# Winooski River Basin Water Quality Council Meeting

March 16, 2023

# Agenda

| | |
|---|---|
| **1:00** | **Call to order & Roll call** |
| 1:05 | Updates to agenda |
| 1:10 | Public Comment |
| 1:15 | Review & approve minutes from February 16, 2023 meeting (action) |
| 1:25 | Project Scoring, Ranking & Prioritization |
| 2:15 | BWQC Meeting Schedule (discussion) |
| 2:20 | Announcements (discussion) |
| 2:30 | Adjourn |

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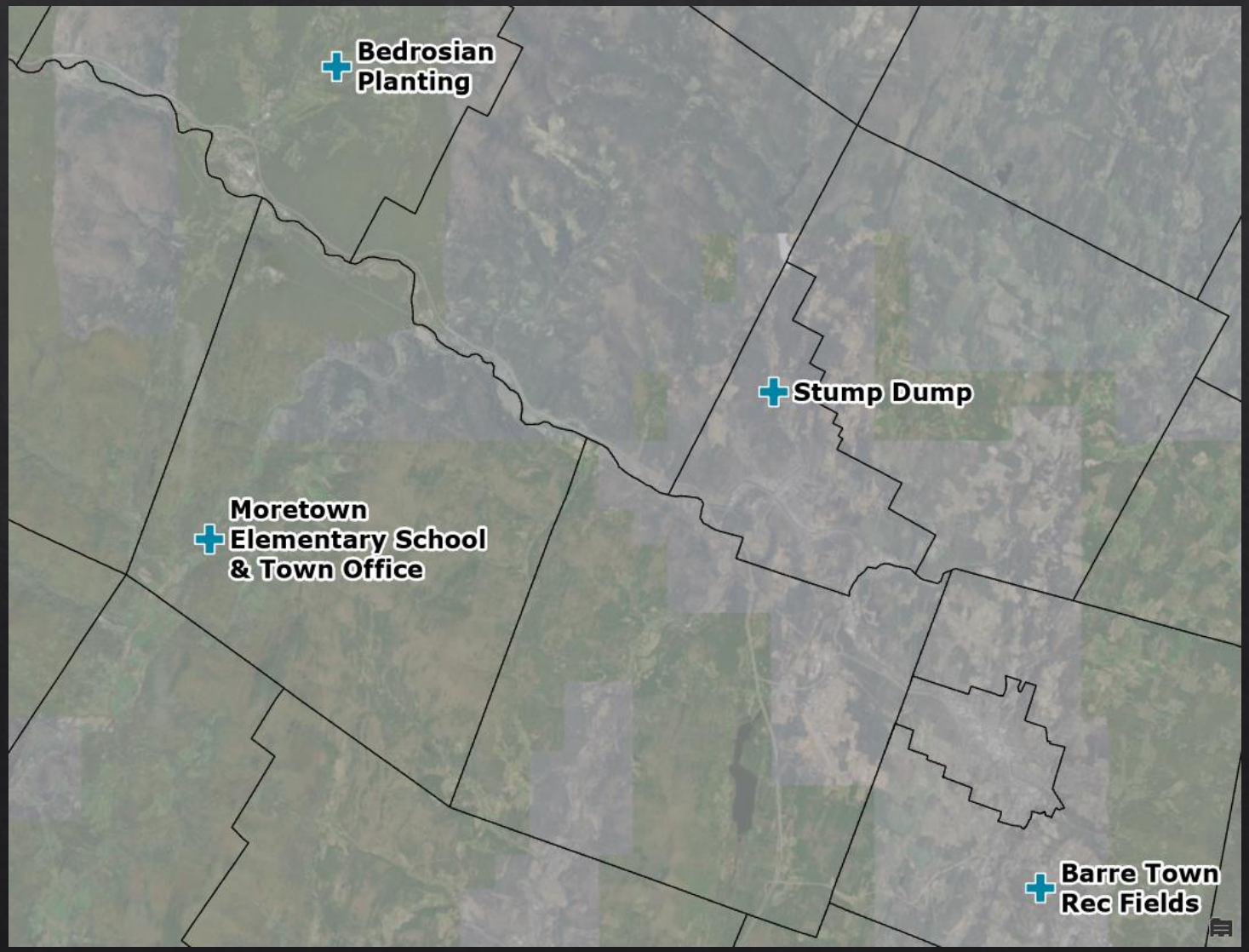
# Project “Proposals”



# Project Scoring

| Factor | Points | Description |
|---|---|---|
| P-reduction efficiency | 75 | Sliding scale: Ratio of proposed cost to overall p-reduction |
| Project risk | 10 | 2.5 points each: landowner relations, organizational capacity, O & M, permitting |
| Design life | 5 | For projects with design life > 15 years |
| Co-Benefits | 10 | According to adopted methodology |

**P-reduction Efficiency + Project Risk + Design Life + Co-benefits = Total Project Score**

# P-Reduction Efficiency

- Annual funding: $1,040,947
- P-reduction target: 69.6 kg
- Cost / kg P reduction: $14,953

| Price / kg P ($) | Implementation | Design |
|---|---|---|
| < 7,500 | 75 | 37.5 |
| 7,500 – 10,000 | 65 | 32.5 |
| 10,000 – 12,500 | 55 | 27.5 |
| 12,500 – 15,000 | 45 | 22.5 |
| 15,000 – 17,500 | 35 | 17.5 |
| 17,500 – 20,000 | 25 | 12.5 |
| 20,000 – 25,000 | 15 | 7.5 |
| 25,000 – 30,000 | 5 | 2.5 |
| > 30,000 | 0 | 0 |

