

Original

Town of Ayer - Department of Public Works
October 29, 2021

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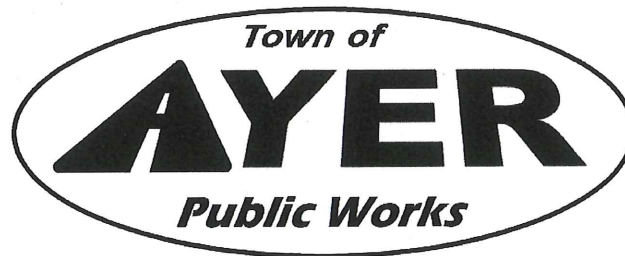
OCT 29 2021

TOWN OF AYER
OFFICE OF THE SELECT BOARD

FY 2023

5 Year Capital Budget Proposal

DRAFT



FORM A
TOWN OF AYER CAPITAL BUDGET REQUEST FORM
DEPARTMENT OF PUBLIC WORKS

FISCAL YEAR: **2023**

10/29/2021

DEPARTMENT: **DPW Administration**

	Item Requested	FY23	FY24	FY25	FY26	FY27
1	Main Street Decorative Street Light Upgrades	\$0	\$70,000	\$0	\$0	\$0
2	DPW Hybrid SUV (Replace 2010 Ford Escape)	\$35,000	\$0	\$0	\$0	\$0
Yearly Totals		\$35,000	\$70,000	\$0	\$0	\$0

DEPARTMENT: **Highway**

	Item Requested	FY23	FY24	FY25	FY26	FY27
1	Road Paving	\$85,000	\$85,000	\$85,000	\$85,000	\$85,000
2	1-Ton Pick up truck w/plow	\$60,000	\$0	\$0	\$0	\$0
3	Salt storage facility	\$0	\$0	\$400,000	\$0	\$0
4	Highway Garage Renovate Existing FY23 Design, FY24 Construction	\$400,000	\$4,700,000	\$0	\$0	\$0
5	Highway Garage Roof Repair	\$20,000	\$0	\$0	\$0	\$0
6	6-Wheel Dump Truck w/plow and spreader	\$0	\$0	\$250,000	\$0	\$0
7	W Main St Bridge Replacement - Additional funds	PLACE HOLDER	\$0	\$0	\$0	\$0
8	Barnum Rd Bridge Repairs (Design / Construction)	\$70,000	\$350,000	\$0	\$0	\$0
9	Sandy Pond Road Sidewalk Design	\$25,000	\$0	\$0	\$0	\$0
Yearly Totals		\$660,000	\$5,135,000	\$735,000	\$85,000	\$85,000

DEPARTMENT: **Stormwater**

	Item Requested	FY23	FY24	FY25	FY26	FY27
1	Stormwater Biofiltration/Outfall Improvements	\$50,000	\$0	\$50,000	\$0	\$50,000
2	Balch Pond Dam Repairs Phase 2- Dam Design & Permitting Phase 3 - Dam Modifications	\$0	\$52,000	\$300,000	\$0	\$0
Yearly Totals		\$50,000	\$52,000	\$350,000	\$0	\$50,000
DPW GENERAL FUND TOTAL		\$745,000	\$5,257,000	\$1,085,000	\$85,000	\$135,000

Date
10/29/21

FORM A
TOWN OF AYER CAPITAL BUDGET REQUEST FORM
DEPARTMENT OF PUBLIC WORKS
FISCAL YEAR: 2023
ENTERPRISE FUNDS

10/29/2021

DEPARTMENT: DPW Water

	Item Requested	FY23	FY24	FY25	FY26	FY27
1	Annual Water Main Replacements	\$300,000	\$300,000	\$300,000	\$350,000	\$350,000
2	Utility Truck with Plow	\$60,000	\$0	\$0	\$0	\$0
3	Washington Street Water Tank Painting	\$0	\$450,000	\$0	\$0	\$0
4	Spec Pond Well 3 New Source Approval	\$120,000	\$0	\$0	\$0	\$0
5	Spec Pond Well 3 Pumping Station and Transmission Main	\$0	\$250,000	\$1,750,000	\$0	\$0
6	Spec Pond GAC Upgrade for Well 3	\$0	\$0	\$0	\$585,000	\$0
7	Spec Pond GAC Media Replacement	\$0	\$0	\$168,000	\$0	\$168,000
8	Grove Pond Well 6 Replacement Well	\$0	\$0	\$0	\$120,000	\$0
9	Grove Pond Well 7 Replacement Well	\$0	\$120,000	\$0	\$0	\$0
10	Grove Pond Well 8 Replacement Well	\$0	\$0	\$0	\$0	\$120,000
11	Spec Pond Well Transmission Main Replacement	\$600,000	\$0	\$0	\$0	\$0
12	Portable Generator - Split with WW	\$75,000	\$0	\$0	\$0	\$0
13	Water Meter Reader Vehicle	\$35,000	\$0	\$0	\$0	\$0
WATER ENTERPRISE TOTAL		\$1,190,000	\$1,120,000	\$2,218,000	\$1,055,000	\$638,000

