

Town of Ayer - Department of Public Works  
October 30, 2020

---

FY 2022

## 5 Year Capital Budget Proposal

DRAFT



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

FISCAL YEAR: 2022

10/30/2020

DEPARTMENT: DPW Administration

	Item Requested	FY22	FY23	FY24	FY25	FY26
1	Main Street Decorative Street Light Upgrades	\$70,000	\$0	\$70,000	\$0	\$0
2	DPW Hybrid SUV (Replace 2010 Ford Escape)	\$0	\$35,000	\$0	\$0	\$0
<b>Yearly Totals</b>		<b>\$70,000</b>	<b>\$35,000</b>	<b>\$70,000</b>	<b>\$0</b>	<b>\$0</b>

DEPARTMENT: Highway

	Item Requested	FY22	FY23	FY24	FY25	FY26
1	Road Paving	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000
2	1-Ton Pick up truck w/plow	\$0	\$55,000	\$0	\$0	\$0
3	Salt storage facility	\$0	\$0	\$0	\$400,000	\$0
4	Highway Garage Renovate Existing FY23 Design, FY24 Construction	\$0	\$400,000	\$4,700,000	\$0	\$0
5	6-Wheel Dump Truck w/plow and spreader	\$0	\$0	\$0	\$250,000	\$0
6	W Main St Bridge Replacement - Additional funds	PLACE HOLDER	\$0	\$0	\$0	\$0
7	Barnum Rd Bridge Repairs (Design / Construction)	\$0	\$70,000	\$350,000	\$0	\$0
<b>Yearly Totals</b>		<b>\$150,000</b>	<b>\$675,000</b>	<b>\$5,200,000</b>	<b>\$800,000</b>	<b>\$150,000</b>

DEPARTMENT: Stormwater

	Item Requested	FY22	FY23	FY24	FY25	FY26
1	Storm Drain Upgrades	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
2	Stormwater Biofiltration/Outfall Improvements	\$0	\$50,000	\$0	\$50,000	\$0
3	Culvert Replacements	\$50,000	\$100,000	\$50,000	\$100,000	\$50,000
4	Stormwater Asset / Master Plan Grant Match	\$40,000	\$0	\$0	\$0	\$0
5	Balch Pond Dam Repairs Phase 2 - Dam Design & Permitting Phase 3 - Dam Modifications	\$0	\$52,000	\$300,000	\$0	\$0
<b>Yearly Totals</b>		<b>\$190,000</b>	<b>\$302,000</b>	<b>\$450,000</b>	<b>\$250,000</b>	<b>\$150,000</b>
	<b>DPW GENERAL FUND TOTAL</b>	<b>\$410,000</b>	<b>\$1,012,000</b>	<b>\$5,720,000</b>	<b>\$1,050,000</b>	<b>\$300,000</b>

*M. K. J.*  
10-30-2020

FORM A  
TOWN OF AYER CAPITAL BUDGET REQUEST FORM  
DEPARTMENT OF PUBLIC WORKS  
FISCAL YEAR: 2022  
ENTERPRISE FUNDS

10/30/2020

DEPARTMENT: **DPW Water**

	Item Requested	FY22	FY23	FY24	FY25	FY26
1	Annual Water Main Replacements	\$250,000	\$300,000	\$300,000	\$300,000	\$350,000
2	West Main Street / Devens Connection	MassWorks Grant	\$0	\$0	\$0	\$0
3	Utility Truck with Plow	\$60,000	\$0	\$0	\$0	\$0
4	Washington Street Water Tank Painting	\$0	\$0	\$450,000	\$0	\$0
5	Spec Pond Groundwater Supply Development (New Source Approval)	\$0	\$120,000	\$0	\$0	\$0
6	Grove Pond Well 6 Replacement Well	\$0	\$0	\$0	\$120,000	\$0
7	Grove Pond Well 7 Replacement Well	\$0	\$0	\$0	\$0	\$120,000
8	Portable Generator - Split with WW	\$0	\$0	\$75,000	\$0	\$0
<b>WATER ENTERPRISE TOTAL</b>		<b>\$310,000</b>	<b>\$420,000</b>	<b>\$825,000</b>	<b>\$420,000</b>	<b>\$470,000</b>