# Water Quality Restoration Formula Grant Target and Fund Allocation Methodology

Table 3. Clean water project categories' estimated design/engineering (if applicable) and construction costs per total phosphorus load reduction (kg/yr) averaged to estimate "cost rate" per non-regulatory target land use sector.

| Non-regulatory target land use sector | Clean water project categories representing costs of implementing non-regulatory targets | Estimated design/engineering (if applicable) and construction cost per total phosphorus load reduction ($/kg/yr) |
|---|---|---|
| Streams* | Floodplain/stream restoration† | $16,647 |
| | River corridor easement | $10,041 |
| | Riparian buffer restoration‡ | $5,116 |
| | STREAMS SECTOR AVERAGE COST RATE | $10,601 |
| Developed | Stormwater best management practices (BMPs) | $46,026 |
| | Non-regulatory road BMPs | $3,153 |
| | Riparian buffer restoration‡ | $5,116 |
| | Lake shoreline restoration§ | $8,333 |
| | Lake shoreland runoff treatment | $16,482 |
| | DEVELOPED SECTOR AVERAGE COST RATE | $15,822 |
| Farm field†† | Riparian buffer restoration‡ | $5,116 |
| | Lake shoreline restoration§ | $8,333 |
| | FARM FIELD SECTOR AVERAGE COST RATE | $6,725 |
| Forest‡‡ | Non-regulatory forest road BMPs | $15,245 |
| | Riparian buffer restoration‡ | $5,116 |
| | Lake shoreline restoration§ | $8,333 |
| | FOREST SECTOR AVERAGE COST RATE | $9,565 |

# Project Scoring

| Factor | Points | Description |
|---|---|---|
| P-reduction efficiency | 75 | Sliding scale: Ratio of proposed cost to overall p-reduction |
| Project risk | 10 | 2.5 points each: landowner relations, organizational capacity, O & M, permitting |
| Design life | 5 | For projects with design life > 15 years |
| Co-Benefits | 10 | According to adopted methodology |

**P-reduction Efficiency + Project Risk + Design Life + Co-benefits = Total Project Score**

# Co-Benefit Scoring Examples: Computing the Co-Benefit Score

## Project 1

| Co-Benefit | CWSP Score | BWQC Weight | Project Score |
|---|---|---|---|
| Environmental Justice | 0 | 33% | 0 |
| Ecological Benefits | 7 | 30% | 2.1 |
| Ecosystem Services | 10 | 15% | 1.5 |
| Community Building | 6 | 17% | 1.02 |
| Education | 10 | 5% | 0.5 |
| | Total Score | | 5.12 |

## Project 2

| Co-Benefit | CWSP Score | BWQC Weight | Project Score |
|---|---|---|---|
| Environmental Justice | 7 | 33% | 2.31 |
| Ecological Benefits | 2 | 30% | 0.6 |
| Ecosystem Services | 5 | 15% | 0.75 |
| Community Building | 5 | 17% | 0.85 |
| Education | 5 | 5% | 0.25 |
| | Total Score | | 4.76 |

# Bedrosian Riparian Planting

**Project Location:** -72.721167, 44.358989

**Project Type:** Riparian Planting

**Description:**

- 2.1-acre riparian buffer planting on the west side of Thatcher Brook would fill in and extend the existing buffer
- Enthusiastic landowners motivated by a desire to protect Thatcher Brook and improve habitat for wildlife

**Project Phase:** Implementation

**Total Cost:** $17,168

# Bedrosian Riparian Planting

**P-reduction Efficiency Score: 52 points**

- P-reduction: 1.32 kg / yr
- Total Cost: $17,168
- Cost / kg P-reduction: $13,006

**Project Risk Score: 10 points**

- General: Reed canary grass and goldenrod is very thick and will need clearing during the first year or two in order for the planting to be successful
- Land Ownership: Private, but as noted above, landowner is motivated (2.5 points)
- Organizational Capacity: High (2.5 points)
- O & M: Yes (2.5 points)
- Permitting: N/A (2.5 points)