DEPARTMENT: Wastewater

	Item Requested	FY23	FY24	FY25	FY26	FY27
1	Inflow/ Infiltration Repairs	\$0	\$0	\$750,000	\$750,000	\$750,000
2	WWTP Upgrades	\$0	\$0	\$3,500,000	\$0	\$3,300,000
3	Portable Generator - Split with Water	\$75,000	\$0	\$0	\$0	\$0
4	Westford Road Sewer Replacement	\$1,200,000	\$0	\$0	\$0	\$0
5	Sandy Pond Road Sewer Rehabilitation	\$0	\$2,500,000	\$0	\$0	\$0
6	Pickup Truck Replacement	\$0	\$40,000	\$0	\$0	\$0
7	Bennetts Brook Pump Station Upgrades	\$0	\$0	\$0	\$150,000	\$0
WASTEWATER ENTERPRISE TOTAL		\$1,275,000	\$2,540,000	\$4,250,000	\$900,000	\$4,050,000

DEPARTMENT: Solid Waste

	Item Requested	FY23	FY24	FY25	FY26	FY27
1		\$0	\$0	\$0	\$0	\$0
SOLID WASTE ENTERPRISE TOTAL		\$0	\$0	\$0	\$0	\$0

Dad
10/29/21


FORM A
TOWN OF AYER CAPITAL BUDGET REQUEST FORM

DEPARTMENT: Administration

FISCAL YEAR: 2023

Please list each capital request on this form with a dollar amount and in the appropriate year. Then complete a Form B for each request appearing on this sheet.

	Item Requested	FY23	FY24	FY25	FY26	FY27
1	Main Street Decorative Street Light Upgrades		\$70,000		\$0	
2	DPW Hybrid SUV (Replace 2010 Ford Escape)	\$35,000				
Yearly Totals		\$35,000	\$70,000	\$0	\$0	\$0

Department Head Signature: 
Date: 10/29/21

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT:

Public Works Administration and Engineering

FISCAL YEAR: 2023

Please provide written explanation and justification and any appropriate backup materials that would be necessary to understand and consider this request.

Fiscal Year of Request: FY24

Item or Project: Main St Decorative Streetlights

Explanation of Request: The decorative streetlights on Main Street, West Main Street and Columbia Street were installed in the min 1980's. There are a total of 50 lights, We have replaced about 2/3 of these lights. The replacement lights are aluminum poles with LED lights. We will add the radio controllers to these lights

Cost Justification: Cost is based on recent prices for light replacements and installation for 6 single lights and 2 double lights. The price was based on the bid price for 2019 replacement project. If bids are under budget, we will replace additional lights.

Benefit to the Town: Failing infrastructure that could cause injury or property damage if not repaired The lights will be brighter and can be controlled via software which will save electrical costs for the Town.

Alternative: Wait until the Main St TIP project is constructed- estimated 2024

Department Head Signature: 

Date: 10/29/21

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Administration

FISCAL YEAR: 2023

Please provide written explanation and justification and any appropriate backup materials that would be necessary to understand and consider this request.

Fiscal Year of Request: FY23

Item or Project: DPW Hybrid SUV

Explanation of Request: The 2010 Ford Escape is nearing the end of its useful life and requires replacement. The vehicle is heavily rusted and deteriorating.

Cost Justification: The price is based upon State Bid for similar vehicles

Benefit to the Town: Provides economical and safe transportation to DPW staff

Alternative: Continue to use vehicle until maintenance costs exceed replacement costs.

Department Head Signature: 

Date: 10/29/2021

FORM A
TOWN OF AYER CAPITAL BUDGET REQUEST FORM

DEPARTMENT: Highway

FISCAL YEAR: 2023

Please list each capital request on this form with a dollar amount and in the appropriate year. Then complete a Form B for each request appearing on this sheet.

	Item Requested	FY23	FY24	FY25	FY26	FY27
1	Road Paving	\$85,000	\$85,000	\$85,000	\$85,000	\$85,000
2	1-Ton Pick up truck w/plow	\$60,000				
3	Salt storage facility			\$400,000		
4	Highway Garage Renovate Existing FY23 Design, FY24 Construction	\$400,000	\$4,700,000			
5	Highway Garage Roof Repair	\$20,000				
6	6-Wheel Dump Truck w/plow and spreader			\$250,000		
7	W Main St Bridge Replacement - Additional funds	PLACE HOLDER				
8	Barnum Rd Bridge Repairs (Design / Construction)	\$70,000	\$350,000			
9	Sandy Pond Road Sidewalk Design	\$20,000				
Yearly Totals		\$655,000	\$5,135,000	\$735,000	\$85,000	\$85,000

Department Head Signature: DM

Date: 10/29/21

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Highway

FISCAL YEAR: 2023

Please provide written explanation and justification and any appropriate backup materials that would be necessary to understand and consider this request.