DEPARTMENT: **Wastewater**

	Item Requested	FY22	FY23	FY24	FY25	FY26
1	Inflow/ Infiltration Repairs	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000
2	WWTP Upgrades	\$3,800,000	\$0	\$3,500,000	\$0	\$3,300,000
3	Portable Generator - Split with Water	\$0	\$0	\$75,000	\$0	\$0
4	Central Ave / Main Pumping Station Valve & Piping Upgrades	\$100,000	\$0	\$0	\$0	\$0
<b>WASTEWATER ENTERPRISE TOTAL</b>		<b>\$4,650,000</b>	<b>\$750,000</b>	<b>\$4,325,000</b>	<b>\$750,000</b>	<b>\$4,050,000</b>

DEPARTMENT: **Solid Waste**

	Item Requested	FY22	FY23	FY24	FY25	FY26
1		\$0	\$0	\$0	\$0	\$0
<b>SOLID WASTE ENTERPRISE TOTAL</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

**FORM A**

**TOWN OF AYER CAPITAL BUDGET REQUEST FORM**

DEPARTMENT: **Administration**

FISCAL YEAR: **2022**

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 form.

	Item Requested	FY22	FY23	FY24	FY25	FY26
1	Main Street Decorative Street Light Upgrades	\$ 70,000		\$ 70,000		
2	DPW Hybrid SUV (Replace 2010 Ford Escape)		\$35,000			
3						
<b>Yearly Totals</b>		<b>\$70,000</b>	<b>\$35,000</b>	<b>\$70,000</b>	<b>\$0</b>	<b>\$0</b>

Department Head Signature: \_\_\_\_\_

Date: \_\_\_\_\_

*MWJ*  
*10/30/2020*

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Public Works Administration and Engineering

FISCAL YEAR: 2022

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: 2022

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. There are 6 that have structural issues and 2 have been removed for public safety. This item will replace the 8 lights that are missing or could fall over and cause injury or damage. 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: 10/30/2020

**FORM A**  
**TOWN OF AYER CAPITAL BUDGET REQUEST FORM**

DEPARTMENT: Highway

FISCAL YEAR: 2022

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	FY22	FY23	FY24	FY25	FY26
1	Road Paving	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000
2	1-Ton Pick up truck w/plow		\$55,000			
3	Salt storage facility				\$400,000	
4	Highway Garage Renovate Existing FY23 Design, FY24 Construction		\$400,000	\$4,700,000		
5	6-Wheel Dump Truck w/plow and spreader				\$250,000	
6	W Main St Bridge Replacement - Additional funds	PLACE HOLDER				
7	Barnum Rd Bridge Repairs (Design / Construction)					
<b>Yearly Totals</b>		<b>\$150,000</b>	<b>\$605,000</b>	<b>\$4,850,000</b>	<b>\$800,000</b>	<b>\$150,000</b>

Department Head Signature: \_\_\_\_\_

Date: 10/30/2022

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Highway

FISCAL YEAR: 2022

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: FY22, FY23, FY24, FY25, FY26

Item or Project: Road Paving

Explanation of Request: The Ayer DPW updated the pavement management plan in 2017. 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 (newly paved) to 100 (poor condition). Ayer streets have an average PCI of 72. A PCI of 80 is considered acceptable. The pavement management plan identified \$1.5M of roads with a PCI of 50 or lower.

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: 10-30-2020

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Highway

FISCAL YEAR: 2022

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 utilize the existing structure.

Department Head Signature:   
Date: 10-30-2020



FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Highway

FISCAL YEAR: 2022

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

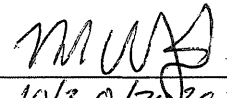
Item or Project: 1-Ton Pickup with Plow

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: 10/30/2022

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Highway

FISCAL YEAR: 2022

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

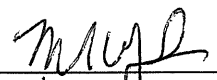
Item or Project: DPW Highway Garage Renovation

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: 10-30-2020

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Highway

FISCAL YEAR: 2022

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: 10/30/2020

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Highway

FISCAL YEAR: 2022

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: FY22

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 this 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: 10/30/2020

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Highway

FISCAL YEAR: 2022

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. Note that this project will be eligible for Small Bridge grant if approved and funded by State.