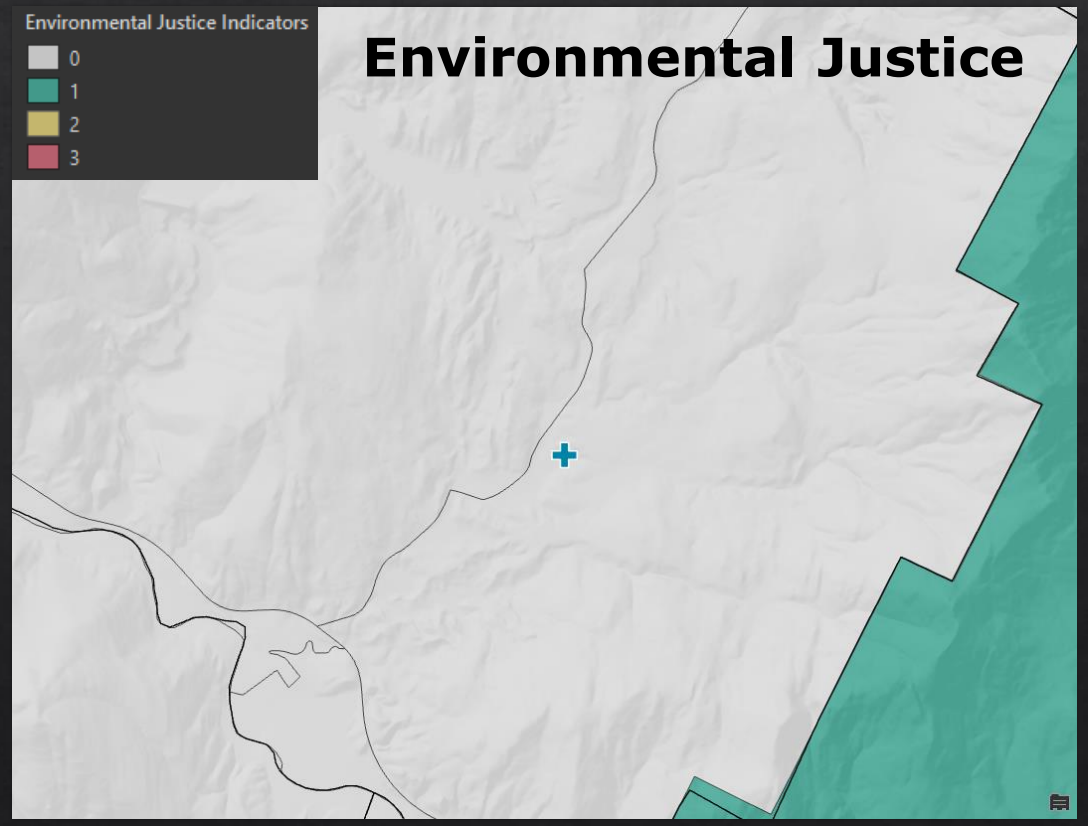
# Bedrosian Riparian Planting

**Design Life Score: 5**

- Design life: 15+ years

**Co-benefits Score:**

- Environmental Justice: 0 * 33% = 0



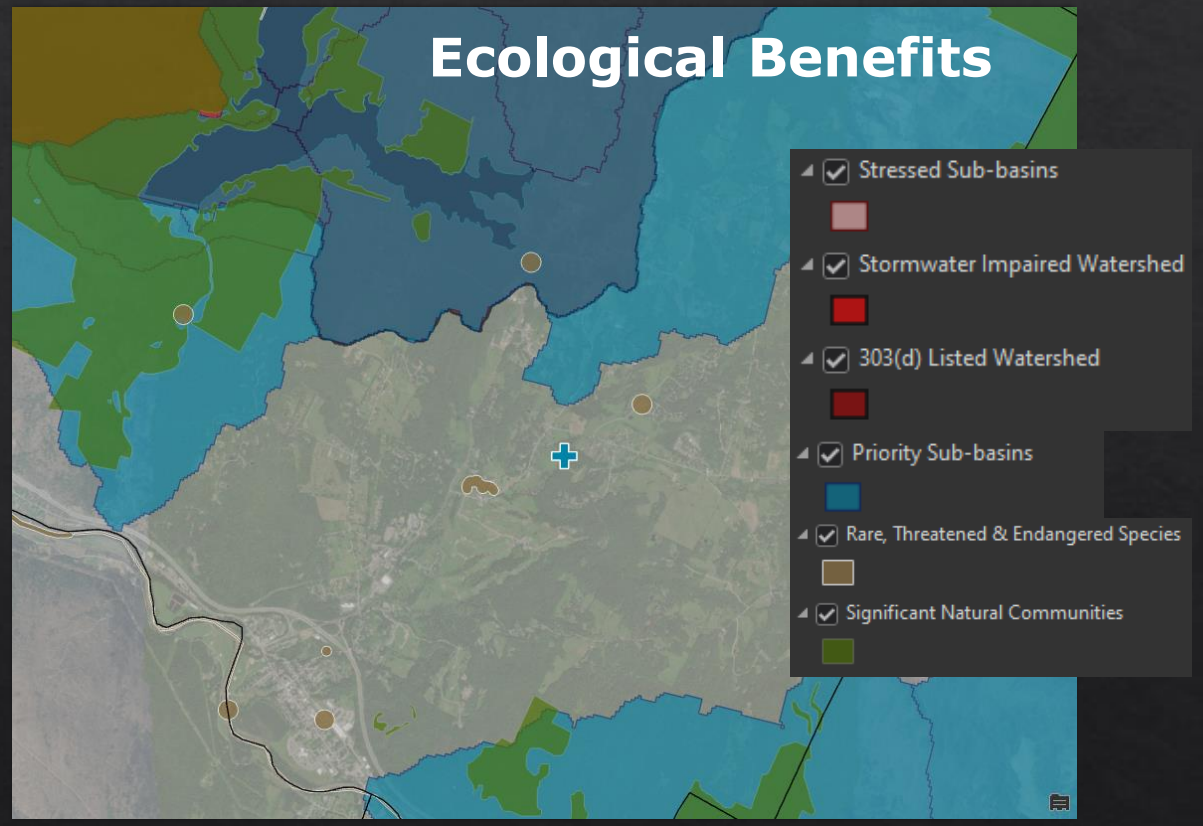
# Bedrosian Riparian Planting

**Design Life Score: 5**

- Design life: 15+ years

**Co-benefits Score:**

- Environmental Justice: 0 * 33% = 0
- Ecological Benefits: 0 * 30% = 0



# Bedrosian Riparian Planting

**P-reduction Efficiency Score: 52 points**

- P-reduction: 1.32 kg / yr
- Total Cost: $17,168
- Cost / kg P-reduction: $13,006

