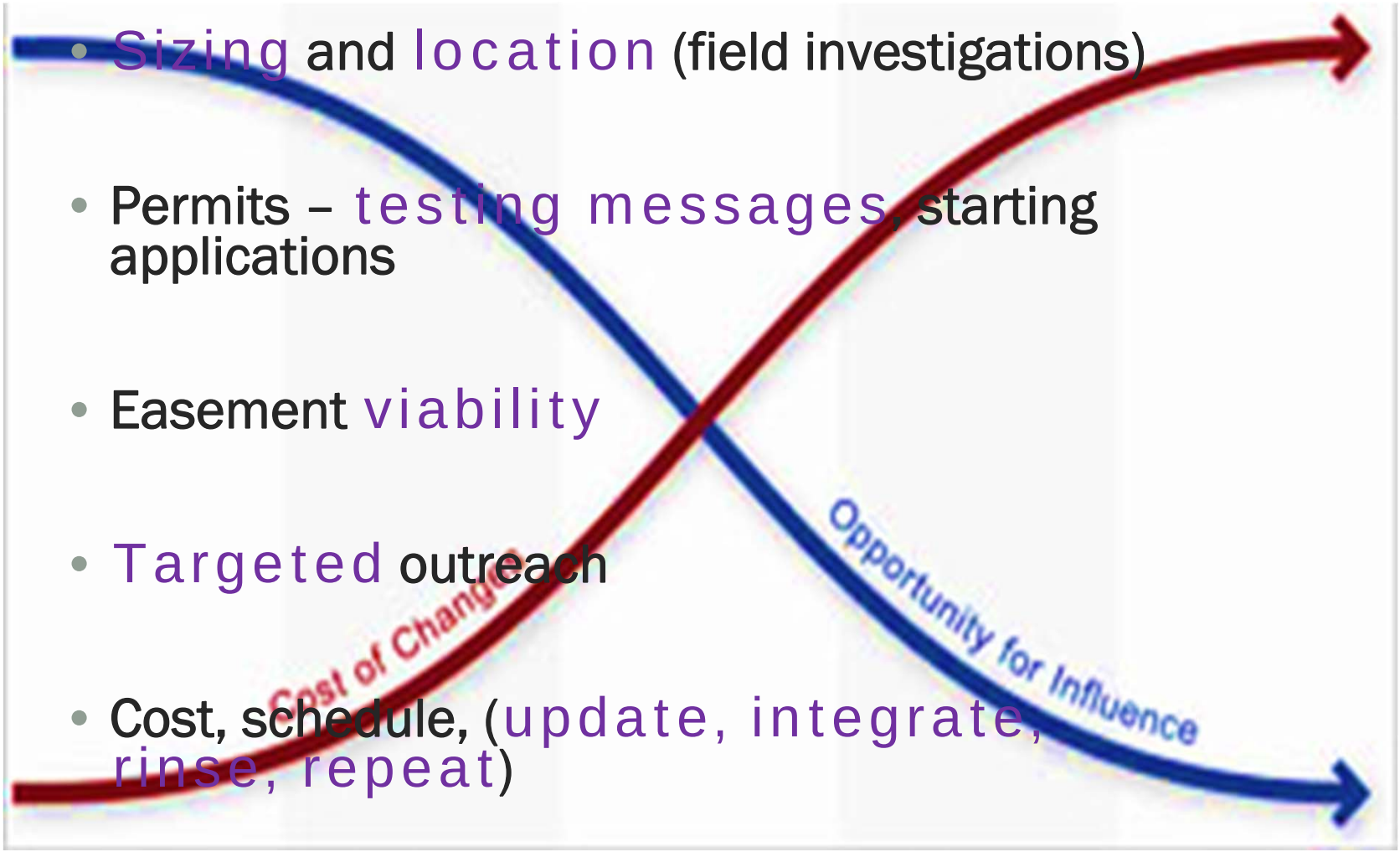
Program definition – alternatives fine-tuned for clear designer scopes

- Facility alternatives optimized at all locations
- Thorough treatment process evaluation (public input)
- Triple bottom line impacts minimized

Treatment Selection Scorecard

Program definition – many global and project specific considerations

- Sizing and location (field investigations)
- Permits – testing messages, starting applications
- Easement viability
- Targeted outreach
- Cost, schedule, (update, integrate, rinse, repeat)

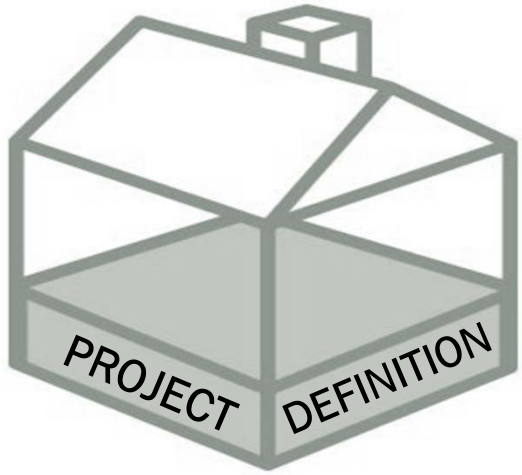


Procurement – LOTWP obtains most qualified design firms

- Thorough project definition foundation
- Sensible facility –specific prequalification
- RFP – Introduces program-level expectations to designers

Procurement is:

- Standardized
- Repeatable
- Designers program role defined



Act III

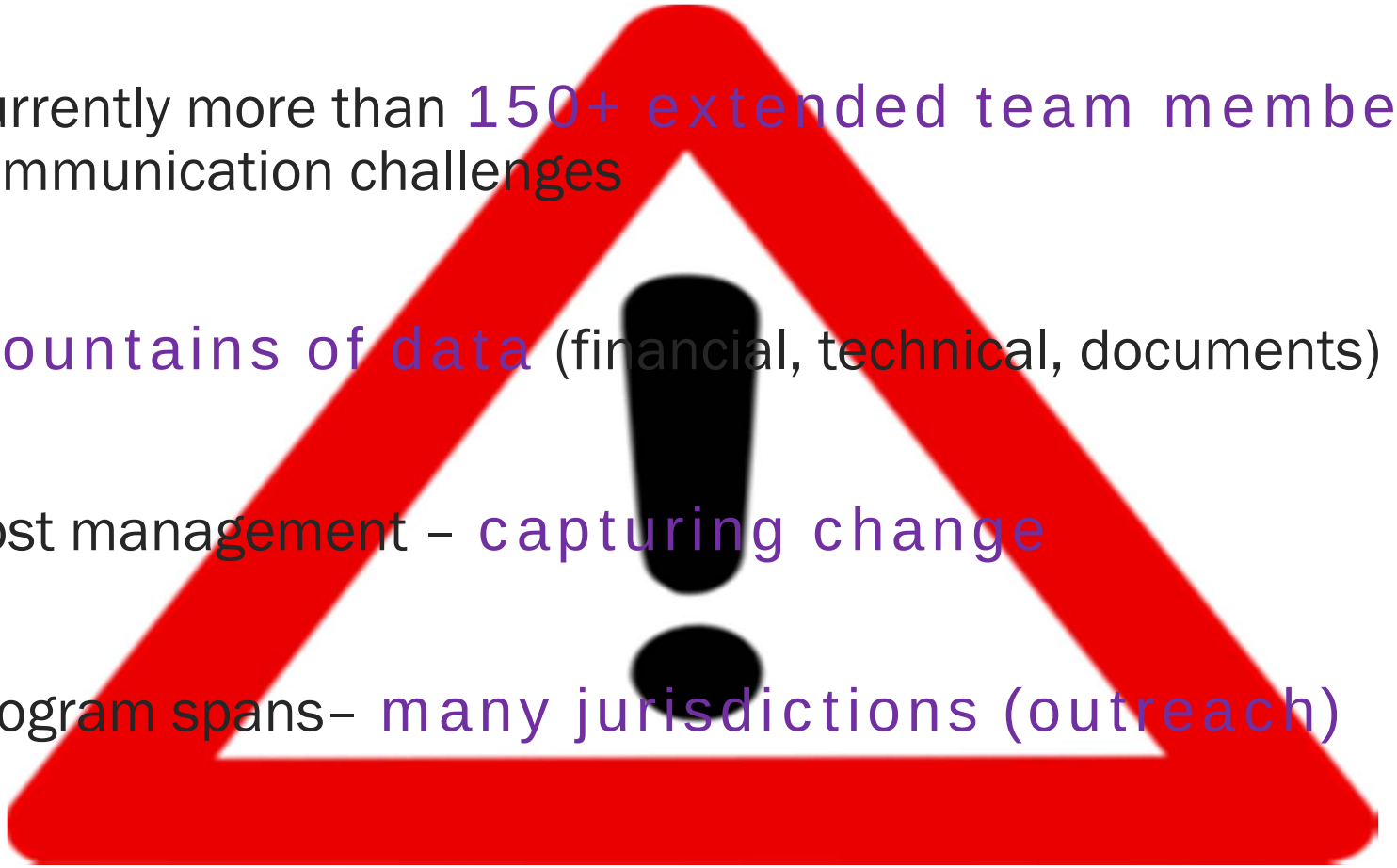
Design in motion, team rapidly growing, challenges increasing.....

Brown AND Caldwell

Lake Oswego · Tigard Water Partnership
sharing water · connecting communities
lotigardwater.org

As delivery advances spending, scrutiny, and team size increase

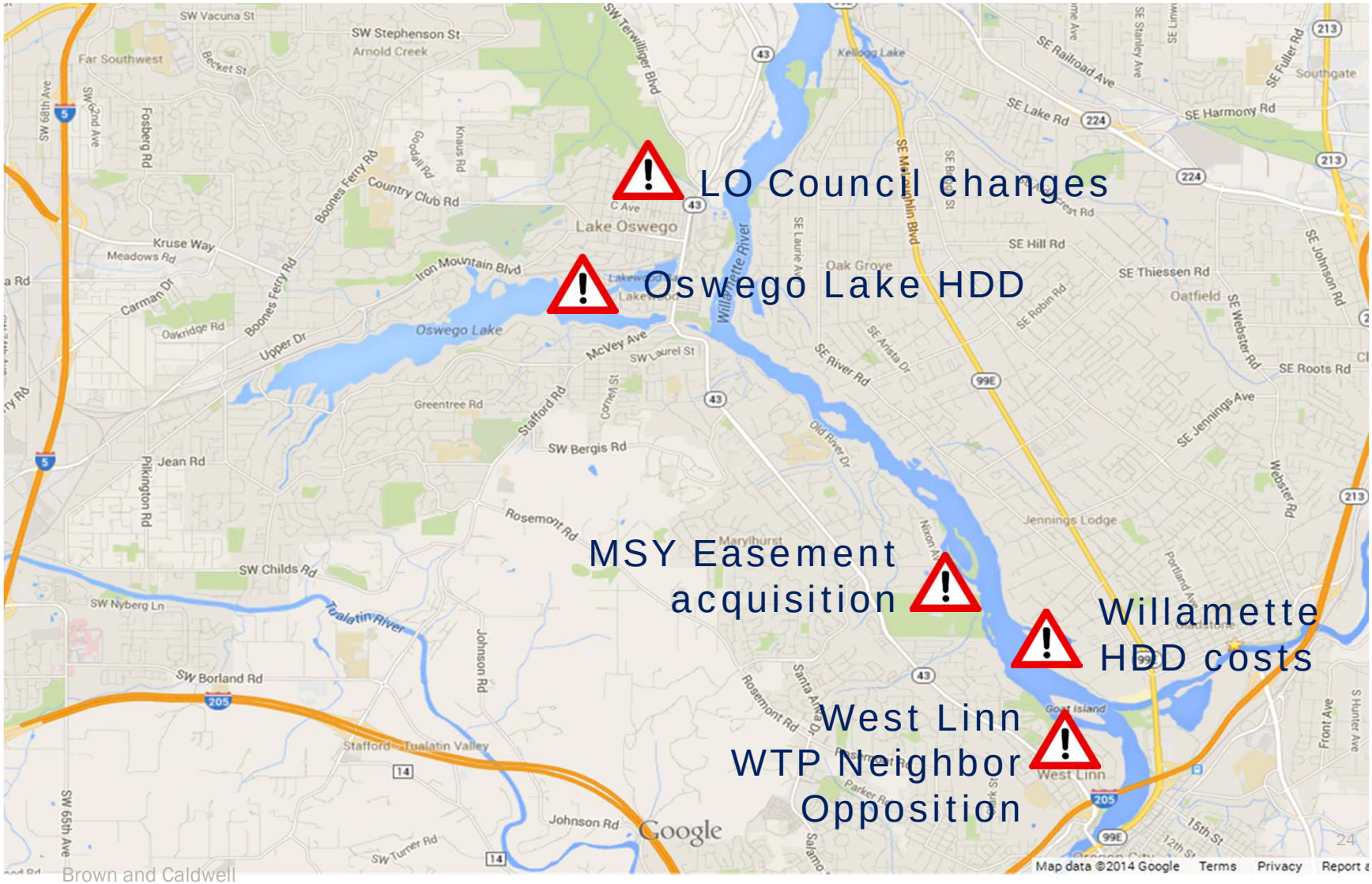
- Currently more than 150+ extended team members – communication challenges
- Mountains of data (financial, technical, documents)
- Cost management – capturing change
- Program spans– many jurisdictions (outreach)



