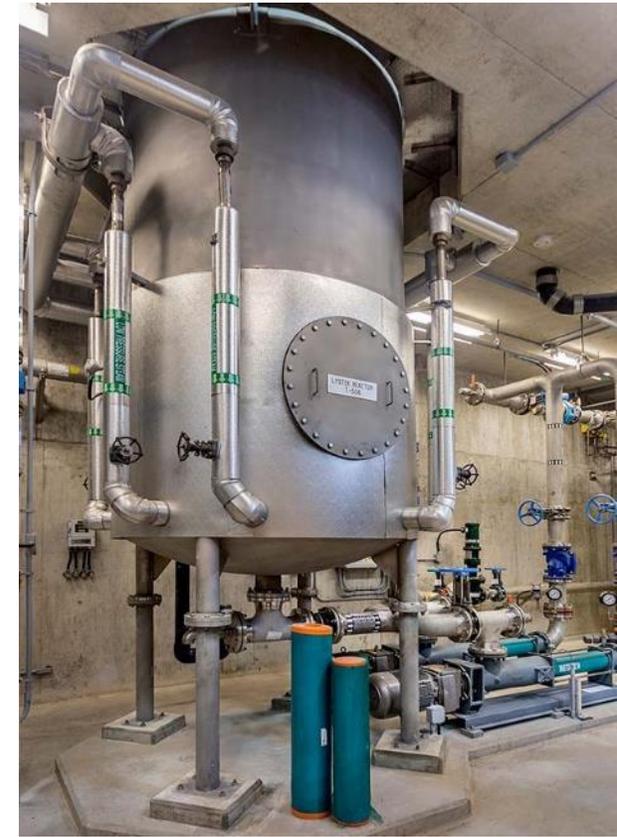




**Regional Biosolids
Solutions are TOUGH!**

**...But They Can Work
if Done Correctly**

November 1, 2023



**Regional Biosolids Solutions are TOUGH!
... But They Can Work if Done Correctly**

A CASE STUDY REVIEW

**Northeast Residuals & Biosolids
Conference 2023**

Portsmouth, New Hampshire



Presented By:

JAMES DUNBAR, M.B.A., P.E.

General Manager, Fairfield OMRC
Business Development Manager
LYSTEK INTERNATIONAL

Jim's career has been dedicated to managing, treating, and recovering waste byproducts in North America and Europe.

E: jdunbar@lystek.com

C: 707-419--0084



In Concept...it sounds **SO** simple!



BUT...who is going to own the Facility?



GOVERNMENT

...*City, County, JPA, Chartered Authority*

PRIVATE

...*Technology provider, Developer*

PUBLIC-PRIVATE-PARTNERSHIP

...*Legal framework*

AND...who is going to pay for the Facility?



GOVERNMENT...Bonds, General Funds, Rate Payers, Loans (SRF), Reserves

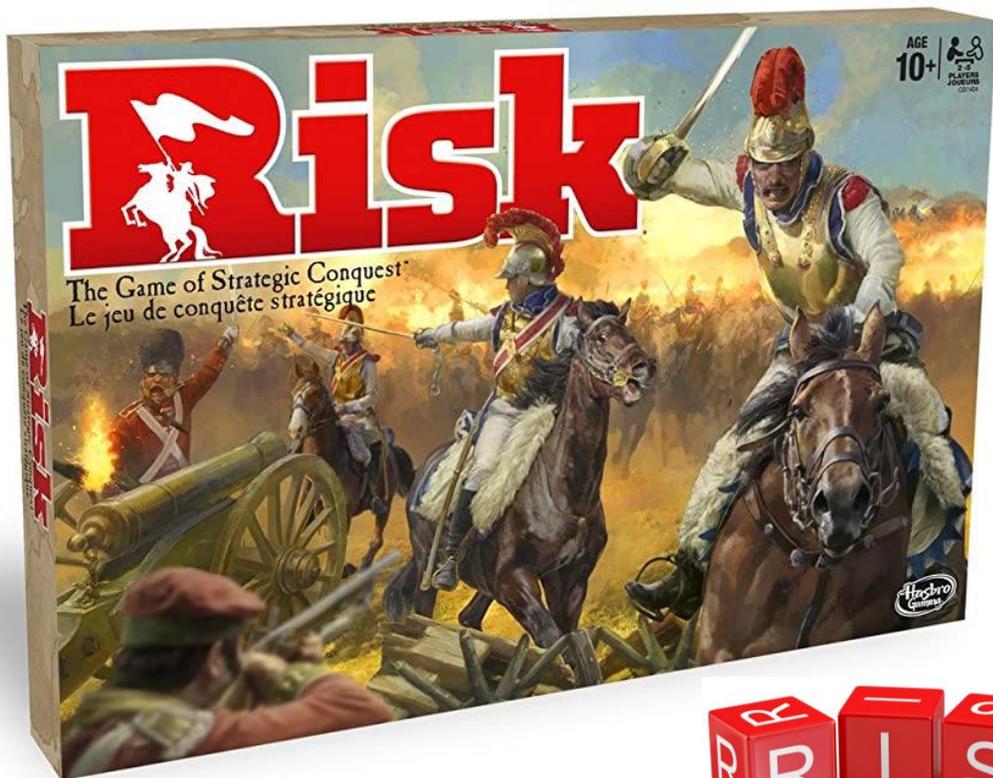
PRIVATE

...Debt Financing, Loans, VC

PUBLIC-PRIVATE-PARTNERSHIP

...Combination of Above

AND...who is taking the risk of success/failure?