**Project Risk Score: 10 points**

**Design Life Score: 5**

- Design life: 15+ years

**Co-benefits Score: 1.47 points**

- Environmental Justice: 0 * 33% = 0
- Ecological Benefits: 0 * 30% = 0
- Ecosystem Services: 7.5 * 15% = 1.13
- Community Building: 2 * 17% = 0.34
- Education: 0 * 5% = 0

**Total Project Score: 52 + 10 + 5 + 1.47 = 68.47**

# Montpelier Stump Dump

**Project Location:** -72.57749, 44.28237

**Project Type:** Stormwater

**Description:**

- City of Montpelier owns a 27-acre “stump dump” for storage of bulk construction and maintenance materials, as well as disposal of inert or organic waste materials, by both the City and residents
- Investigation identified one such area where flow from two drainages constituting 12 acres of the site could be intercepted and treated prior to reaching the tributary to the North Branch

**Project Phase:** Final Design

**Total Cost:** $46,928

# Montpelier Stump Dump

**P-reduction Efficiency Score: 37.5 points**

- P-reduction: 6.8 kg / yr
- Total Cost: $46,928
- Cost / kg P-reduction: $6,901

**Project Risk Score: 8 points**

- Land Ownership: Public (2.5 points)
- Organizational Capacity: High (2.5 points)
- O & M: Yes (1.5 points)
- Permitting: May require wetlands permit (1.5 points)