Delivery advances - spending, scrutiny, and team size increase

- Numerous schedule interdependencies across projects (numerous permits)
- Over many years – city council members change
- Specialty qualified contractors needed– but don't restrict competition

Specific key hurdles *(separate presentation by Joel tomorrow)*



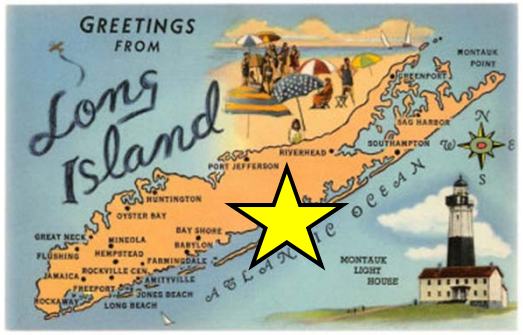
Act IV

Mitigating LOTWP risks, maintaining control and getting to construction

Brown AND Caldwell

Lake Oswego · Tigard Water Partnership
sharing water · connecting communities
lotigardwater.org

Delivery ethos – Ongoing clear, consistent communication *(can't communicate enough!!)*



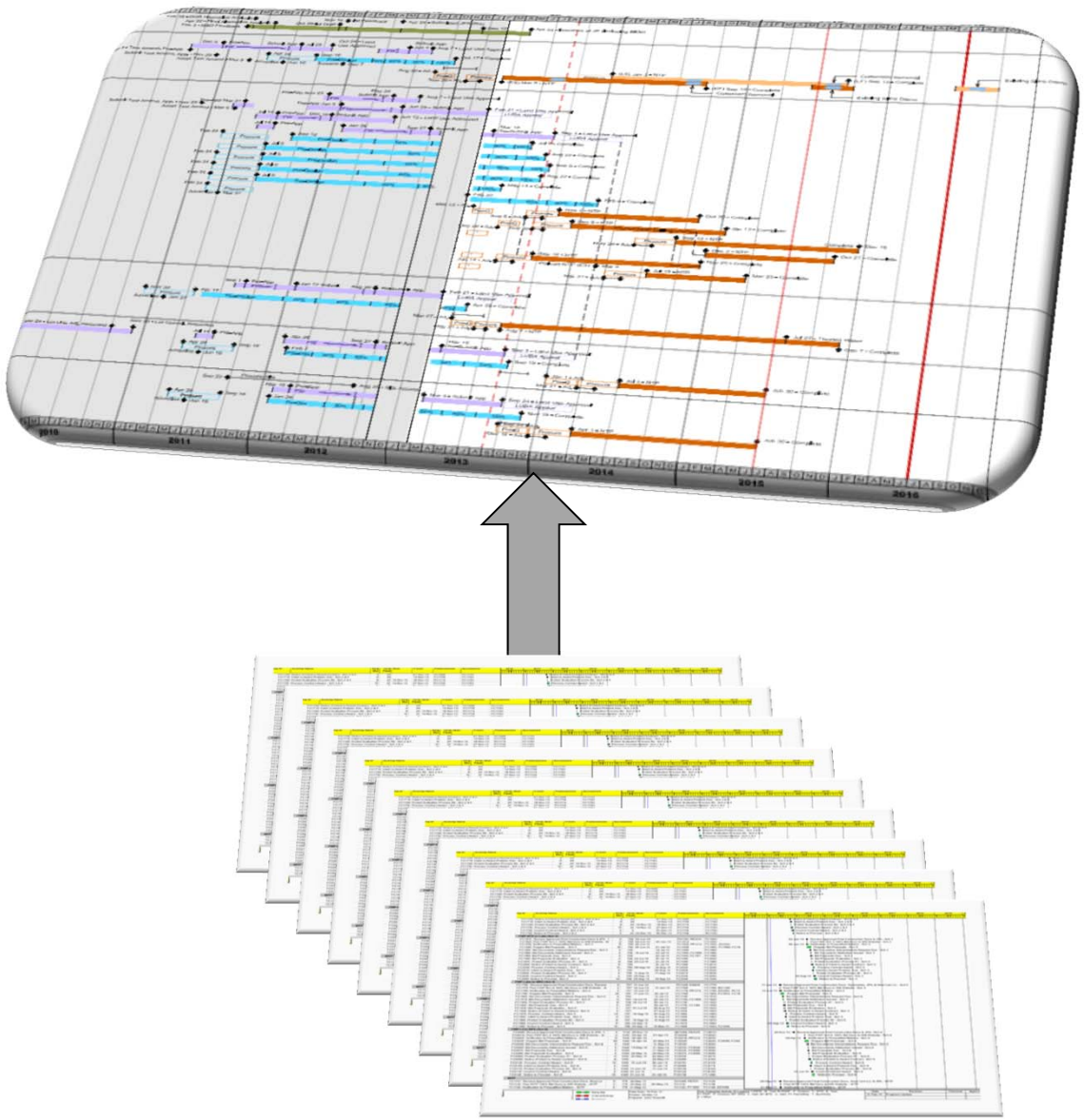
Mike's hometown - zero communication

LOTWP PMO – Communication Central

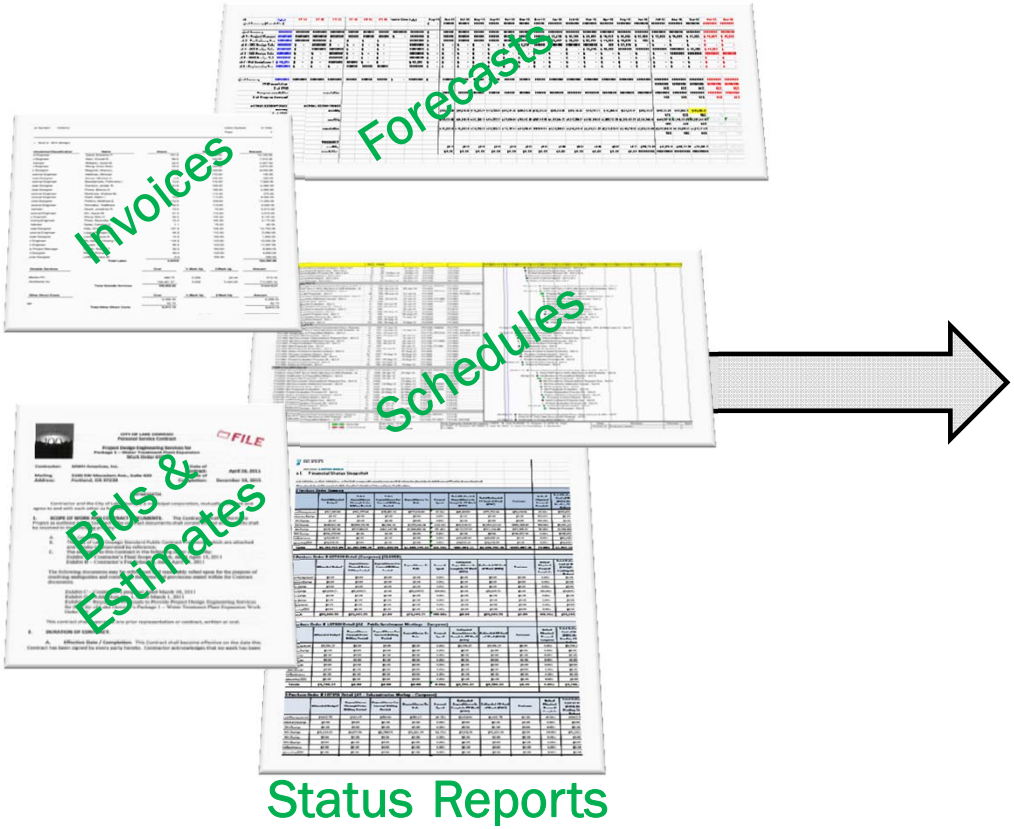
- Co-located team - lots of face to face
- Meetings, meetings!! – at all levels
- Focused technical workshops
- Centralized web-based tools (PMIS)
- Regular reporting at all levels

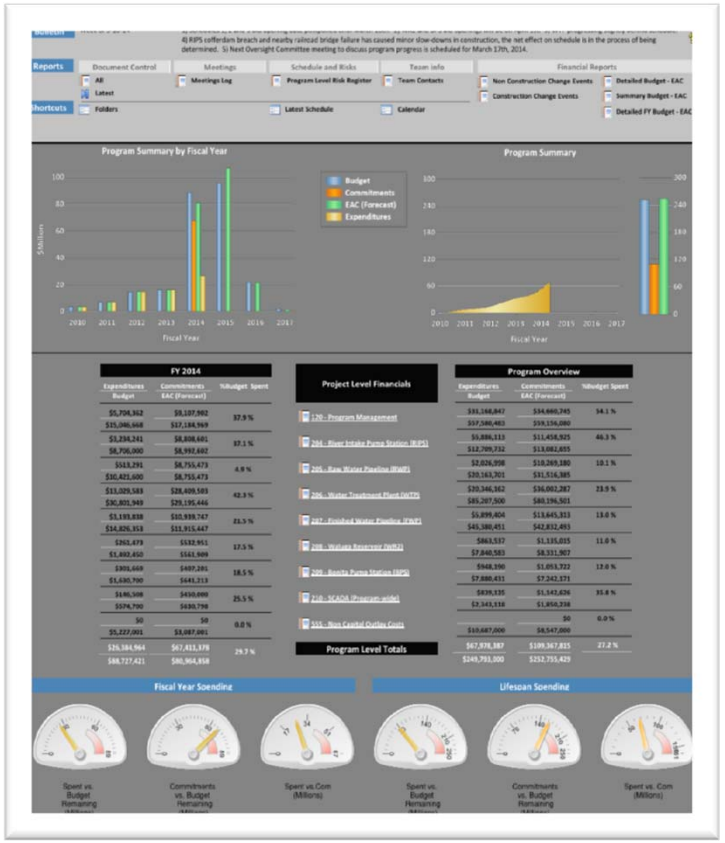
Numerous schedules and drivers rolled up for decision making

- Designer and contractor schedules provide accurate detail
- All constraints incorporated (land use, seasonal work windows)
- Rollup becomes a widely used tool



