# Climate Action Revenue Incentive Program (CARIP)

## REPLACEMENT PROGRAM NEEDED TO SUPPORT LOCAL GOVERNMENT CLIMATE ACTION

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Climate Action Committee, June 11, 2021

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# BACKGROUND

- BC Climate Action Charter (2007)
- Climate Action Revenue Incentive Program (2010)
    - Provincial-UBCM Green Communities Committee (GCC)
    - Carbon Neutral Framework for Local Governments
    - Carbon tax refund – consistent, flexible climate action funding
- Metro Vancouver corporate carbon neutrality: 2015, 2019
- Cancellation of CARIP announced in May 2021

# CARIP USE AND IMPACT IN BC

May 2021 Survey of 45 Local Governments by Community Energy Association

CARIP:

- Supported many *CleanBC* implementation actions
- High leverage of other funds
- Supported internal climate action staff capacity
- Reporting created valuable public data; best practices
- Consistency enabled multi-year planning
- Low grant amounts to small local governments

# IMPACT TO METRO VANCOUVER CLIMATE ACTION

Projects and Staff supported by CARIP

- Metro Vancouver CARIP funding 2019: ~$217,000
- Examples of projects/staff supported by CARIP:
  - Electric vehicle outreach programs (e.g., Emotive)
  - Modelling a Carbon Neutral Region
  - Carbon credits from Burns Bog restoration, park land acquisition
  - Development of Building Energy and Emissions Benchmarking and Performance Standard
  - Partial funding for a staff position to develop the Energy Roadmap

