



Cost Drivers for Environmental Dredging and Capping Projects

Eleventh International Conference on the Remediation and
Management of Contaminated Sediments

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Austin, Texas

Meet the Panel

Moderators

Andrew Timmis
Dir. Business Development
J.F. Brennan Company, Inc.



Steve Garbaciak
Technical Delivery Leader
Foth Infrastructure & Environment, LLC



Panelists

Robert Rule
Project Coordinator/ Principal
de maximis, Inc.



Greg Smith
Vice President
J.F. Brennan Company, Inc.



Chris Greene, PE
Senior Principal
Geosyntec Consultants, Inc.



Steve Shaw
Corporate Project Manager/Estimator
Sevenson Environmental Services, Inc.



Paul LaRosa, PE
Principal Engineer
Anchor QEA



Scott Cieniawski
Section Supervisor
U.S. EPA – Great Lakes National Program Office



Introduction

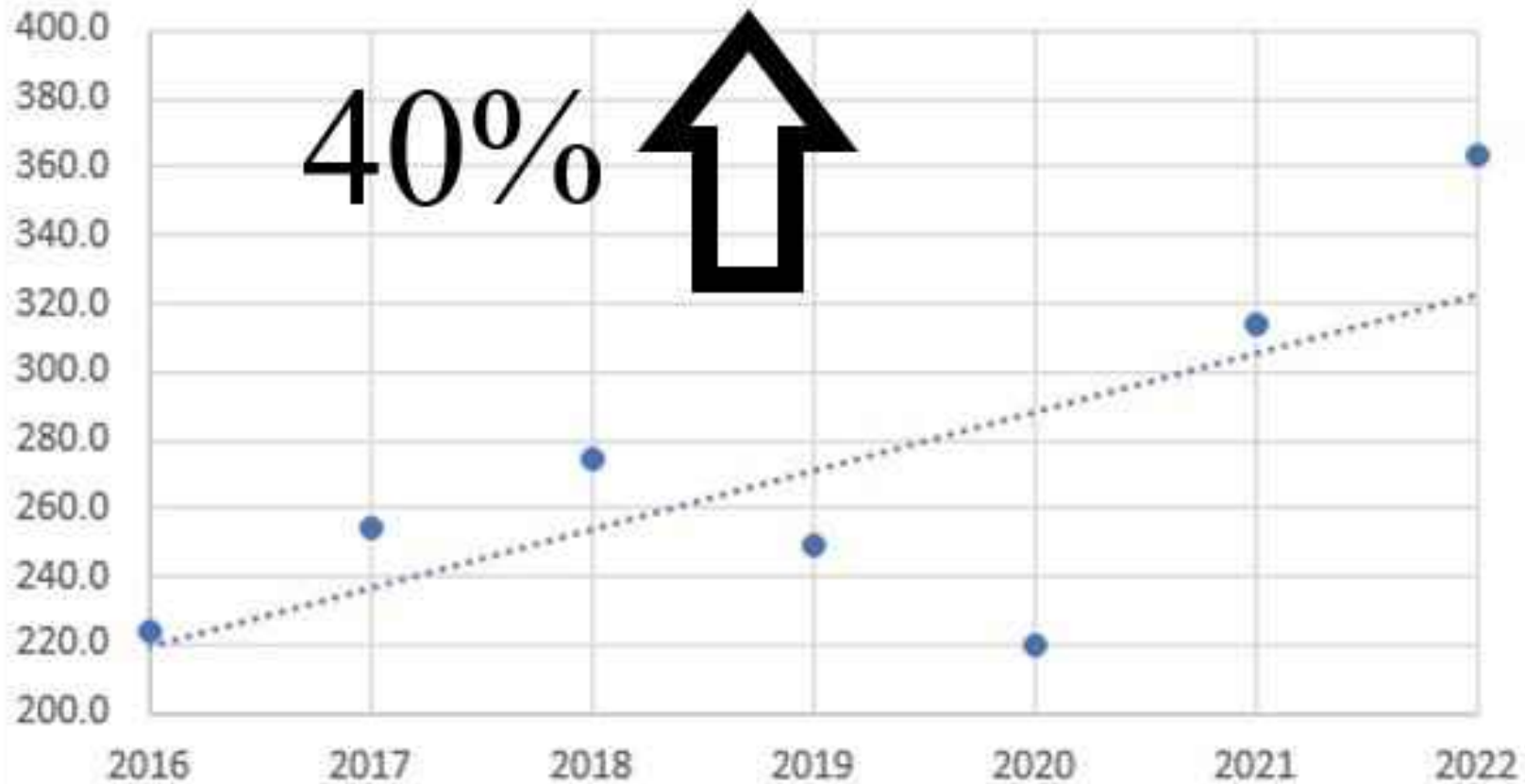
- Panel's purpose
 - Why are we doing this panel?
 - Why is it important?
- Supply Chain / Inflation
- Historic Trends
- What do we want to accomplish?