Fiscal Year of Request: FY23, FY24, FY25, FY26, FY27

Item or Project: Road Paving

Explanation of Request: The Ayer DPW updated the pavement management plan in 2021 using a software called Predictor. We currently reconstruct / repave roads and sidewalks using MassDOT Chapter 90 funds. Ayer's current allocation is approximately \$240,000 per year. Our pavement management plan provides a Pavement Condition Index - PCI for each street ranging from 0 (poor condition) to 100 (newly paved). Ayer streets have an average PCI of 73. A PCI of 80 is considered acceptable. If we continue to use only Chapter 90 (i.e. \$240,000 per year), the model indicates the PCI will reach a plateau of 77. A budget of \$325,000 will raise the PCI to 80 after approximately 8 years which can then be maintained with the Chapter 90 budget.

Cost Justification: The budget is based on current paving bid prices with a construction inflation factor.

Benefit to the Town: Maintain the Town's infrastructure on an annual basis and provide the town with safe transportation.

Alternative: Rely on Chapter 90 funding only and apply for other grants when available.

Department Head Signature: 

Date: 10/29/21

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Highway

FISCAL YEAR: 2023

Please provide written explanation and justification and any appropriate backup materials that would be necessary to understand and consider this request.

Fiscal Year of Request: FY23 - Design, FY24 Construction

Item or Project: DPW Highway Garage Renovation

Explanation of Request: The DPW- Highway garage was constructed in 1967 (50 years ago). This project is part of the phased DPW facility upgrade plan. This will renovate the existing garage and provide updated HVAC, plumbing electrical and equipment, replace the roof, paint the walls and provide facilities for the staff.

Cost Justification: The budget is based on engineers estimate in the 2015 DPW Facility Report with adjustment for inflation and recent bid prices. With the design phase in FY23, the construction cost can be refined.

Benefit to the Town: Provides an updated, safe and functional facility for this important town Department. This is part of a cost effective program to upgrade the Town of Ayer DPW facilities.

Alternative: Continue to utilize the existing structures and buildings and risk injury, damage, and costly maintenance repairs.
Construct a new DPW facility at a cost of \$18M.
Defer the project for another year

Department Head Signature: 

Date: 10/29/21

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Highway

FISCAL YEAR: 2023

Please provide written explanation and justification and any appropriate backup materials that would be necessary to understand and consider this request.

Fiscal Year of Request: FY23

Item or Project: DPW Highway Garage Roof Repairs

Explanation of Request: The DPW- Highway garage was constructed in 1967 (50 years ago). The existing EPDM roof is badly deteriorated including rubber EPDM separated and hanging, termination bar failures, rotted wood blocking, and noticeable leaking inside the garage. The repair will act as a band aid to the existing roof until the full garage renovation occurs. The current situation is a safety issue as well as infrastructure issue.

Cost Justification: The budget is based on a roof contractor's estimate.

Benefit to the Town: Provides an updated, safe and functional roof for this important town Department. Extends the life of the roof until renovation. Mitigates a safety issue and the potential for property and equipment loss.

Alternative: Continue to utilize the existing structures and buildings and risk injury and damage.
Defer the maintenance for another year

Department Head Signature: 

Date: 10/29/21

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Highway

FISCAL YEAR: 2023

Please provide written explanation and justification and any appropriate backup materials that would be necessary to understand and consider this request.

Fiscal Year of Request: FY25


Item or Project: Salt Storage Facility

Explanation of Request: The existing salt storage facility for the DPW needs significant repairs to the walls and roof. A new larger storage facility will provide more storage volume and optimize salt loading during winter storms. It will also reduce the potential for salt loss and run-off contamination.

Cost Justification: The budget is based on estimated construction costs for similar facilities.

Benefit to the Town: Provides a more efficient state of the art building to protect the investment in salt and ability to rapidly fill trucks and respond to snow and ice emergencies.

Alternative: Continue to maintain and utilize the existing structure.

Department Head Signature: 
Date: 10/26/21

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Highway

FISCAL YEAR: 2023

Please provide written explanation and justification and any appropriate backup materials that would be necessary to understand and consider this request.

Fiscal Year of Request: FY23


Item or Project: 1-Ton Pickup with Plow

Explanation of Request: This truck replaces a 2006 3/4 ton Chevrolet Silverado. This is the first responding vehicle to roadway emergencies and callbacks. It is the front-line plow vehicle which directs all snow-plowing operations.

Cost Justification: The price is based upon recent quote as specified by the State Bid list

Benefit to the Town: Optimized response to all roadway emergencies and snow plowing operations throughout Town.

Alternative: Continue to utilize the aging fleet with increasing repair costs, questionable reliability

Department Head Signature: 
Date: 10/29/21

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Highway

FISCAL YEAR: 2023

Please provide written explanation and justification and any appropriate backup materials that would be necessary to understand and consider this request.