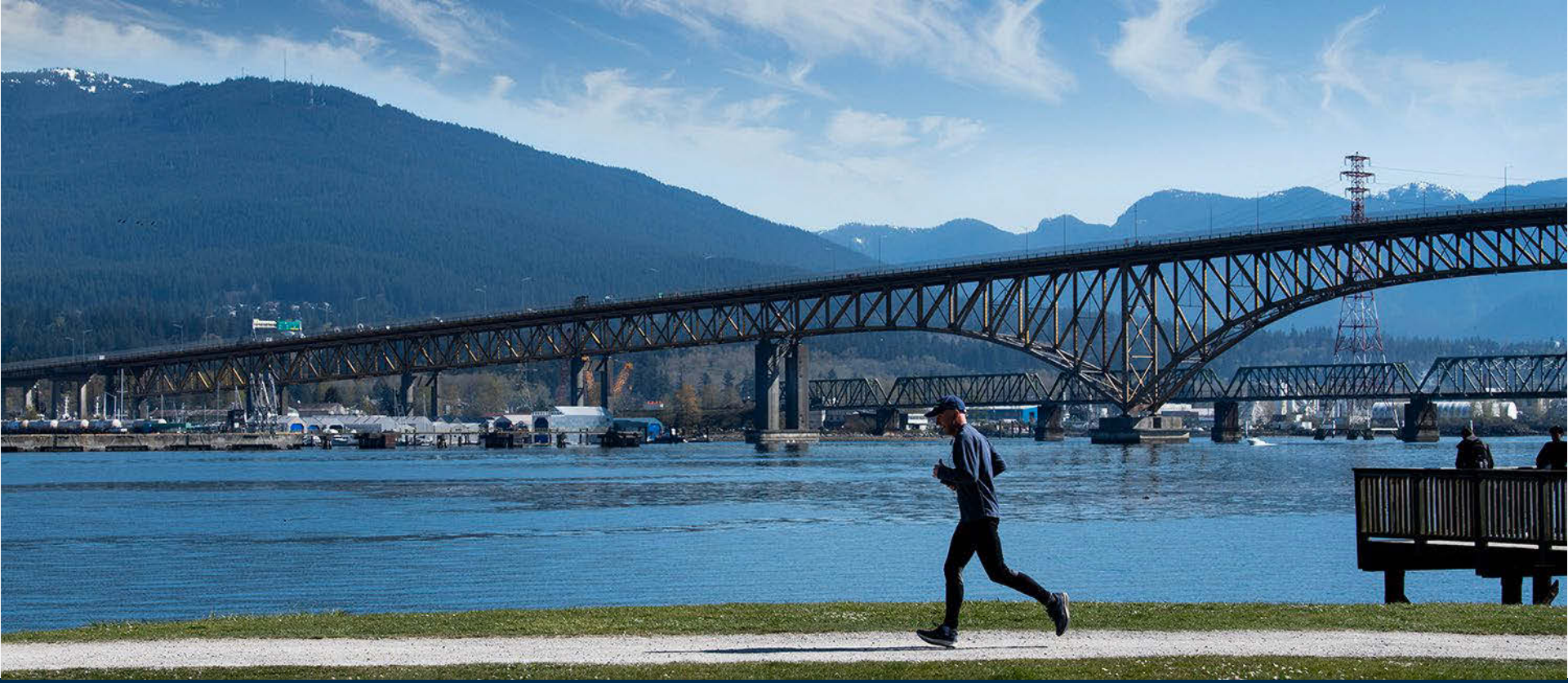
# RECOMMENDATIONS FOR REPLACEMENT PROGRAM

Local Governments are Strong Partners in Meeting *CleanBC* Targets

- **Act with urgency: avoid funding gap for local government climate action in 2022**
- Consistent, flexible funding (not application-based)
- Decouple funding from level of GHG emissions
- Sufficient resources for smaller communities
- Streamline and update reporting process
- Prioritize community emissions reductions programs

# CONCLUSIONS

- Climate action by local governments critical to help BC meet its *CleanBC* goals
- Unexpected cancellation of CARIP program puts local government climate action at risk
- Funding used for critical staffing, program development and implementation
- Urgent need for replacement program that provides consistent, flexible funding that is scaled to the task.



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Open-Air Burn in Richmond

# Proposals to Manage Emissions from Open-Air Burning

## BYLAW DEVELOPMENT CONSULTATION

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Climate Action Committee, June 11, 2021
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# OVERVIEW

- Bylaw development process
- Current situation
- Scope of proposals
- Proposed authorization process under a regulation
- Proposed requirements in emission regulation

# BYLAW DEVELOPMENT PROCESS

# CURRENT SITUATION

*BC Open Burning Smoke Control Regulation*

- Defines conditions and requirements for open-air burning of vegetative debris

*GVRD Air Quality Management Bylaw* (Bylaw 1082)

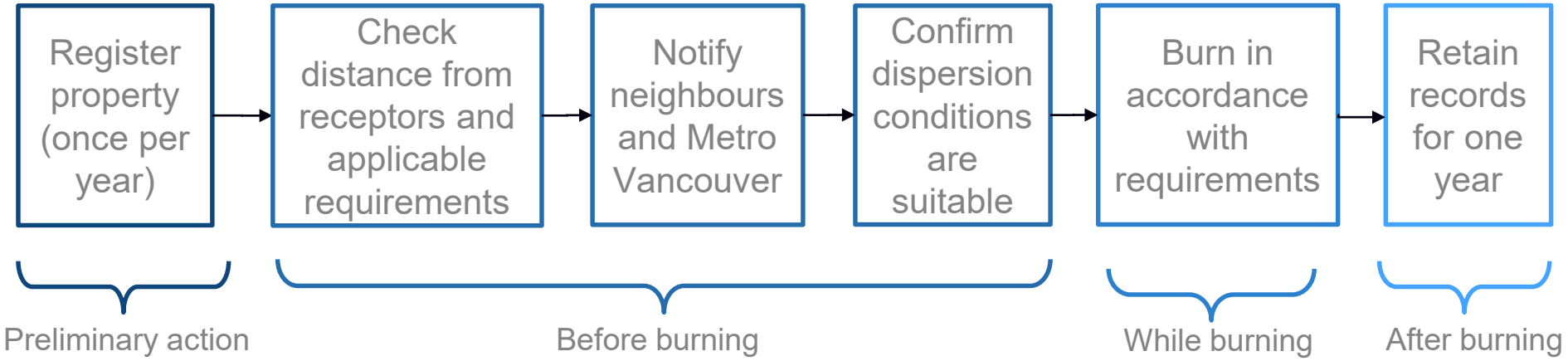
- Short-term approval or permit required for open-air burning in Metro Vancouver

# SCOPE OF PROPOSALS FOR EMISSION REGULATION

- Regulation would apply to open-air burning of vegetative debris
    - Agricultural burning
    - Backyard burning
    - Land clearing
    - Small forestry burns
- Approvals or permits would continue to be required for burns that cannot meet the requirements of the regulation

# PROPOSED AUTHORIZATION PROCESS

## Potential Regulation For Disposal of Vegetative Debris by Open-Air Burning



# PROPOSED REQUIREMENTS IN EMISSION REGULATION

## Before Burning

| Topic | Proposals for Phase 2 Consultation* | Comparison with BC Regulation** |
|---|---|---|
| Property registration | Annual registration<br>*Annual fees ($50-$250)* | Additional requirement |
| Notifying relevant parties | Notify neighbours and Metro Vancouver *at least 24 hours in advance* | More stringent |
| Smoke dispersion conditions | Check Metro Vancouver's open burning phone message, which will indicate if burning is allowed based on smoke dispersion conditions | More stringent |