GOVERNMENT

... VERY risk adverse, difficult to share

PRIVATE

... Technology provider, Developer

PUBLIC-PRIVATE-PARTNERSHIP

... Usually shared by contract



AND...who is going to make money from the facility?



GOVERNMENT

... Not likely to “make” money



PRIVATE

... Developer, contract operator



PUBLIC-PRIVATE-PARTNERSHIP

... Shared revenues





What does a Regional Project Look Like?

Two traditional models:

- Fixed capacity for the partner entities
- Merchant plant

There are hybrid forms, but they are not as common

Regional Biosolids Solutions

Fixed Capacity:

- Usually, a **JPA** or **Authority** framework
 - Location jointly owned or co-located at one site
 - Fixed capacity allocations and pricing
 - Long term contracts
 - Shared expenses



Regional Biosolids Solutions

Merchant Plant:

- Usually privately owned, maybe a P3
- Design capacity not allocated to customers
- Built on speculation or an anchor customer
- Multi-term contracts; variable pricing
- Contingency outlet



Merchant Plant Case Studies:



Speculation Built Facility in Eastern Canada

P3 Format in California



Regional Biosolids Solutions

Speculation built facility in Eastern Canada:

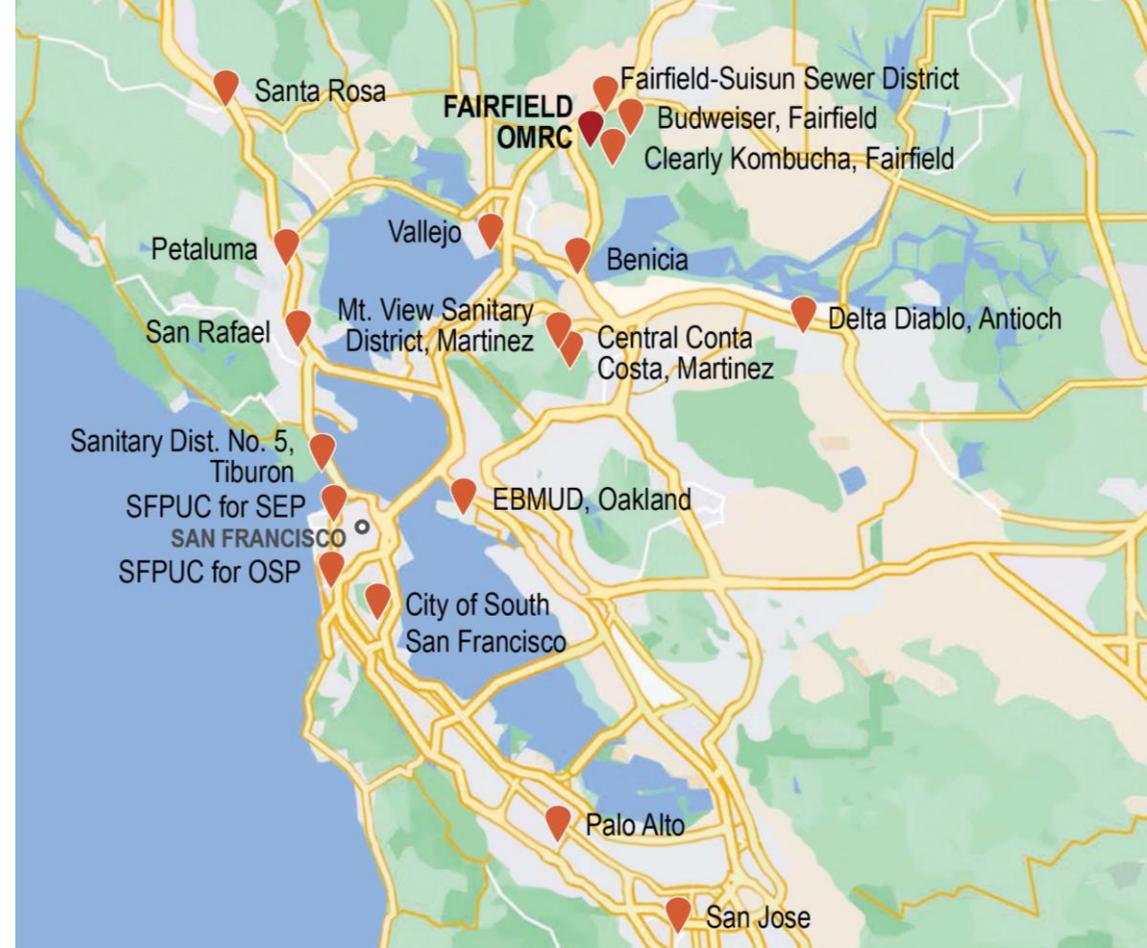
- Built to service the Greater Toronto Area
- No fixed contracts
- Greenfield site; privately funded
- Started with a few short-term contracts
- Currently managing about 100,000 wet tons/year (and about 17 unique customers)



Regional Biosolids Solutions

P3 built facility in Northern California:

- Built to service the Greater San Francisco Area
- Co-located at a WWTP; anchor tenant (25-year)
- Started as a diversification site for area WWTPs
- New laws/regs on organic diversion; primary outlet and contingency site
- Gate pricing has increased overall area prices



Regional Biosolids Solutions

Summary

- No formula for success

Regional Biosolids Solutions

Summary

- No formula for success
- Risk and commitment biggest obstacles



SUCCESS

Regional Biosolids Solutions

Summary

- No formula for success
- Risk and commitment biggest obstacles
- Technology has to work for everyone; flexibility



Regional Biosolids Solutions

Summary

- No formula for success
- Risk and commitment biggest obstacles
- Technology has to work for everyone; flexibility
- Build within your means; funding is available





Thank you

lystek.com

Lystek 