Fiscal Year of Request: FY25


Item or Project: 6-Wheel Hook Lift Truck w/ Dump, Plow and Spreader

Explanation of Request: This truck replaces a 2003 International Dump Truck which is requiring significant repairs and a breakdown could impact the Town's snow plowing operations. A new truck will provide more reliability and continue to upgrade the Town fleet in a cost-effective manner.

Cost Justification: The price is based upon recent quote from State bid.

Benefit to the Town: To upgrade the aging fleet of front-line plow trucks while attempting to increase fuel efficiency with the newer vehicles. New vehicles ensure reliability in response to snow emergencies and significantly reduces emissions.

Alternative: Continue to utilize the aging fleet with continually increasing repair costs, questionable reliability,.

Department Head Signature: 
Date: 10/29/21

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Highway

FISCAL YEAR: 2023

Please provide written explanation and justification and any appropriate backup materials that would be necessary to understand and consider this request.

Fiscal Year of Request: FY23

Item or Project: West Main Street Bridge Replacement Additional Funding

Explanation of Request: The West Main Street Bridge Replacement was bid in summer 2020 and was approximately \$1M over the current appropriation (FY18 \$1.2M) The DPW also recieved MaDOT grant for \$500,000 for this project. DPW is currently evaluating design alternatives to reduce the cost and attempt to reconstruct thuis withing the current appropriation.

Cost Justification: Project has been bid but we are evaluating alternatives

Benefit to the Town: Repairs to bridge to allow it to safely reopen and provide a secondary road between the Town center and W Main Street.

Alternative:

Department Head Signature: 

Date: 10/29/21

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Highway

FISCAL YEAR: 2023

Please provide written explanation and justification and any appropriate backup materials that would be necessary to understand and consider this request.

Fiscal Year of Request: FY23 (design), FY24 (construction)

Item or Project: Barnum Road Bridge Repair

Explanation of Request: The Barnum Rd bridge is inspected every 2 years by MassDOT. The most recent reports have identified several deficiencies. It is recommended to repair these deficiencies before the deterioration is severe. The cost estimate is based on a preliminary engineering estimate.

Cost Justification: The budget is based on an engineering inspection, similar projects and input from engineers familiar with the project.

Benefit to the Town: Repairs to bridge are required to maintain the useful life of the bridge.

Alternative: Chapter 90 money could be used but would require deferring of road maintenance.

Department Head Signature: 

Date: 10/29/21

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Highway

FISCAL YEAR: 2023

Please provide written explanation and justification and any appropriate backup materials that would be necessary to understand and consider this request.

Fiscal Year of Request: FY23

Item or Project: Sandy Pond Road Sidewalk Design

Explanation of Request: The Ayer DPW has received several requests to construct a sidewalk between Snake Hill Road and Westford Road on Sandy Pond Road. This project has also been identified in the Town's Complete Streets Prioritization Plan. The request will provide preliminary design and cost estimate for the project. The construction would be completed separately by submission for Complete Streets grant funding. The design process will look at impacts to property/Right-of-Way, environmental permitting, and design criteria (sidewalk vs multi-use path).

Cost Justification: The budget is based on similar design projects the DPW has completed.

Benefit to the Town: Provide accomodations for pedestrians and bicycles along the corridor.

Alternative: Use Chapter 90 funding and defer road maintenance.
Do nothing.

Department Head Signature: 
Date: 10/29/21

FORM A
TOWN OF AYER CAPITAL BUDGET REQUEST FORM

DEPARTMENT: **Stormwater**


FISCAL YEAR: **2023**

Please list each capital request on this form with a dollar amount and in the appropriate year. Then complete a Form B for each request appearing on this sheet.

	Item Requested	FY23	FY24	FY25	FY26	FY27
1	Stormwater Biofiltration/Outfall Improvements	\$50,000		\$50,000		\$50,000
2	Balch Pond Dam Repairs Phase 2- Dam Design & Permitting Phase 3 - Dam Modifications		\$52,000	\$300,000		
Yearly Totals		\$50,000	\$52,000	\$350,000	\$0	\$50,000

Department Head Signature: _____

Date: _____


10/29/21

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Stormwater

FISCAL YEAR: 2023

Please provide written explanation and justification and any appropriate backup materials that would be necessary to understand and consider this request.

Fiscal Year of Request: FY23, FY25, FY27

Item or Project: Stormwater Outfall Biofiltration Systems

Explanation of Request: The 2015 Pond Management study identified 11 areas where improvements to drainage outfalls that will reduce pollution entering the town ponds. This capital item is for the construction of three to four stormwater biofiltration systems in the Flannagan Pond and Grove Pond areas to reduce stormwater runoff contamination from entering the ponds. These improvements are required to meet the 2017 EPA Stormwater Permit.

Cost Justification: The budget is based upon costs developed by the engineers in the Pond Management Study and updated based on DPW Phase 1 bid results

Benefit to the Town: These projects are required in the Town's Stormwater permit. They improve the water quality in the towns important water resources

Alternative: There are no resonable or more cost efective alternatives. The "do nothing" alternative may result in permit violations and fines.