*Adjustments after Phase 1 consultation shown in *italics*
**BC Open Burning Smoke Control Regulation

# PROPOSED REQUIREMENTS IN EMISSION REGULATION

## While Burning

| Topic | Proposals for Phase 2 Consultation* | Comparison with BC Regulation** |
|---|---|---|
| Minimizing and preparing material to be burned | *Defined "clean and seasoned" vegetative debris. Prohibiting burning of salt-laden wood.* | More stringent |
| Moving vegetative debris to be burned | Vegetative debris can be burned only on the site where it was generated | More stringent |
| Frequency and duration of open-air burning | Restrictions apply *to sites of all sizes* | More stringent |

*Adjustments after Phase 1 consultation shown in *italics*
**BC Open Burning Smoke Control Regulation

# PROPOSED PROTECTION BASED ON VULNERABILITY

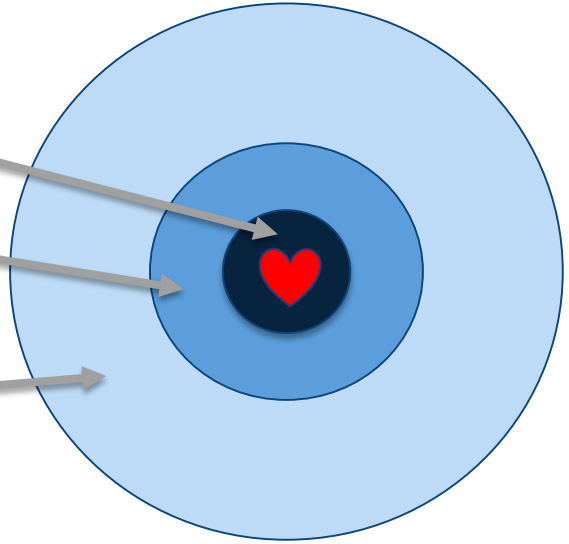
## Minimum Distances While Burning

**No open-air burning**
Most protection for sensitive receptors

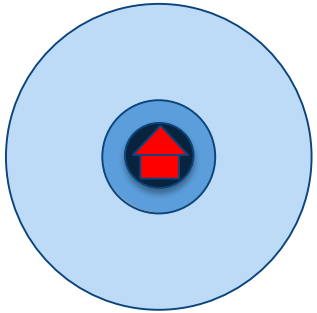
**Extremely restricted burning**
Exceptions only for wildfire management & diseased vegetative debris

**Restrictions on burning**
Burning limited to a duration of one day, and must be limited in size or use cleaner-burning technology

**General requirements**
Burning must comply with Metro Vancouver regulatory conditions



Around institutions
(hospitals, schools, daycares & care facilities)



Around residences & businesses

# PROPOSED REQUIREMENTS IN EMISSION REGULATION

## While Burning

| Topic | Proposals for Phase 2 Consultation* | Comparison with BC Regulation** |
|---|---|---|
| Minimum distances between burning and residences, businesses, institutional facilities | Allowances for burning within restricted area *if burning single pile of limited size in one day* | More stringent |
| Using air curtain technology | *Conditions for relaxation of smoke dispersion requirements. For single day burns, unlimited amounts of debris can be burned. Notification period reduced.* | Same |

*Adjustments after Phase 1 consultation shown in *italics*

**BC Open Burning Smoke Control Regulation

# PROPOSED REQUIREMENTS IN EMISSION REGULATION

After Burning

| Topic | Proposals for Phase 2 Consultation* | Comparison with BC Regulation** |
|---|---|---|
| Record keeping | *Record type of material burned, actions to minimize burning, rationale for burning, confirmation that material is seasoned.*<br><br>*Template or form will be provided.* | Additional information required |

*Adjustments after Phase 1 consultation shown in *italics*
**BC Open Burning Smoke Control Regulation

# PROPOSED REQUIREMENTS IN EMISSION REGULATION

## Special Circumstances

| Topic | Proposals for Phase 2 Consultation* | Comparison with BC Regulation** |
|---|---|---|
| Diseased vegetative debris | *Written confirmation of infestation from qualified professional*<br><br>*Burning needed to stop spread of disease* | Same |
| Community wildfire risk management | *Controlled burns for up to one day to reduce community wildfire risk*<br><br>*Must be attended at all times* | Same<br><br>Additional requirement |