Program Management Information System – Mountains of data become digestible

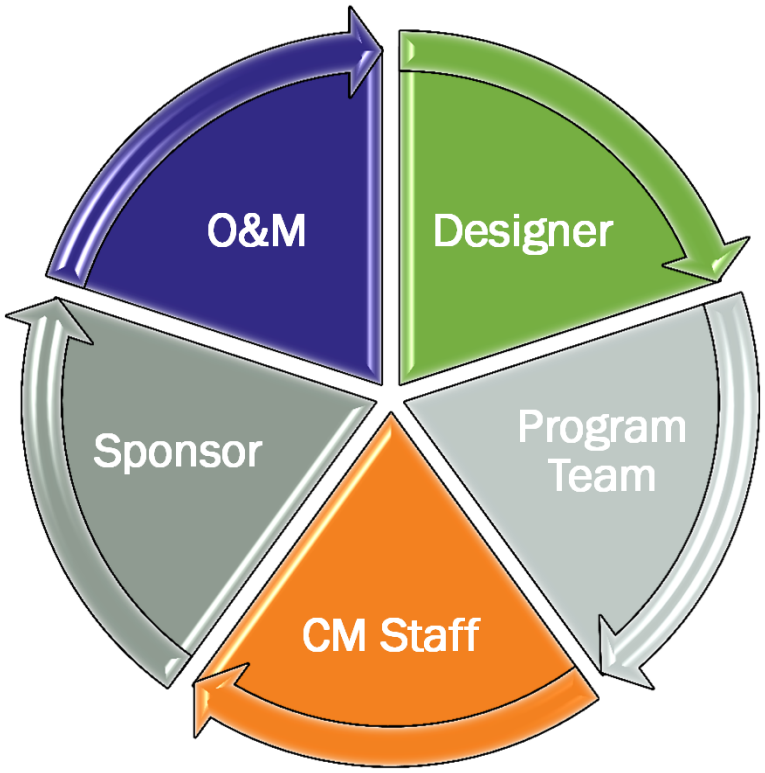




Simplified PMIS Output

Adopt a best value/high quality mindset

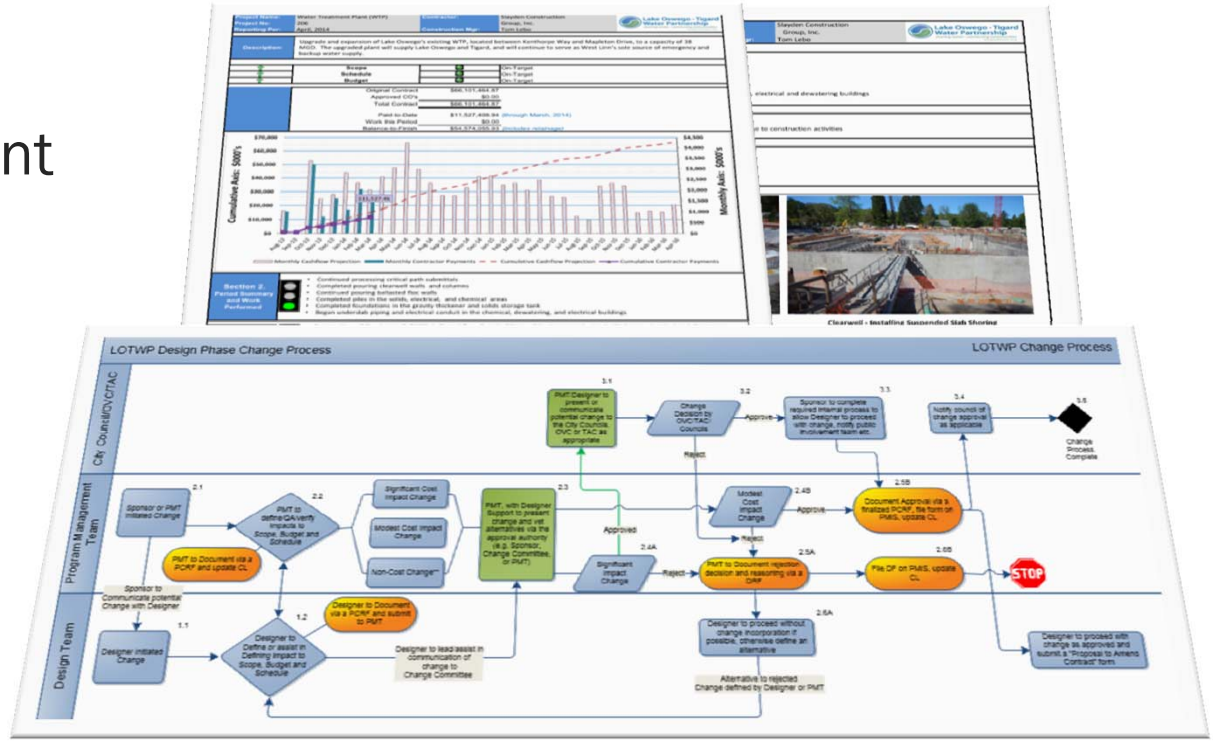
- Early Value Engineering
- Progressive cost estimating
- Designing to budget
- Always be looking for savings



Inclusive QA/QC process

Business processes?..... aren't we engineers? Yes, but we run businesses.

- Bottom-up status reporting
- Change management
- Risk management
- O&M manual
- Asset management
- Financials
- Construction documents



Delivery structure has allowed senior management to tackle big issues.....

Program Director and Program Manager

Land use or permit issue

.....while program keeps moving!

permitting, controls, outreach, easements, expert engagement, design and construction management, SCADA, O&M, asset management