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: MassDOT Small Bridge funding will be applied for or Chapter 90 money could be used but would require deferring of road maintenance,

Department Head Signature:   
Date: 10/30/2020

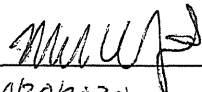
**FORM A**  
**TOWN OF AYER CAPITAL BUDGET REQUEST FORM**

DEPARTMENT: Stormwater

FISCAL YEAR: 2022

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	FY22	FY23	FY24	FY25	FY26
1	Storm Drain Upgrades	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
2	Stormwater Biofiltration/Outfall Improvements		\$50,000		\$50,000	
3	Culvert Replacements	\$50,000	\$100,000	\$50,000	\$100,000	\$50,000
4	Stormwater Asset / Master Plan Grant Match	\$40,000				
5	Balch Pond Dam Repairs Phase 2- Dam Design & Permitting Phase 3 - Dam Modifications		\$52,000	\$250,000		
<b>Yearly Totals</b>		<b>\$190,000</b>	<b>\$302,000</b>	<b>\$400,000</b>	<b>\$250,000</b>	<b>\$150,000</b>

Department Head Signature:   
Date: 10/30/2020

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Stormwater

FISCAL YEAR: 2022

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: FY22, FY23, FY24, FY25, FY26

Item or Project: Storm Drain Upgrades

Explanation of Request: Ayers storm drainage system is aging and will need repair and replacement in an organized and schedule plan. Ayer has 900 catch basins, 106 outfalls, 30 culverts and 6 miles of pipe of various size, material and age/ condition. This budget line will allow us to replace the aging infrastructure prior to paving the roads. The DPW has completed assessments of storm drains on , William, High, Willard, Myrick, Grosvenor and lower Washington St and all need repair or replacement. The DPW plans to repair drain pipes and structures prior to repaving roads.

Cost Justification: The Town Engineer has completed the GIS mapping of the stormwater system and developed a program to replace drainage on roads that will be repaved in the next 5 years. Cost Estimates were developed for drain replacements on 6 streets and the average cost, based on current bid prices, is \$100,000 per year.

Benefit to the Town: Replace aging infrastructure, reduce emergency repairs and improve drainage in Town as part of the road repaving program.

Alternative: Continue with current operations

Department Head Signature: \_\_\_\_\_

Date: 10/30/2020

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Stormwater

FISCAL YEAR: 2022

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, FY 25

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.

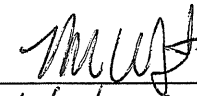
Cost Justification: The budget is based upon costs developed by the engineers in the Pond Management Study and updated based on DPW Phase 1 bid results

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 permti violations and fines.

Department Head Signature: \_\_\_\_\_

Date: \_\_\_\_\_

  
10/30/2020



FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Stormwater

FISCAL YEAR: 2022

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: FY22, FY23, FY24, FY25, FY26

Item or Project: Culvert Repair and Replacements

Explanation of Request: There are approximately 30 culverts of various size, material and age throughout the Town road system. The budget item will provide the DPW with funding to inspect, engineer, repair and replace roadway culverts before failure results in road closing. It would also fund culvert replacements on roads that are in the Town-wide paving program. Locations identified include **Groton School Road, Rosewood Ave, and Mark Street, Central Ave, Old Sandy Pond Rd, Cambridge Street and Snake Hill Road , Wright Road**

Cost Justification: The Town Engineer developed costs to repair / replace existing small culverts under town roads. This request spreads the cost of the priority culverts over the 5 year period.

Benefit to the Town: Failure of the existing culverts will result in a significant public safety issue and a more costly solution

Alternative: Wait until the culvert collapses and / or close the road.