*Adjustments after Phase 1 consultation shown in *italics*

**BC Open Burning Smoke Control Regulation

# PROPOSED REQUIREMENTS IN EMISSION REGULATION

## Special Circumstances

| Topic | Proposals for Phase 2 Consultation* | Comparison with BC Regulation** |
|---|---|---|
| Substituted requirements | *District Director may temporarily substitute requirements or prohibit activities that are normally allowed* | Same |

*Adjustments after Phase 1 consultation shown in *italics*
**BC Open Burning Smoke Control Regulation

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UBC's MCC Corrosion Resistance Pilot – Tilbury

# 2021 Update on Sustainability Innovation Fund Projects

## LIQUID WASTE SERVICES

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Climate Action Committee: June 11, 2021

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# SUSTAINABILITY INNOVATION FUNDS

- Reserve set up to fund projects "based on the principles of sustainability"
- Meet strategic objectives and pilot innovative ideas
- Review process underway

Circular Economy / Resource Recovery

Emissions Reduction

Environmental Protection

# MULTIPHASE COMPOSITE COATING

In Progress

Purpose:

- Sewer corrosion protection to extend life

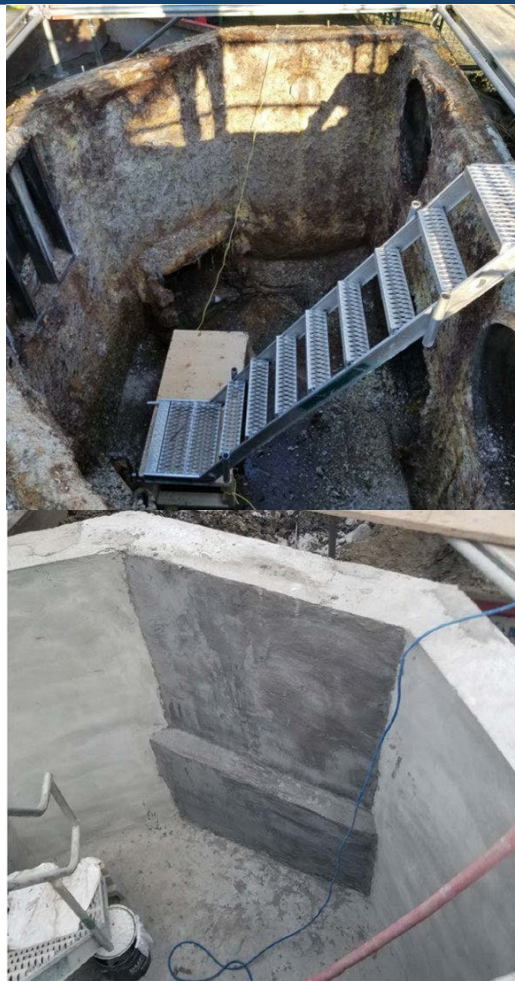
Technology:

- University of British Columbia

Milestone:

- In-situ evaluation installed

Metro Moment Video



# GENOMICS APPROACH TO ANAEROBIC DIGESTION

In Progress

Purpose:

- Increase renewable natural gas production

Progress:

- Patent-pending status

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
17 December 2020 (17.12.2020)