Department Head Signature: 

Date: 10/29/21

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Stormwater

FISCAL YEAR: 2023

Please provide written explanation and justification and any appropriate backup materials that would be necessary to understand and consider this request.

Fiscal Year of Request: FY24, FY25

Item or Project: Balch Pond Dam Improvements

Explanation of Request: The Town is responsible for inspecting and maintaining the dams and dikes on public property. These dams require inspections every 5 years and also need maintenance including new flash boards, fencing and concrete repairs. Based on the 2012 inspection of the Balch Pond Dam and MassDOT completed a Phase 2 Report in 2014. Significant repairs are required on the dam and dike. In order to comply with the requirements of MassOffice of Dam Safety, improvements are required. There is some question as to the ownership responsibility of the Balch Pond Dam. The Dike is on Town ROW property. Some Phase 3 work is included in the DPW capital budget, however MassDOT may also be scheduling this work.

Cost Justification: The budget is based upon engineering estimates from the 2014 Phase 2 Report.

Benefit to the Town: Maintain existing dam infrastructure and pond levels, meet Dam Safety requirements and protect public safety and meet Mass Dam Safety regulations to avoid fines.

Alternative: Work with MassDOT and see if they are responsible for some of the improvements

Department Head Signature: 

Date: 10/29/21

FORM A
TOWN OF AYER CAPITAL BUDGET REQUEST FORM

DEPARTMENT: Water

FISCAL YEAR: 2023

Please list each capital request on this form with a dollar amount and in the appropriate year. Then complete a Form B for each request appearing on this sheet.

	Item Requested	FY23	FY24	FY25	FY26	FY27
1	Annual Water Main Replacements	\$300,000	\$300,000	\$300,000	\$350,000	\$350,000
2	Utility Truck with Plow	\$60,000				
3	Washington Street Water Tank Painting		\$450,000			
4	Spec Pond Well 3 New Source Approval	\$120,000				
5	Spec Pond Well 3 Pumping Station and Transmission Main		\$250,000	\$1,750,000		
6	Spec Pond GAC Upgrade for Well 3				\$585,000	
7	Spec Pond GAC Media Replacement			\$168,000		\$168,000
8	Grove Pond Well 6 Replacement Well				\$120,000	
9	Grove Pond Well 7 Replacement Well		\$120,000			
10	Grove Pond Well 8 Replacement Well					\$120,000
11	Spec Pond Well Transmission Main Replacement	\$600,000				
12	Portable Generator - Split with WW	\$75,000				
13	Water Meter Reader Vehicle	\$35,000				
Yearly Totals		\$1,190,000	\$1,120,000	\$2,218,000	\$1,055,000	\$638,000

Department Head Signature: 

Date: 10/29/21

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Water

FISCAL YEAR: 2023

Please provide written explanation and justification and any appropriate backup materials that would be necessary to understand and consider this request.

Fiscal Year of Request: FY23, FY24, FY25, FY26, FY27

Item or Project: Annual Water Main Replacement

Explanation of Request: The Town Water Distribution System consists of 37 miles of pipe ranging from 4 to 16 inch diameter. Much of the system is over 110 years old, has internal corrosion or has exceeded it's useful life. This item will budget for an annual water main replacement program to begin upgrading the aging infrastructure. The priority will be coordinated with other town projects including road paving. This approach has been effective in beginning to address the need for a long term infrastructure upgrade program. Proposed projects include Birch St, Brook St., McDowell St, Shirley St, and Winthrop St..

Cost Justification: The \$300,000 budget is based on approximately 1500 to 2000 feet of replacement per year. Engineering is done in-house

Benefit to the Town: Replace aging infrastructure before major failure or maintenance is required. Improve water quality and reliability

Alternative: Do nothing and risk future more costly repairs. Reduce annual footage, Wait for future grant programs.

Department Head Signature: 

Date: 10/29/21

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Water

FISCAL YEAR: 2023

Please provide written explanation and justification and any appropriate backup materials that would be necessary to understand and consider this request.

Fiscal Year of Request: FY23

Item or Project: Utility Body 1 ton Pickup with Plow

Explanation of Request: This truck replaces a 2003 Chevrolet 3500. The truck has significant body rust and other mechanical issues. This is used to operate the water distribution system and the two water plants. It will have a utility body for maintenance and emergency tools and plow for winter plowing.

Cost Justification: The price is based upon recent quote as specified by the State Bid list

Benefit to the Town: Efficient operations of Water system.

Alternative: Continue to utilize the aging fleet with increasing repair costs, questionable reliability

Department Head Signature: 

Date: 10/29/21

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Water

FISCAL YEAR: 2023

Please provide written explanation and justification and any appropriate backup materials that would be necessary to understand and consider this request.