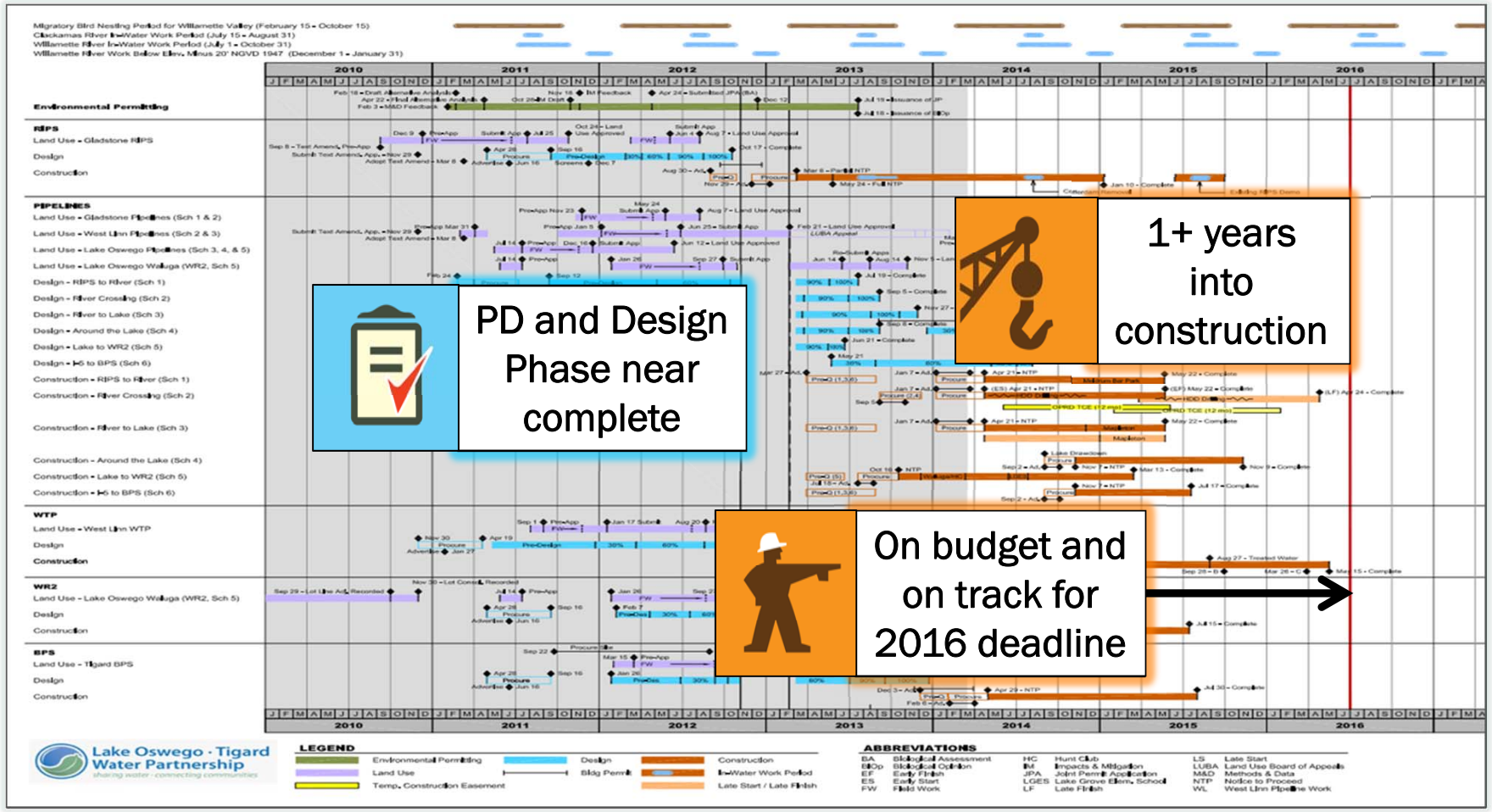
Act V

In year 5 – Construction underway

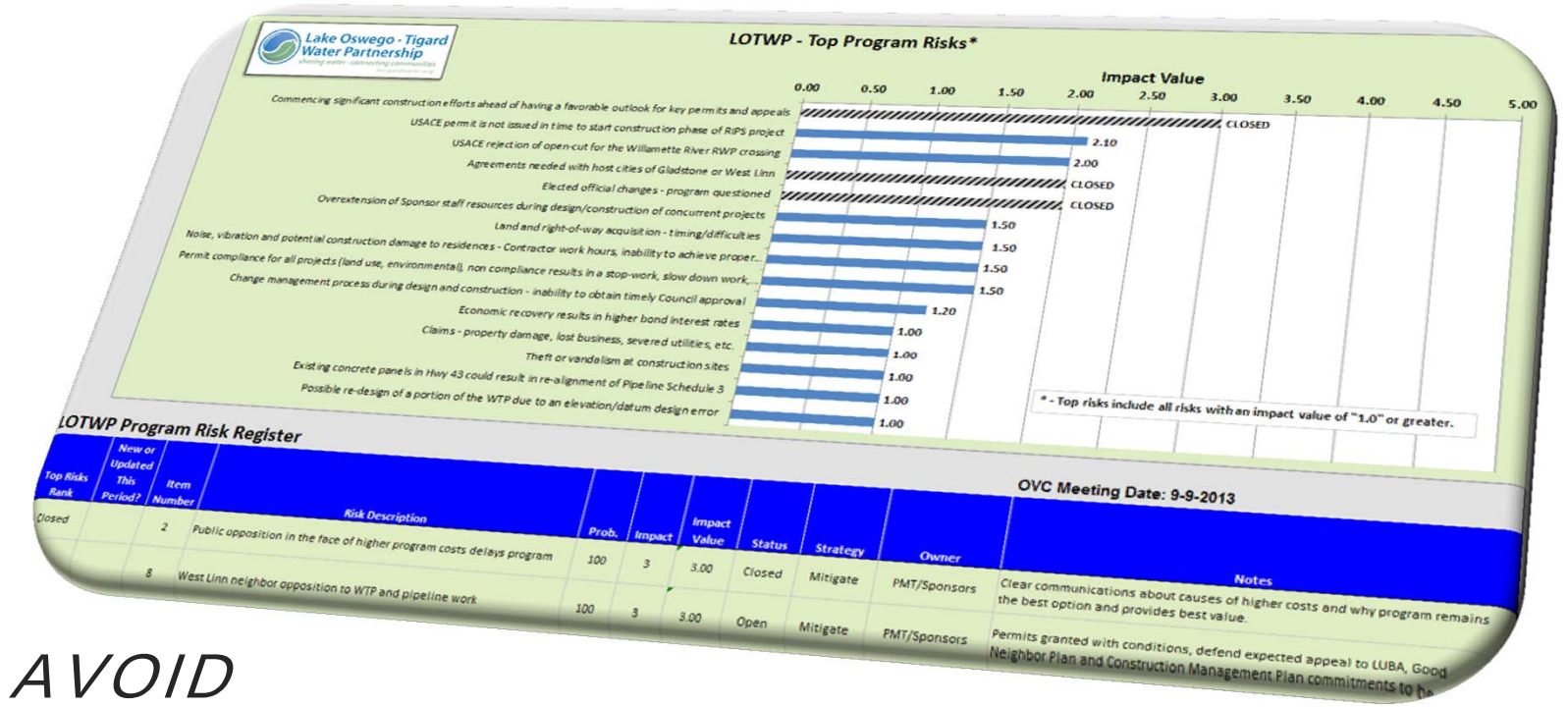
Brown AND Caldwell

Lake Oswego · Tigard Water Partnership
sharing water · connecting communities
lotigardwater.org