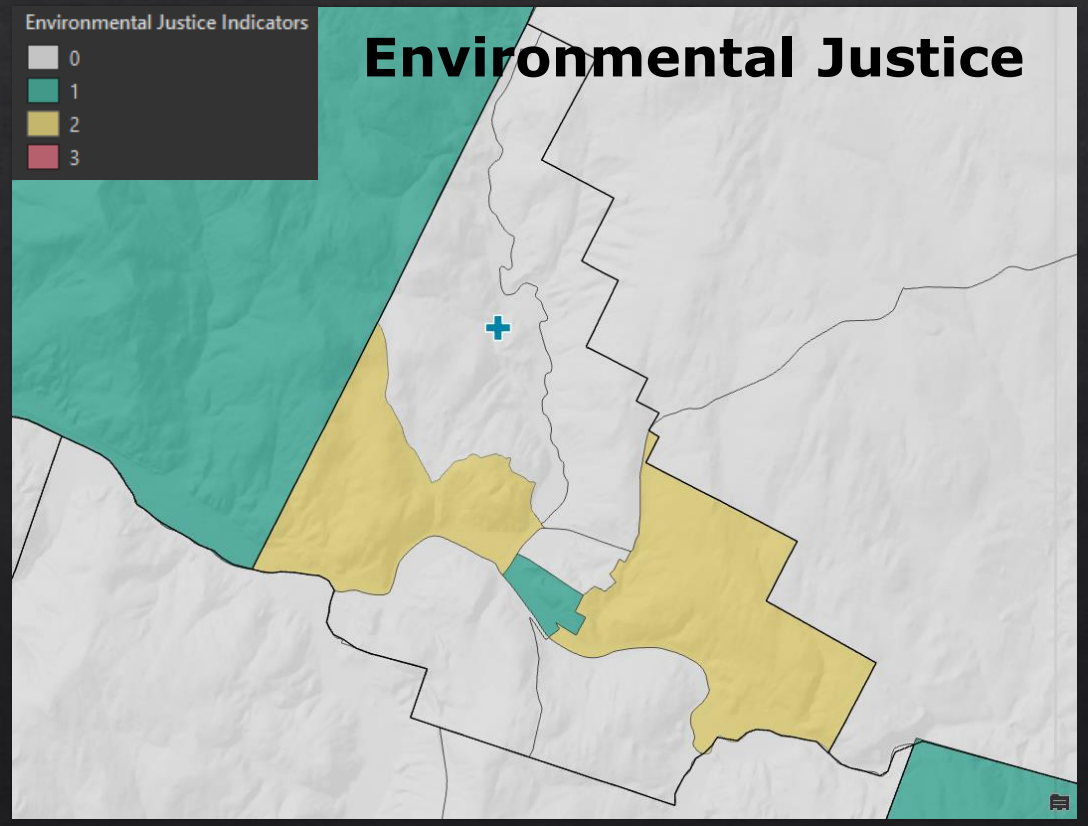
# Montpelier Stump Dump

**Design Life Score: 0**

- Design life: 15 years

**Co-benefits Score:**

- Environmental Justice: 0 * 33% = 0



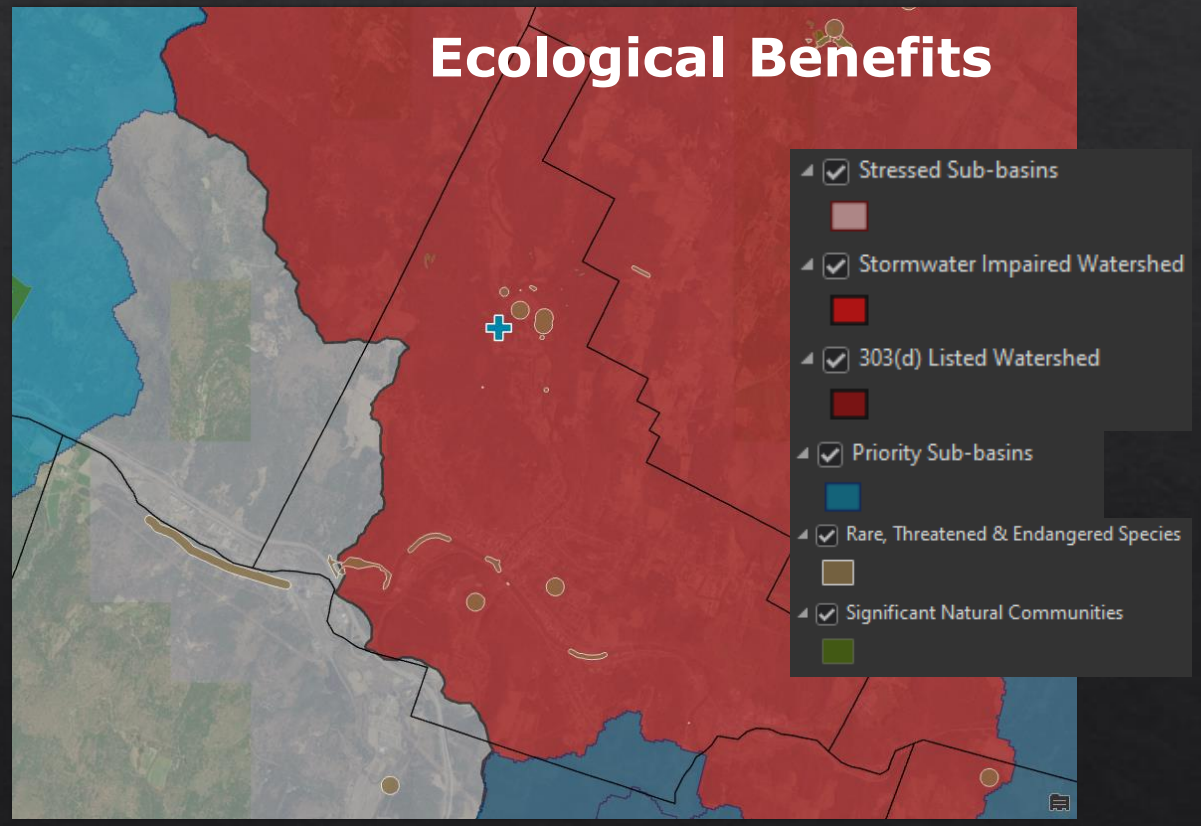
# Montpelier Stump Dump

**Design Life Score: 0**

- Design life: 15 years

**Co-benefits Score:**

- Environmental Justice: 0 * 33% = 0
- Ecological Benefits: 3 * 30% = 0.9



# Montpelier Stump Dump

**P-reduction Efficiency Score: 37.5 points**

- P-reduction: 6.8 kg / yr
- Total Cost: $46,928
- Cost / kg P-reduction: $6,901

**Project Risk Score: 8 points**

**Design Life Score: 0**

- Design life: 15 years

**Co-benefits Score: 1.37 points**

- Environmental Justice: 0 * 33% = 0
- Ecological Benefits: 3 * 30% = 0.9
- Ecosystem Services: 0 * 15% = 0
- Community Building: 2 * 17% = 0.34
- Education: 2.5 * 5% = 0.125

**Total Project Score: 37.5 + 8 + 0 + 1.37 = 46.87**

# Barre Town Recreation Fields

**Project Location:** -72.49073, 44.16605

**Project Type:** Stormwater

**Description:**

- Recreation Fields drain into a swale at the back of St. Sylvester's Cemetery, and the outflow from the swale is causing severe erosion of Town-owned land adjacent to the Cemetery, causing sediment to fill in a wetland, and convey to the Stevens Branch of the Winooski River

**Project Phase:** Implementation

**Total Cost:** $179,456

# Barre Town Recreation Fields

**P-reduction Efficiency Score: 17 points**

- P-reduction: 8.6 kg / yr
- Total Cost: $179,456
- Cost / kg P-reduction: $20,867

**Project Risk Score: 7.25 points**

- Land Ownership: requires easement transfer (1.25 points)
- Organizational Capacity: High (2.5 points)
- O & M: Yes (2.5 points)
- Permitting: requires an Act 250 Administrative Amendment, a Stormwater General Permit, and a local zoning permit (1 points)