Fiscal Year of Request: FY24


Item or Project: Washington Street Water Tank Painting

Explanation of Request: The Washington Street Water Tank was constructed in 1995. Steel water tanks are painted with specialty coating to protect the steel structure. The DPW inspects the tank every two years to evaluate the condition of the coating system and so far it's been in good condition. Typically paint systems last every 15 to 20 years, so it is not unreasonable to expect to repaint the tank in FY24. However we will continue to monitor the existing coatings and adjust the schedule as needed.

Cost Justification: The price is based upon recent bids for similar tanks. The project would be bid to get the best price.

Benefit to the Town: Maintains the investment in infrastructure

Alternative: Defer Maintenance

Department Head Signature: 
Date: 10/29/21

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Water

FISCAL YEAR: 2023

Please provide written explanation and justification and any appropriate backup materials that would be necessary to understand and consider this request.

Fiscal Year of Request: FY23

Item or Project: Spec Pond Groundwater New Source Approval

Explanation of Request: The FY20 capital plan included the initial phase of a groundwater source investigation on a town owned parcel west of Sandas Point Road near Spec Pond. Preliminary results of the testing indicate that this may be an additional supply. The next phase is to perform a New Source Approval Testing and Report, as required by MassDEP

Cost Justification: The cost estimate was supplied by a groundwater hydrogeologist who regularly performs this type of work. The cost includes MassDEP permitting, additional observation wells, a prolonged pumping test, water quality samples and preparation of a report.

Benefit to the Town: Identify potential future water supply well site(s)

Alternative: Continue current operations and identify additional supplies through interconnections.

Department Head Signature: 

Date: 10/29/21

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Water

FISCAL YEAR: 2023

Please provide written explanation and justification and any appropriate backup materials that would be necessary to understand and consider this request.

Fiscal Year of Request: FY24, FY25

Item or Project: Spec Pond Well 3 Pumping Station and Transmission Main

Explanation of Request: Following the new source approval for Spec Pond Well 3, the next step would be to design and construct a pumping station and transmission main from the source to the Spec Pond Water Treatment Plant.

Cost Justification: The cost estimate is based on similar projects.

Benefit to the Town: Identify potential future water supply well site(s)

Alternative: Continue current operations and identify additional supplies through interconnections.

Department Head Signature: 

Date: 10/29/21

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Water

FISCAL YEAR: 2023

Please provide written explanation and justification and any appropriate backup materials that would be necessary to understand and consider this request.

Fiscal Year of Request: FY26

Item or Project: Spec Pond GAC Upgrade for Well 3

Explanation of Request: The construction of the new source (Spec Pond Well 3) will require the treatment plant Granular Activated Carbon (GAC) system to be upgraded to provide treatment capacity.

Cost Justification: The cost estimate is based on our consulting engineer's estimate.

Benefit to the Town: Identify potential future water supply well site(s)

Alternative: Continue current operations and identify additional supplies through interconnections.

Department Head Signature: 

Date: 10/29/21

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Water

FISCAL YEAR: 2023

Please provide written explanation and justification and any appropriate backup materials that would be necessary to understand and consider this request.

Fiscal Year of Request: FY25, FY27

Item or Project: Spec Pond GAC Media Replacement

Explanation of Request: The construction of the Granular Activated Carbon (GAC) for PFAS treatment is anticipated to require replacement every two years. This timeframe is based on the Engineer's estimate of when the GAC will be "spent", meaning the GACs ability to treat is used up and no longer able to remove PFAS.

Cost Justification: The cost estimate is based on our consulting engineer's estimate.

Benefit to the Town: Identify potential future water supply well site(s)

Alternative: Continue current operations and identify additional supplies through interconnections.

Department Head Signature: 

Date: 10/29/21

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Water

FISCAL YEAR: 2023

Please provide written explanation and justification and any appropriate backup materials that would be necessary to understand and consider this request.

Fiscal Year of Request: FY24, FY26, FY27

Item or Project: Grove Pond Replacement Wells

Explanation of Request: Ayer's groundwater supply wells have very high levels of iron and manganese in the water. This is removed from the water at the town treatment plants. However, it plugs up the wells resulting in decrease yield and requiring annual well "cleaning" at a cost of \$20k per well. This request will replace the existing wells with larger diameter wells that will require less frequent cleaning and more efficient pumping and supply yield.


Cost Justification: Annual well cleaning costs are approximately \$40K and increasing every year. Replacement wells will restore the capacity and require less cleaning, reducing annual costs.

Benefit to the Town: Provide more efficient supplies and reduce annual well maintenance costs

Alternative: Continue with cleaning and redeveloping wells annually and manage supplies to reduce the declining yield of the wellfield.

Department Head Signature: _____

Date: _____


10/29/21

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Water

FISCAL YEAR: 2023

Please provide written explanation and justification and any appropriate backup materials that would be necessary to understand and consider this request.