WIPO | PCT

(10) International Publication Number
WO 2020/250034 A1

# PROJECTS HIGHLY IMPACTED BY PANDEMIC

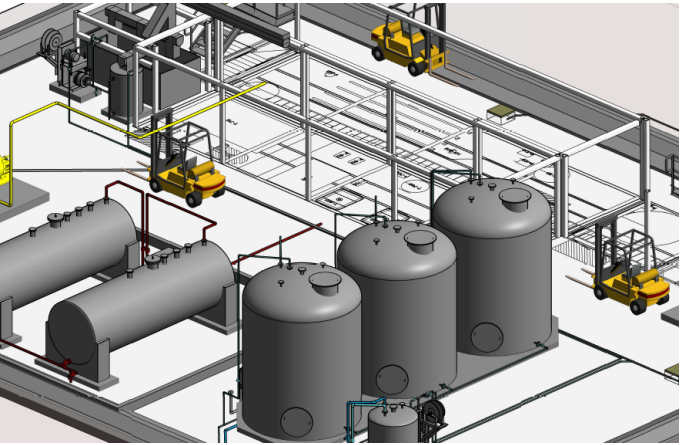
Limited Progress in 2020

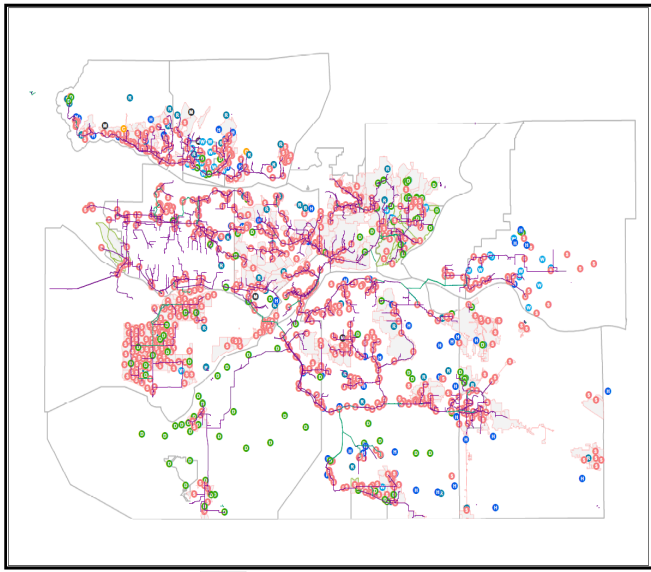
- High Efficiency Aeration
- Pump Station Optimization
- Advanced Resource Recovery from Sludge

# PROJECTS SLOWED BY PANDEMIC

## Slowed Progress

- Intelligent Water Systems
- Hydrothermal Processing
- Portable Wastewater Microbial DNA Monitor





# MICROWAVE ENHANCED ADVANCED OXIDATION

Terminated

Purpose:

- Improve efficiency of anaerobic digestion process
- Increase renewable natural gas production

Phase 1 Results:

- Limited increase in renewable natural gas production
- High chemical use and operational costs

# CAPTURE OF CONTAMINANTS OF CONCERN

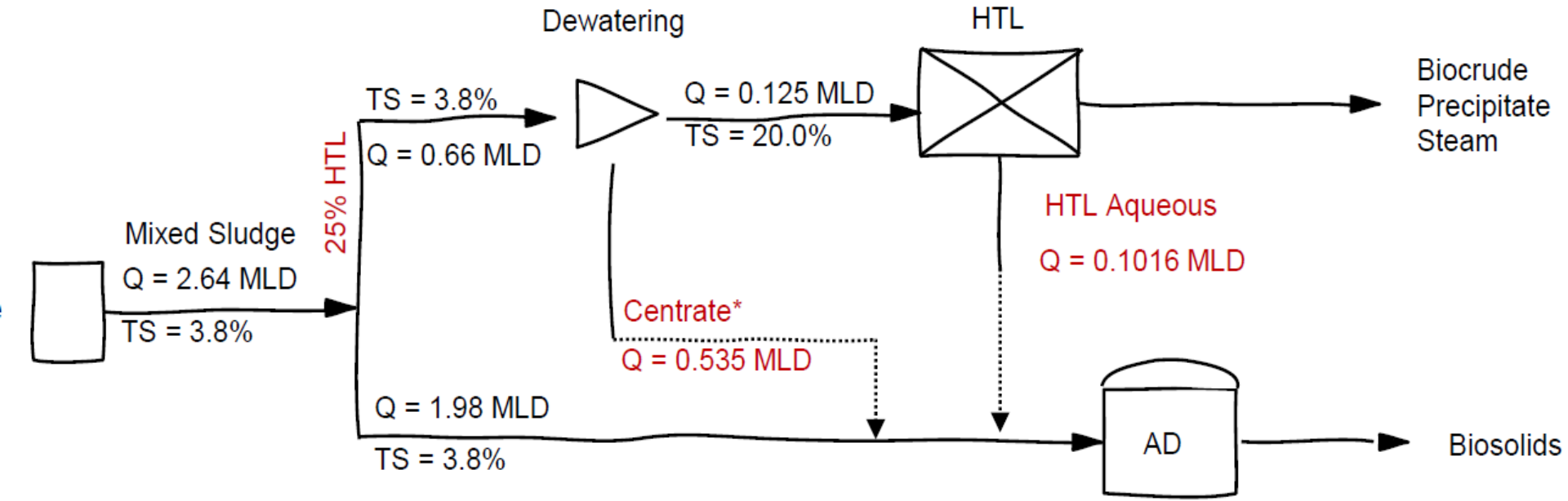
Terminated

Purpose:

- Alternative for biosolids beneficial use
- Use carbonized biosolids to capture contaminants

Phase 1 Results:

- Technically feasible
- Costs substantially more than current practice




Ideation – Future Wastewater Treatment Process Scenario

# Questions?

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