Material Price Trends

FRED — Producer Price Index by Commodity: Metals and Metal Products: Hot Rolled Steel Bars, Plates, and Structural Shapes

360

Basic Organic Chemicals

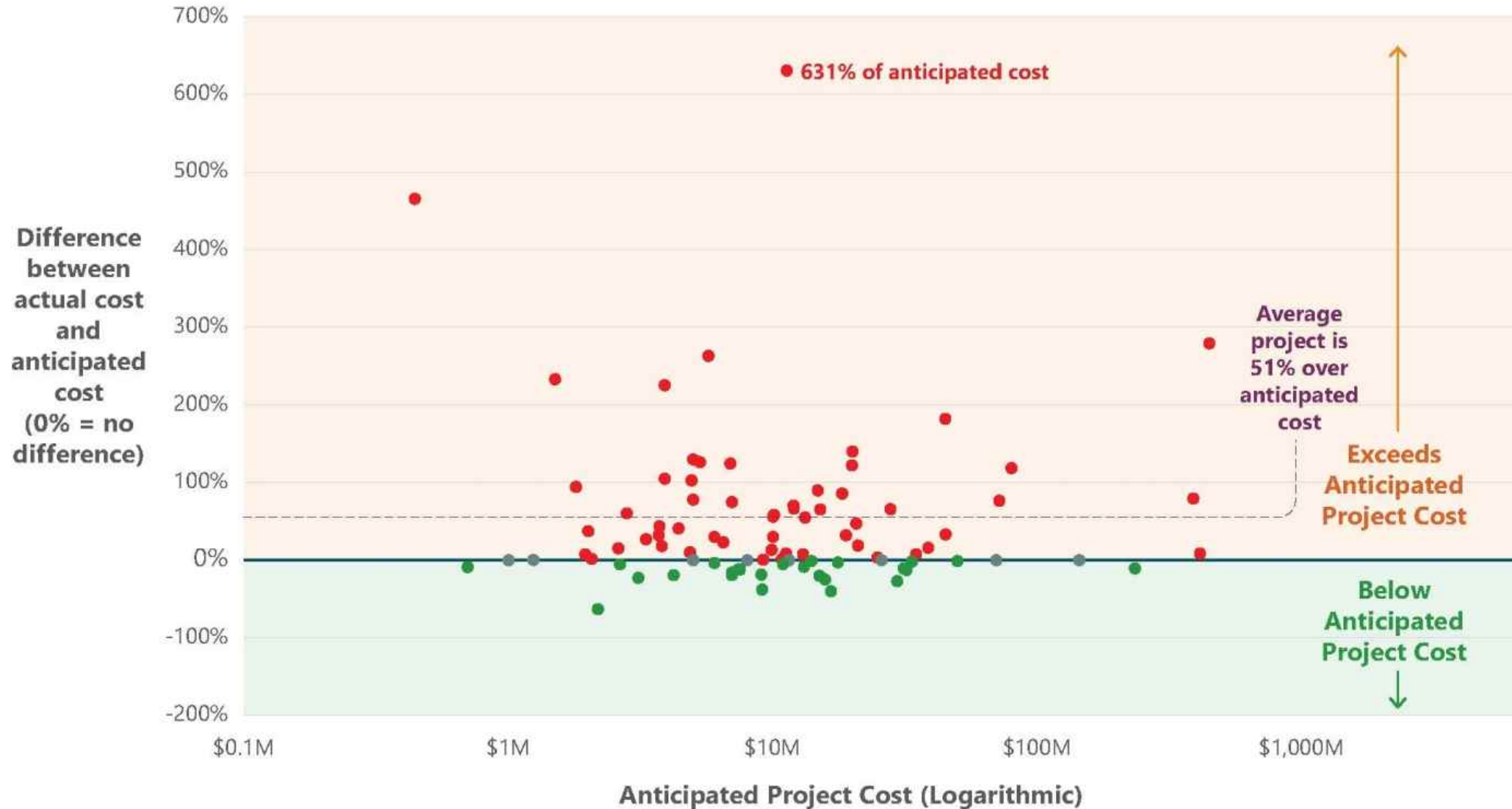


Shaded areas indicate U.S. recessions.

Source: U.S. Bureau of Labor Statistics

fred.stlouisfed.org

Project History Cost

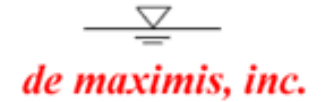


Topics of Discussion

- Procurement
- Schedule
- Risk Management
- Contractor Involvement
- Industry Capacity
- Regulatory Drivers

Procurement

Robert Rule
Project Coordinator/ Principal
de maximis, Inc.



- **Cash Flow / Burn Rate / Payment Terms**
- **Risk Transfer**
- **Cost Controls (Bid Techniques)**
 - Contractor Retention - Design-Build, CM at Risk, etc.
 - Lump sum, Unit Rate, Time & Materials
- **Consensus of Procurement Team for Contractor Selection**
 - How to Develop Bid List / How Many to Bid
 - Best Value vs Low bid
- **Contractor Bidding**
 - Reverse Auctions
 - Collaboration w/ Contractors
 - Straight Bid Process
- **Timing of RFP release**

Schedule

Chris Greene, PE
Senior Principal
Geosyntec Consultants, Inc.



- **Data needs to support the design**
 - Remedial investigation
 - Pre-design investigation
 - Pre-construction conditions
- **Design Approaches**
 - Phases (e.g., Basis of Design, 30%, 60%, 90%, etc.)
 - Performance vs. prescriptive designs
 - Contractor input
- **Competition and contractor backlog**
- **Regulatory process and input**
 - Multi-agency input and review times
 - Conflicting regulatory requirements and objectives
 - Changing regulatory requirements (e.g., emerging contaminants)
 - Fish windows/endangered species/birds
- **Project cash flow**

Risk Management

Paul LaRosa, PE
Principal Engineer