Fiscal Year of Request: FY23

Item or Project: Spec Pond Well Transmission Main Replac

Explanation of Request: The transmission main exiting the Spec Pond Water Treatment Plant traverses cross-country to Willow Road. In 2021, there was a water main break on the transmission main in the area of a culvert crossing, an emergency repair was made. Observations of the break identified pin-hole leaks in the pipe due to external corrosion. The DPW hired an Engineer to provide alternatives and cost estimates for replacement or rehab of the approximate 600-ft section of pipe.

Cost Justification: The \$600,000 budget is based on an Engineer's evaluation.

Benefit to the Town: Replace corroded transmission main and maintain reliable service from Spec Pond WTP.

Alternative: Do nothing and risk future emergency repairs, downtime of Spec Pond WTP.

Department Head Signature: 

Date: 10/29/21

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Water

FISCAL YEAR: 2023

Please provide written explanation and justification and any appropriate backup materials that would be necessary to understand and consider this request.

Fiscal Year of Request: FY23

Item or Project: Trailer Mounted Emergency Generator

Explanation of Request: The Water and Wastewater systems in Ayer have a total of 6 large generators for emergency power. In the past 3 years, we have had generator failures requiring rental of generators. In response to the need for quick response to potential power and equipment failure, a trailer mounted portable generator is recommended.

Cost Justification: The price is based upon equipment dealer costs. The DPW will explore grant opportunities for this generator. Cost will be split between water and wastewater enterprises.

Benefit to the Town: Ability to respond to emergencies and continue to provide water and wastewater service. With 6 generators, the likelihood of a failure is increased.

Alternative: Rent generator when needed. Note that this requires significant lead and set-up time so service may be interrupted.

Department Head Signature: 

Date: 10/29/21

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Water

FISCAL YEAR: 2023

Please provide written explanation and justification and any appropriate backup materials that would be necessary to understand and consider this request.

Fiscal Year of Request: FY23

Item or Project: Water Meter Reader Vehicle

Explanation of Request: This vehicle replaces a 2009 Ford Ranger pickup. The truck has significant body rust and other mechanical issues. This is used to perform meter replacements and reads. The vehicle will be able to store equipment and tools for the meter reader's work.

Cost Justification: The price is based upon recent quote.

Benefit to the Town: Maintain meters, obtain proper reads for billing.

Alternative: Continue to utilize the aging fleet with increasing repair costs, questionable reliability

Department Head Signature: 

Date: 10/29/21

FORM A
TOWN OF AYER CAPITAL BUDGET REQUEST FORM

DEPARTMENT: Wastewater

FISCAL YEAR: 2023

Please list each capital request on this form with a dollar amount and in the appropriate year. Then complete a Form B for each request appearing on this sheet.

	Item Requested	FY23	FY24	FY25	FY26	FY27
1	Inflow/ Infiltration Repairs			\$750,000	\$750,000	\$750,000
2	WWTP Upgrades			\$3,500,000		\$3,300,000
3	Portable Generator - Split with Water	\$75,000				
4	Westford Road Sewer Replacement	\$1,200,000				
5	Sandy Pond Road Sewer Rehabilitation		\$2,500,000			
6	Pickup Truck Replacement		\$40,000			
7	Bennetts Brook Pump Station Upgrades				\$150,000	
Yearly Totals		\$1,275,000	\$2,540,000	\$4,250,000	\$900,000	\$4,050,000

Department Head Signature: _____

Date: 10/29/21

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Wastewater

FISCAL YEAR: 2023

Please provide written explanation and justification and any appropriate backup materials that would be necessary to understand and consider this request.

Fiscal Year of Request: FY25, FY26, FY27

Item or Project: Inflow / Infiltration Sewer Repairs

Explanation of Request: The Town sewer system is aging and has significant inflow and infiltration during wet weather and spring snow melt. The flows to the plant more than double at times, resulting in added pumping, treatment and operating costs. The EPA NPDES permit for the town has requirements to reduce the I/I. The DPW has completed a detailed investigation including CCTV inspection of pipes and manholes and quantifying the inflow / infiltration. Based on the investigations, a long term, phased sewer rehab program has been developed.

Cost Justification: The Budget is based on I/I plan developed by Arcadis Consultants based on the 2018 investigation / study.

Benefit to the Town: To reduce the flows, pumping and treatment costs, operations and provide a basis for requiring developer participation. Also meet regulatory requirements. The DPW is also developing an I/I removal policy that would require developers to pay for repairs to support I/I removal.

Alternative: Continue current operations. At some point, reduction in I/I will be mandated by the EPA as a NPDES Permit Condition.

Department Head Signature: 
Date: 10/29/21

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Wastewater

FISCAL YEAR: 2023

Please provide written explanation and justification and any appropriate backup materials that would be necessary to understand and consider this request.

Fiscal Year of Request: FY25, FY27


Item or Project: Wastewater Treatment Plant Upgrades

Explanation of Request: The Ayer Wastewater Treatment Plant was constructed in 1982 .It has had process upgrades but much of the process and building systems have not been upgraded. In addition, there are new regulations that the Town must comply with. The DPW completed a WWTP facility evaluation for the facility site, process, equipment, building systems and efficiency, including improvements required to meet the NPDES Discharge Permit. A five year + program has been developed to prioritize and categorize the improvements.