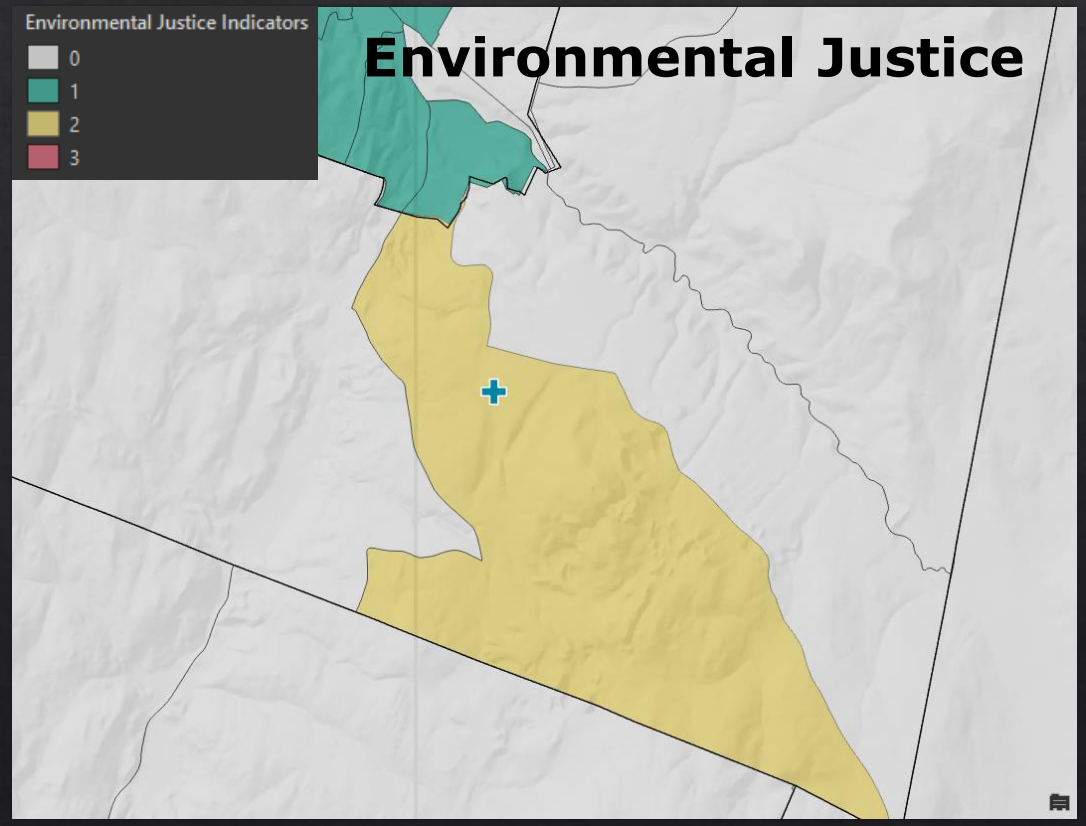
# Barre Town Recreation Fields

**Design Life Score: 0**

- Design life: 15 years

**Co-benefits Score:**

- Environmental Justice: 2 * 33% = 0.66



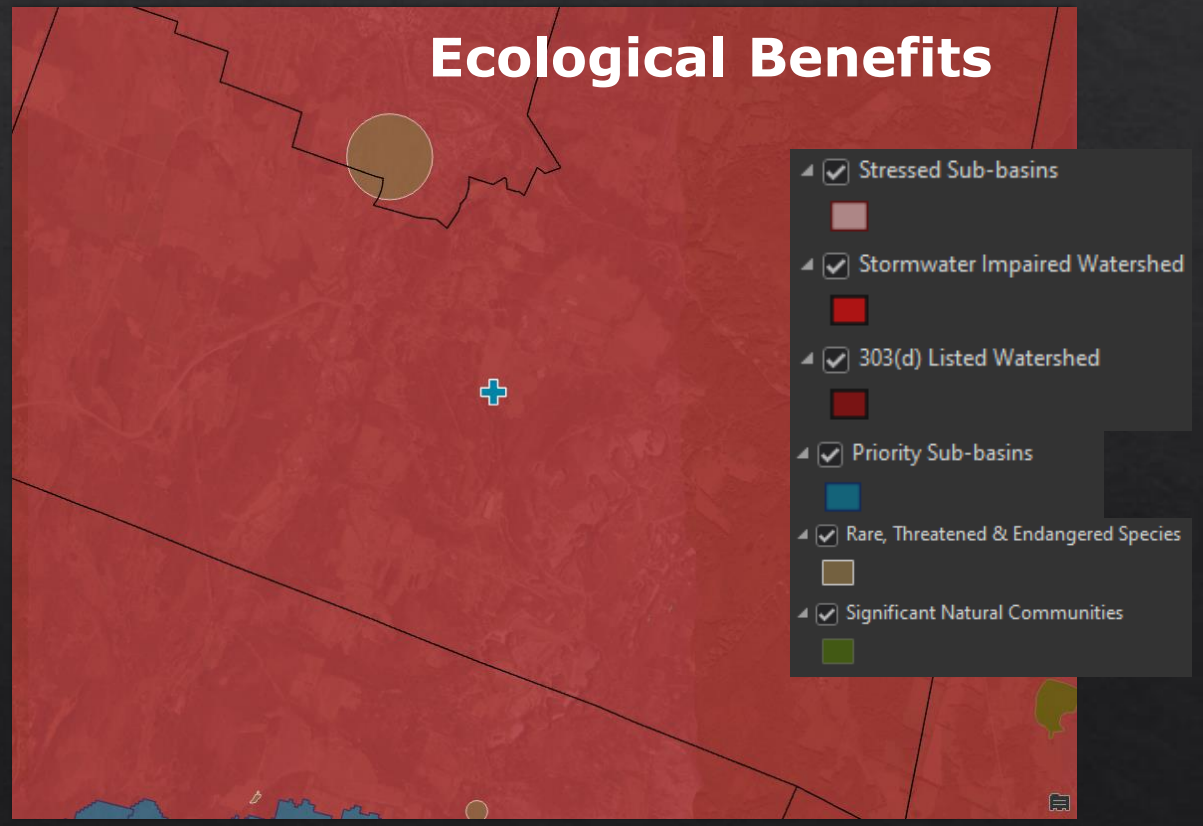
# Barre Town Recreation Fields

**Design Life Score: 0**

- Design life: 15 years

**Co-benefits Score:**

- Environmental Justice: 2 * 33% = 0.66
- Ecological Benefits: 3 * 30% = 0.9



# Barre Town Recreation Fields

**P-reduction Efficiency Score: 37.5 points**

- P-reduction: 8.6 kg / yr
- Total Cost: $179,456
- Cost / kg P-reduction: $20,867

**Project Risk Score: 7.25 points**

**Design Life Score: 0**

- Design life: 15 years

**Co-benefits Score: 3.24 points**

- Environmental Justice: 2 * 33% = 0.66
- Ecological Benefits: 3 * 30% = 0.9
- Ecosystem Services: 5 * 15% = 0.75
- Community Building: 4 * 17% = 0.68
- Education: 5 * 5% = 0.25