Anchor QEA



- **Who should own it?**
 - Contractor or Owner
 - Public vs. private
- **Cost certainty vs. lowest cost bid**
- **Differences between a PRP group and single party**
 - Balancing differing objectives
 - Balancing different tolerances for risk
 - Process for decision making

Contractor Involvement

Greg Smith
Vice President
J.F. Brennan Company, Inc.



- **How and at what point?**
 - Constructability reviews vs. Design-Build
 - Cost review
- **The need for and value of pre-qualification**
- **Did the contractor see the plans, specs, or just figures?**
- **Design specifications: what is really needed, and what drives cost?**
- **Conflict of interest with design assistance before all contractors bid**

Industry Capacity

Steve Shaw
Corporate Project Manager/Estimator
Sevenson Environmental Services, Inc.



“The effects on a Niche Sector”

- **Experience Matters**
- **Staffing**
- **Equipment**
- **Owners Engineer designing this type of work**
- **Regulatory experience**
- **Timing of work**

Regulatory Drivers

Scott Cieniawski
Section Supervisor

U.S. EPA – Great Lakes National Program Office



- **Adaptive management: using lessons learned to improve protectiveness and cost-effectiveness**
- **Trust and willingness to give a little bit**
- **Flexibility**
- **How does the contractor develop the costs?**
- **Environmental drivers**
 - Fish windows / Birds / Endangered species
 - Is it an emergency?
 - It's been there for 100 years

Closing

- **Recommendations/Thoughts?**
 - Develop a detailed basis for design
 - Stakeholder engagement throughout the design phases
 - Considerations for contractor involvement during design
 - Prequalification of designers/contractors
 - Procurement involvement