Cost Justification: The budget is based on 2015 detailed engineering evaluation and report completed by CDM-Smith, the company that designed the original plant and a world renowned environmental engineering consultant and has been updated and reprioritized on an annual basis.

Benefit to the Town: Improve the safety and reliability, operational efficiency, reduce operational costs, prolong the life of the facility and meet regulatory requirements.

Alternative: Doing nothing and continue with costly repairs and reliability issues.
Scale down the scope and phase the improvements over a longer period of time

Department Head Signature: 
Date: 10/29/21

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Wastewater

FISCAL YEAR: 2023

Please provide written explanation and justification and any appropriate backup materials that would be necessary to understand and consider this request.

Fiscal Year of Request: FY23

Item or Project: Trailer Mounted Emergency Generator

Explanation of Request: The Water and Wastewater systems in Ayer have a total of 6 large generators for emergency power. In the past 3 years, we have had generator failures requiring rental of generators. In response to the need for quick response to potential power and equipment failure, a trailer mounted portable generator is recommended.

Cost Justification: The price is based upon equipment dealer costs. The DPW will explore grant opportunities for this generator. Cost will be split between water and wastewater enterprises.

Benefit to the Town: Ability to respond to emergencies and continue to provide water and wastewater service. With 6 generators, the likelihood of a failure is increased.

Alternative: Rent generator when needed. Note that this requires significant lead and set-up time so service may be interrupted.

Department Head Signature: _____

Date: _____

DA
10/29/21

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Wastewater

FISCAL YEAR: 2023

Please provide written explanation and justification and any appropriate backup materials that would be necessary to understand and consider this request.

Fiscal Year of Request: FY23

Item or Project: Westford Road Sewer Replacement

Explanation of Request: A sewer main break on Westford Road occurred in early 2021 and was repaired as an emergency. The section of main is located downstream of the Stony Brook Pump Station and receives significant flow from industry. Further inspection of the sewer main indicates significant corrosion and loss of structural stability of the pipe and manhole structures. After evaluation by Contractors and Engineers the pipe and manholes require replacement. Arcadis engineers are currently designing the replacement.

Cost Justification: The Budget is based on the engineer's preliminary cost estimate.

Benefit to the Town: Replace sewer main for reliable sewer structures, prevent future backups and emergency repair costs.

Alternative: Doing nothing and continue with costly repairs and reliability issues.

Department Head Signature: 

Date: 10/29/21

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Wastewater

FISCAL YEAR: 2023

Please provide written explanation and justification and any appropriate backup materials that would be necessary to understand and consider this request.

Fiscal Year of Request: FY24

Item or Project: Sandy Pond Road Sewer Rehabilitation

Explanation of Request: The sewer main on Sandy Pond Road is immediately downstream of the Westford Road sewer main which requires replacement. This section of sewer main was previously identified as part of the I/I Study as needing rehabilitation

Cost Justification: The Budget is based on the engineer's preliminary cost estimate.

Benefit to the Town: Replace sewer main for reliable sewer structures, prevent future backups and emergency repair costs.

Alternative: Doing nothing and continue with costly repairs and reliability issues.

Department Head Signature: 

Date: 10/29/21

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Wastewater

FISCAL YEAR: 2023

Please provide written explanation and justification and any appropriate backup materials that would be necessary to understand and consider this request.

Fiscal Year of Request: FY26

Item or Project: Bennetts Brook Sewer Pumping Station Upgrade

Explanation of Request: The Town Wastewater system includes 20 wastewater lift / pumping stations of various ages, sizes and designs. The DPW has numerous alarm conditions related to failing equipment in these stations resulting in overtime and loss of service. The Bennetts Brook Pumping Station is an "suction lift" type station located near Bennetts Brook constructed in 1999. The DPW is proposing to upgrade the equipment in the existing station to improve reliability and efficiency.

Cost Justification: The price is based upon similar projects.

Benefit to the Town: Upgrade will provide more efficient operations, reliability and reduce costly repairs to this station.

Alternative: Do nothing and risk potential health and safety issues if the pump station fails. Risk loss to the surrounding area and environment (damage to property/resource areas).

Department Head Signature: 

Date: 10/29/21

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Wastewater

FISCAL YEAR: 2023

Please provide written explanation and justification and any appropriate backup materials that would be necessary to understand and consider this request.

Fiscal Year of Request: FY24

Item or Project: Pickup Truck

Explanation of Request: This truck replaces a 2007 Chevrolet 2500. The truck has significant body rust and other mechanical issues. This is used to operate the wastewater collection system and WWTP. It will have a plow for winter plowing.

Cost Justification: The price is based upon recent quote as specified by the State Bid list

Benefit to the Town: Efficient operations of Wastewater system.

Alternative: Continue to utilize the aging fleet with increasing repair costs, questionable reliability

Department Head Signature: 

Date: 10/29/21