**Total Project Score: 37.5 + 7.25 + 0 + 3.24 = 47.99**

# Moretown Elementary School & Town Office

**Project Location:** -72.7621184, 44.2481933

**Project Type:** Stormwater

**Description:**

- Hill behind school directs water towards its foundation where it accumulates
- Poor parking lot condition: significant ponding, puddling, rutting, and erosion
- Most stormwater from this site is collected and discharged into the Mad River without any treatment

**Project Phase:** Implementation

**Total Cost:** $333,698

# Moretown Elementary School & Town Office

**P-reduction Efficiency Score: 0 points**

- P-reduction: 2.3 kg / yr
- Total Cost: $333,698
- Cost / kg P-reduction: $145,086

**Project Risk Score: 10 points**

- Land Ownership: Public (2.5 points)
- Organizational Capacity: High (2.5 points)
- O & M: Yes (2.5 points)
- Permitting: permits have been acquired (2.5 points)

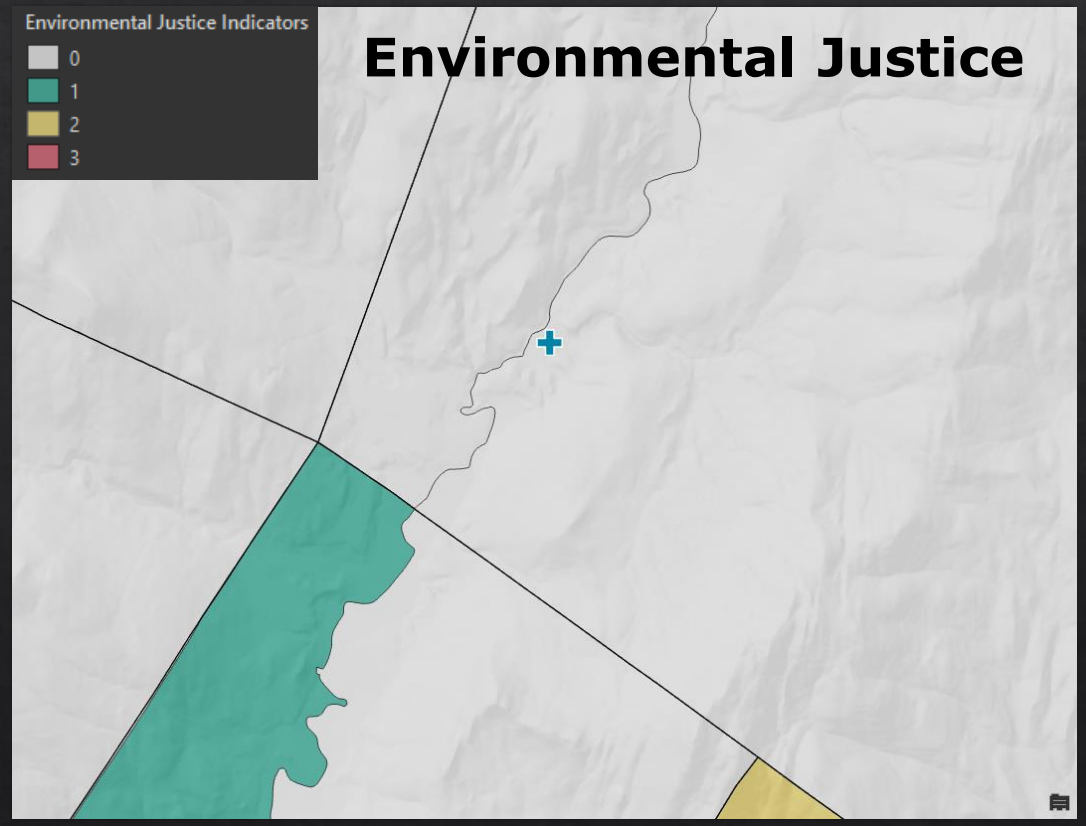
# Moretown Elementary School & Town Office