With almost all work bid, managing construction is the ballgame from here



Continue managing program and project level risks



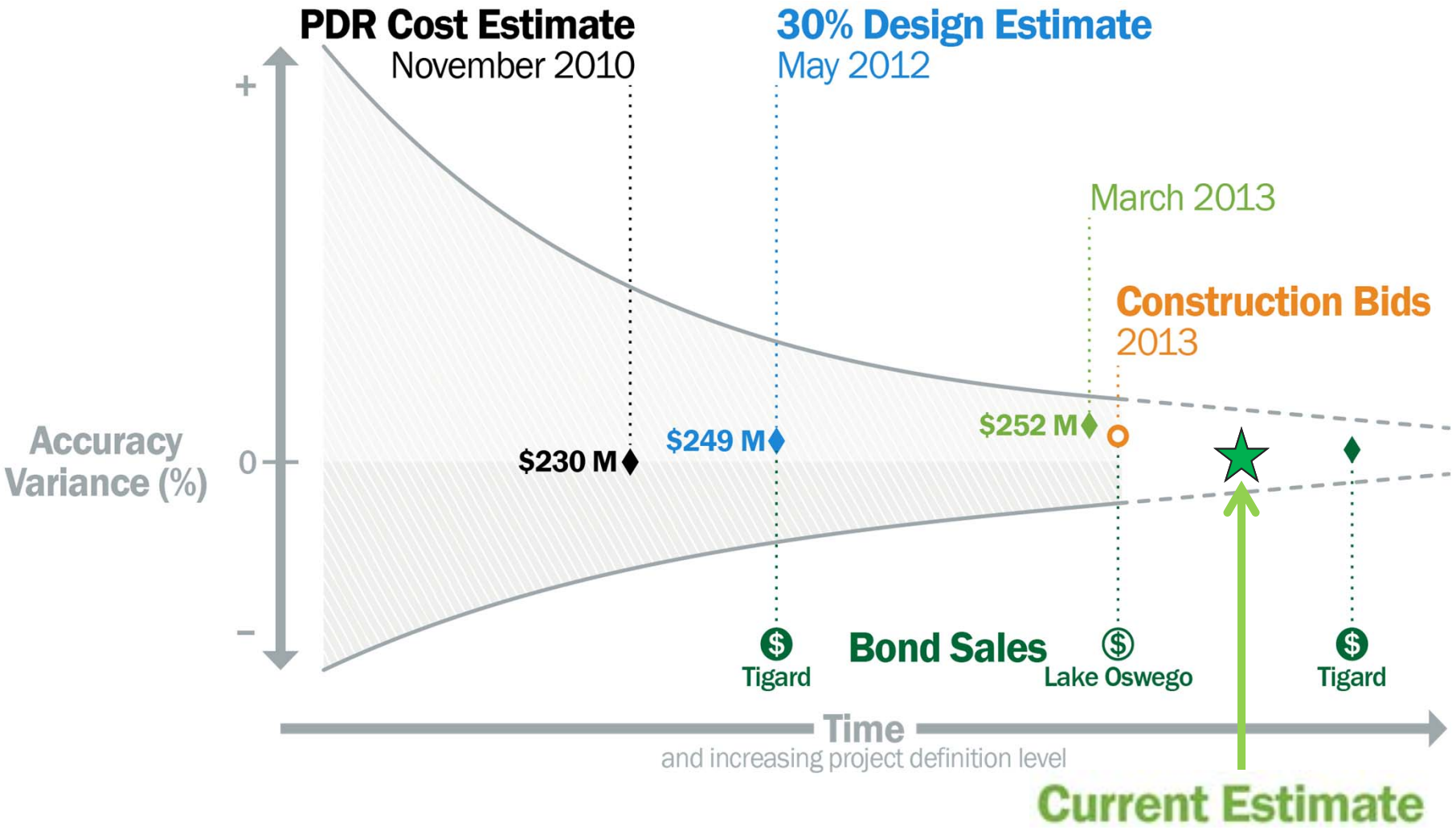
AVOID

MITIGATE

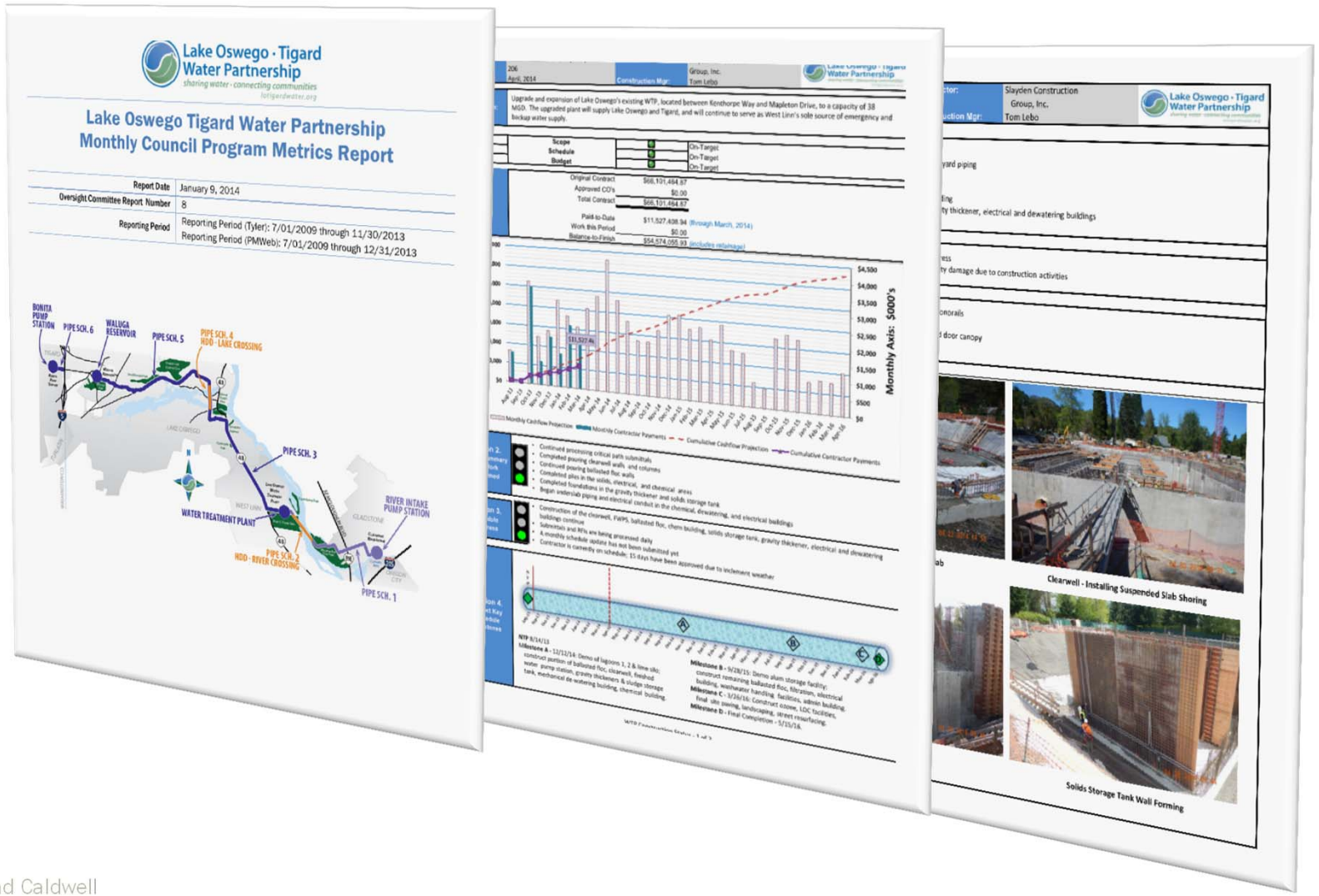
TRANSFER

ACCEPT

Continue to provide a clear view to stakeholders of cost trends



Continue to provide a clear view to stakeholders of construction progress

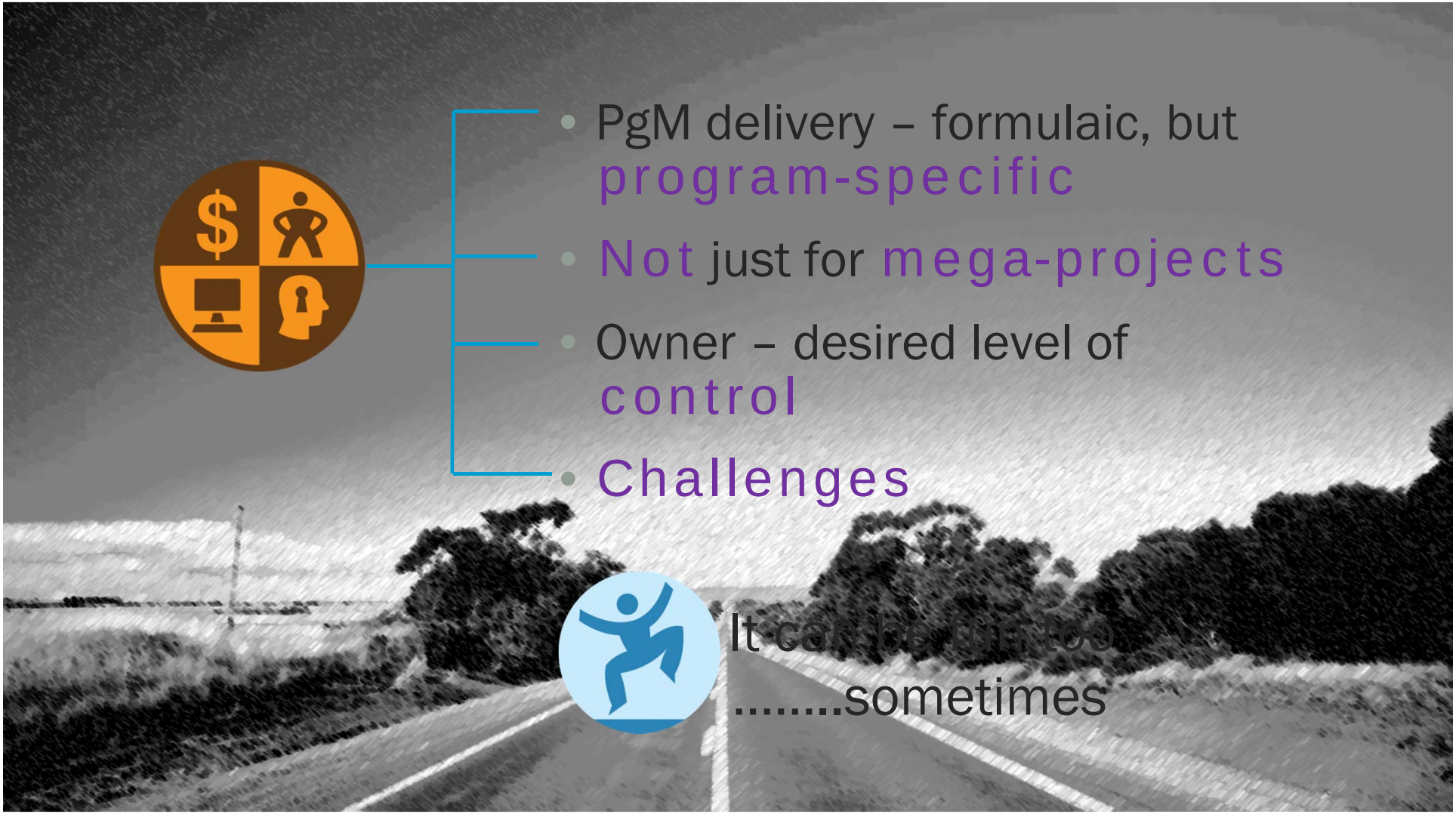


Key pipelines and facilities well into construction

Act VI

Epilogue

Lessons, thoughts and considerations – large delivery



- PgM delivery – formulaic, but program-specific
- Not just for mega-projects
- Owner – desired level of control
- Challenges

It can be difficult too .....sometimes

Lessons, thoughts and considerations – large delivery

- Agencies can partner
- Owner needs are unique
- Rolled-up reporting eases scrutiny
- Gain efficiencies during delivery
- Learning and growth across whole team

CIP needs moving from the horizon to implementation

Partnering and PgM style delivery can.....

Provide the means for an owner to bring large, far-off CIP endeavors in closer

(even for smaller agencies)

Questions???

Brown AND Caldwell

Lake Oswego · Tigard Water Partnership
sharing water · connecting communities
lotigardwater.org