Winooski River Basin Clean Water Service Provider

Date: 14 October 2024

To: Winooski Basin Water Quality Council

Re: Winooski Basin Clean Water Service Provider Staff recommendation for project prioritization & funding

This memo offers funding recommendations for the following four¹ proposals:

- 1. Friends of the Winooski River GMC & VTACT Riparian Buffer Planting
- 2. Friends of the Winooski River Graber Riparian Buffer Planting
- 3. Friends of the Winooski River SHO Riparian Buffer Planting
- Friends of the Winooski River Tyler Place Trib Riparian Buffer Planting

Project development proposals were evaluated on the likelihood of successfully identifying water quality restoration projects that can be advanced through implementation using Formula Grant funds. Design- and Implementation-phase proposals were evaluated using the following criteria: Cost effectiveness of phosphorous reduction (75 points), Project Risk (10 points), Design Life (5 points) and Co-benefits (10 points).

For a more detailed description of the Design- and Implementation-phase project proposal review process, refer to the <u>Co-benefits scoring</u> <u>methodology</u>, the March 2023 Clean Water Service Provider <u>presentation</u> to the Winooski Basin Water Quality Council and the <u>minutes</u> from that meeting. Assessment / Identification and Development-phase projects are scored according to their likelihood of success in identifying cost-efficient, non-regulatory water quality improvement projects in the Winooski Basin.

Funding Recommendations

1. Friends of the Winooski River – GMC & VTACT Riparian Buffer Planting: This proposal seeks funding to implement a riparian buffer planting on 2 acres in the Lower Little River Watershed (Waterbury). The landowner supports this project, but no Operations & Maintenance Plan has been signed. The expected phosphorous reduction for this project is

¹ NOTE: Friends of the Winooski River submitted five funding request proposals prior to the September 2025 meeting. One of the proposals (Kelly Riparian Buffer Planting) has been retracted due to a pending sale of the property.

1.5 kg / yr. At \$10,365 / kg p, this project is considered cost-efficient. The total project score of 72.65 is acceptable for an Implementation-phase project. **Recommendation: prioritize this funding request.**

Table 1-1: Cost-Effectiveness Score

| Criteria | Value | | |
|---|----------|--|--|
| Funding Request | \$15,548 | | |
| Future Funding Request | \$0 | | |
| Total Cost | \$15,548 | | |
| Phosphorous Reduction (kg / yr) | 1.5 | | |
| Design Life | 15 | | |
| Cost Effectiveness (\$ / kg) | \$10,365 | | |
| Cost-Effectiveness Score 5 | | | |
| | | | |
| Cost Effectiveness Formula (\$ / kg / yr) = ((15 years / project design life) * (Total Cost)) / (Phosphorous Reduction (kg / yr)) | | | |

Maximum Implementation-phase Cost-Effectiveness Score = 75 points

Table 1-2: Project Risk Score

| Risk Category | Points |
|--------------------------|--------|
| Landowner Relations | 2.5 |
| Organizational Capacity | 2.5 |
| Operations & Maintenance | 0 |
| Permitting | 2.5 |
| Total Score | 7.5 |

Table 1-3: Co-benefits Score

| Co-benefit | Score | Weight | Weighted Score |
|----------------------------------|-------|--------|----------------|
| Environmental Justice | 0 | 17.78% | 0 |
| Income | 0 | | |
| Race | 0 | | |
| Language | 0 | | |
| Ecological Benefits | 4.5 | 30.44% | 1.3698 |
| Listed / Impaired Water Resource | 3 | | |
| Priority Water Resource | 1.5 | | |
| Habitat & Species Enhancement | 0 | | |
| Ecosystem Services | 10 | 23.78% | 2.378 |
| Flood Regulation | 5 | | |
| Carbon Sequestration | 5 | | |
| Community Building | 5 | 15.78% | 0.789 |
| Community Involvement | 1 | | |
| Working Landscape | 0 | | |
| Recreation | 4 | | |
| Education | 5 | 12.22% | 0.611 |
| Interpretive Signage | 5 | | |
| Meetings & Workshops | 0 | | |
| Total Co-benefits Score 5.1478 | | | |

Table 1-4: Total Project Score

| Criteria | Score |
|--------------------------|--------|
| Cost-Effectiveness Score | 55 |
| Project Risk Score | 7.5 |
| Design Life Score | 5 |
| Co-benefits Score | 5.1478 |
| Total Project Score | 72.65 |