**Design Life Score: 0**

- Design life: 15 years

**Co-benefits Score:**

- Environmental Justice: 0 * 33% = 0



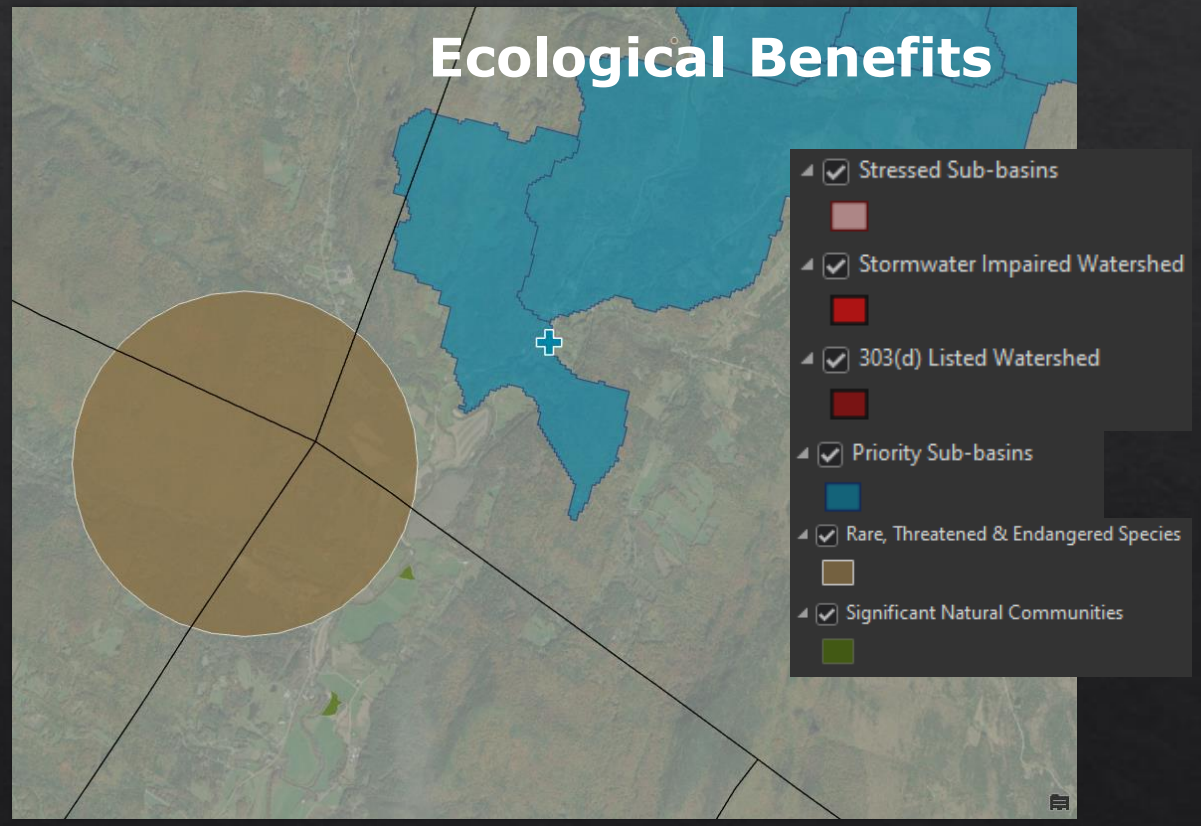
# Moretown Elementary School & Town Office

**Design Life Score: 0**

- Design life: 15 years

**Co-benefits Score:**

- Environmental Justice: 2 * 33% = 0.66
- Ecological Benefits: 3 * 30% = 0.9



# Moretown Elementary School & Town Office

**P-reduction Efficiency Score: 0 points**

- P-reduction: 2.3 kg / yr
- Total Cost: $179,456
- Cost / kg P-reduction: $145,086

**Project Risk Score: 10 points**

**Design Life Score: 0**

- Design life: 15 years

**Co-benefits Score: 2.58 points**

- Environmental Justice: 0 * 33% = 0
- Ecological Benefits: 3 * 30% = 0.9
- Ecosystem Services: 5 * 15% = 0.75
- Community Building: 4 * 17% = 0.68
- Education: 5 * 5% = 0.25

**Total Project Score: 0 + 10 + 0 + 2.58 = 12.58**

# Solicitation Round Summary

- Bedrosian Riparian Planting
  - Total Score: 68.47
  - Total Request: $17,168
  - Recommendation: fund request
- Montpelier Stump Dump
  - Total Score: 46.87
  - Total Request: $46,928
  - Recommendation: fund request
- Barre Town Recreation Fields
  - Total Score: 47.99
  - Total Request: $179,456
  - Recommendation: postpone funding decision until next grant round
- Moretown Elementary School & Town Office
  - Total Score: 12.58
  - Total Request: $333,698
  - Recommendation: do not fund

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# BWQC Meeting Schedule

- March 2023
  - Project scoring, ranking & prioritization exercise
- June 2023
  - Project ranking & prioritization for Round 1 Project Solicitation
- September 2023
  - Project ranking & prioritization for Round 2 Project Solicitation
  - Elect Chair & Vice-Chair
- December 2023
  - Project ranking & prioritization for Round 3 Project Solicitation
  - Year in review
    - Lessons learned
    - Revisit BWQC policies

**Question: Should we have a "short" meeting the month prior to each ranking & prioritization meeting to afford applicants an opportunity to respond to CWSP / BWQC questions?**

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| **2:30** | **Adjourn** |