2. Friends of the Winooski River - Graber Riparian Buffer

Planting: This proposal seeks funding to implement a riparian buffer planting on 0.85 acres in the Winooski River Headwaters Watershed (Cabot). The landowner supports this project, but no Operations & Maintenance Plan has been signed. The expected phosphorous reduction for this project is 1.7 kg / yr. At \$6,562 / kg p, this project is considered cost-efficient. The total project score of 91.7 is high for an Implementation-phase project. **Recommendation: prioritize this funding request.**

Table 2-1: Cost-Effectiveness Score

| Criteria | Value | | |
|---|----------|--|--|
| Funding Request | \$11,155 | | |
| Future Funding Request | \$0 | | |
| Total Cost | \$11,155 | | |
| Phosphorous Reduction (kg / yr) | 1.7 | | |
| Design Life | 15 | | |
| Cost Effectiveness (\$ / kg) | \$6,562 | | |
| Cost-Effectiveness Score | 75 | | |
| | | | |
| Cost Effectiveness Formula (\$ / kg / yr) = ((15 years / project design life) * (Total Cost)) / (Phosphorous Reduction (kg / yr)) | | | |

Maximum Implementation-phase Cost-Effectiveness Score = 75 points

Table 2-2: Project Risk Score

| Risk Category | Points |
|--------------------------|--------|
| Landowner Relations | 2.5 |
| Organizational Capacity | 2.5 |
| Operations & Maintenance | 0 |
| Permitting | 2.5 |
| Total Score | 7.5 |

Table 2-3: Co-benefits Score

| Co-benefit | Score | Weight | Weighted Score |
|----------------------------------|-------|--------|----------------|
| Environmental Justice | 0 | 17.78% | 0 |
| Income | 0 | | |
| Race | 0 | | |
| Language | 0 | | |
| Ecological Benefits | 6 | 30.44% | 1.8264 |
| Listed / Impaired Water Resource | 3 | | |
| Priority Water Resource | 3 | | |
| Habitat & Species Enhancement | 0 | | |
| Ecosystem Services | 10 | 23.78% | 2.378 |
| Flood Regulation | 5 | | |
| Carbon Sequestration | 5 | | |
| Community Building | 0 | 15.78% | 0 |
| Community Involvement | 0 | | |
| Working Landscape | 0 | | |
| Recreation | 0 | | |
| Education | 0 | 12.22% | 0 |
| Interpretive Signage | 0 | | |
| Meetings & Workshops | 0 | | |
| Total Co-benefits Score 4.2044 | | | |

Table 2-4: Total Project Score

| Criteria | Score |
|--------------------------|--------|
| Cost-Effectiveness Score | 75 |
| Project Risk Score | 7.5 |
| Design Life Score | 5 |
| Co-benefits Score | 4.2044 |
| Total Project Score | 91.70 |

3. Friends of the Winooski River – SHO Riparian Buffer Planting:

This proposal seeks funding to implement a riparian buffer planting on 1.75 acres in the Huntington River Watershed (Huntington). The landowners support this project, but no Operations & Maintenance Plan has been signed. The expected phosphorous reduction for this project is 1.1 kg / yr. At \$12,673 / kg p, this project is considered costefficient. The total project score of 60.04 is acceptable for an Implementation-phase project. **Recommendation: prioritize this funding request.**

Table 3-1: Cost-Effectiveness Score

| Criteria | Value | | |
|---|----------|--|--|
| Funding Request | \$13,940 | | |
| Future Funding Request | \$0 | | |
| Total Cost | \$13,940 | | |
| Phosphorous Reduction (kg / yr) | 1.1 | | |
| Design Life | 15 | | |
| Cost Effectiveness (\$ / kg) | \$12,673 | | |
| Cost-Effectiveness Score 4 | | | |
| | | | |
| Cost Effectiveness Formula (\$ / kg / yr) = ((15 years / project design life) * (Total Cost)) / (Phosphorous Reduction (kg / yr)) | | | |

Maximum Implementation-phase Cost-Effectiveness Score = 75 points

Table 3-2: Project Risk Score

| Risk Category | Points |
|--------------------------|--------|
| Landowner Relations | 2.5 |
| Organizational Capacity | 2.5 |
| Operations & Maintenance | 0 |
| Permitting | 2.5 |
| Total Score | 7.5 |

Table 3-3: Co-benefits Score

| Co-benefit | Score | Weight | Weighted Score |
|----------------------------------|-------|--------|----------------|
| Environmental Justice | 0 | 17.78% | 0 |
| Income | 0 | | |
| Race | 0 | | |
| Language | 0 | | |
| Ecological Benefits | 0 | 30.44% | 0 |
| Listed / Impaired Water Resource | 0 | | |
| Priority Water Resource | 0 | | |
| Habitat & Species Enhancement | 0 | | |
| Ecosystem Services | 10 | 23.78% | 2.378 |
| Flood Regulation | 5 | | |
| Carbon Sequestration | 5 | | |
| Community Building | 1 | 15.78% | 0.1578 |
| Community Involvement | 1 | | |
| Working Landscape | 0 | | |
| Recreation | 0 | | |
| Education | 0 | 12.22% | 0 |
| Interpretive Signage | 0 | | |
| Meetings & Workshops | 0 | | |
| Total Co-benefits Score 2.5358 | | | |

Table 3-4: Total Project Score

| Criteria | Score |
|--------------------------|--------|
| Cost-Effectiveness Score | 45 |
| Project Risk Score | 7.5 |
| Design Life Score | 5 |
| Co-benefits Score | 2.5358 |
| Total Project Score | 60.04 |

4. Friends of the Winooski River – Tyler Place Trib Riparian Buffer Planting: This proposal seeks funding to implement a riparian buffer planting on 3.75 acres along a tributary to the Winooski River. The landowner supports this project, but no Operations & Maintenance Plan has been signed. The expected phosphorous reduction for this project is 3.25 kg / yr. At \$6,819 / kg p, this project is considered costefficient. The total project score of 90.51 is high for an Implementation-phase project. **Recommendation: prioritize this funding request.**

Table 4-1: Cost-Effectiveness Score

| Criteria | Value | |
|---|----------|--|
| Funding Request | \$25,572 | |
| Future Funding Request | \$0 | |
| Total Cost | \$25,572 | |
| Phosphorous Reduction (kg / yr) | 3.75 | |
| Design Life | 15 | |
| Cost Effectiveness (\$ / kg) | \$6,819 | |
| Cost-Effectiveness Score | 75 | |
| | | |
| Cost Effectiveness Formula (\$ / kg / yr) = ((15 years / project design life) * (Total Cost)) / (Phosphorous Reduction (kg / yr)) | | |

Maximum Implementation-phase Cost-Effectiveness Score = 75 points

Table 4-2: Project Risk Score

| Risk Category | Points |
|--------------------------|--------|
| Landowner Relations | 2.5 |
| Organizational Capacity | 2.5 |
| Operations & Maintenance | 0 |
| Permitting | 2.5 |
| Total Score | 7.5 |

Table 4-3: Co-benefits Score

| Co-benefit | Score | Weight | Weighted Score | |
|----------------------------------|-------|--------|----------------|--|
| Environmental Justice | 0 | 17.78% | 0 | |
| Income | 0 | | | |
| Race | 0 | | | |
| Language | 0 | | | |
| Ecological Benefits | 0 | 30.44% | 0 | |
| Listed / Impaired Water Resource | 0 | | | |
| Priority Water Resource | 0 | | | |
| Habitat & Species Enhancement | 0 | | | |
| Ecosystem Services | 10 | 23.78% | 2.378 | |
| Flood Regulation | 5 | | | |
| Carbon Sequestration | 5 | | | |
| Community Building | 4 | 15.78% | 0.6312 | |
| Community Involvement | 2 | | | |
| Working Landscape | 0 | | | |
| Recreation | 2 | | | |
| Education | 0 | 12.22% | 0 | |
| Interpretive Signage | 0 | | | |
| Meetings & Workshops | 0 | | | |
| Total Co-benefits Score 3.0092 | | | | |

Table 4-4: Total Project Score

| Criteria | Score |
|--------------------------|--------|
| Cost-Effectiveness Score | 75 |
| Project Risk Score | 7.5 |
| Design Life Score | 5 |
| Co-benefits Score | 3.0092 |
| Total Project Score | 90.51 |