Department Head Signature: 

Date: 10/30/2020

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Stormwater

FISCAL YEAR: 2022

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: FY22

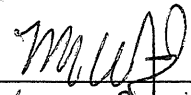
Item or Project: Stormwater Asset and Master Plan

Explanation of Request: Ayer DPW has applied for a grant to prepare a stormwater infrastructure asset management master plan. This was a high priority action item in the MVP report. It will identify and evaluate all of the stormwater systems and assets in Ayer and evaluate the stormwater systems and prioritize the improvement program.

Cost Justification: This is a 60% grant and requires a cash match and DPW in-kind services. Cost is based on a consultants proposal and grant funding requirements.

Benefit to the Town: Allows the DPW to develop capital budgets based on prioritized need.

Alternative: Continue to operate and fund the stormwater infrastructure under the General Fund

Department Head Signature:   
Date: 10-30-2022

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Stormwater

FISCAL YEAR: 2022

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, FY 24

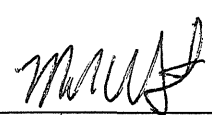
Item or Project: Balch Pond Dam Improvements

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 teh Balch Pond Dam. The Dike is on Town ROW property. Some Phase 3 work is inlcuded 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: 10/30/2020

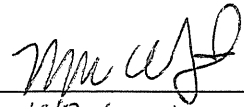
**FORM A**  
**TOWN OF AYER CAPITAL BUDGET REQUEST FORM**

DEPARTMENT: Water

FISCAL YEAR: 2022

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	FY22	FY23	FY24	FY25	FY26
1	Annual Water Main Replacements	\$250,000	\$300,000	\$300,000	\$300,000	\$350,000
2	West Main Street / Devens Connection	MassWorks Grant				
3	Utility Truck with Plow	\$60,000				
4	Washington Street Water Tank Painting			\$450,000		
5	Spec Pond Groundwater Supply Development (New Source Approval)		\$120,000			
6	Grove Pond Well 6 Replacement Well				\$120,000	
7	Grove Pond Well 7 Replacement Well					\$120,000
8	Portable Generator - Split with WW			\$75,000		
Yearly Totals		\$310,000	\$420,000	\$825,000	\$420,000	\$470,000

Department Head Signature:   
Date: 10/30/2020

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Water

FISCAL YEAR: 2022

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: , FY22, FY23, FY24, FY25, FY26

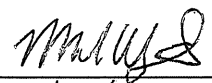
Item or Project: Annual Water Main Replacement

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 Wright Road, Williams St, Shirley St., Mechanic St and Winthrop St..

Cost Justification: The \$250,000 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: 10/30/2020

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Water

FISCAL YEAR: 2022

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: FY22


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: 10/30/2022

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Water

FISCAL YEAR: 2022

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: FY22


Item or Project: Water Main Improvement -West Main Street

Explanation of Request: Replaces a 1898 cast iron water main. This main has had multiple service leaks, a main break, has poor water quality and below required fire flow. In addition, this is a critical pipe for Ayer's emergency water supply connection to Devens System. Without this improvement, Devens cannot supply all of Ayer due to the hydraulic restriction. In addition, the water would be very rusty.

Cost Justification: The cost is based upon recent bid prices for similar projects. It should be pointed out that this project includes a RR track crossing which adds about \$100K to the cost. The DPW and OECD have applied for an infrastucture grant for this project.

Benefit to the Town: This will provide a reliable emergency connect to the Devens water system and improve water quality and fire protection in this commercial area. It will also provide for future economic development in the West Main Street Area.

Alternative: Do nothing  
Phase the project over several years  
Obtain grant funding

Department Head Signature:   
Date: 10/30/2020

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Water

FISCAL YEAR: 2022

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: 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 FY23. 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: 10/20/2020



FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Water

FISCAL YEAR: 2022

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

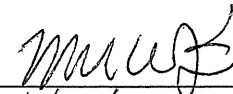
Cost Justification: The cost estimate was supplied by a groundwater hydrogeologist who regularly performs this type of work. The cost includes MassDEP permitting, additional observation wells, a prolonged pumping test, water quality samples and preparation of a report.

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: \_\_\_\_\_

  
10/30/2020

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Water

FISCAL YEAR: 2022

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, FY 26

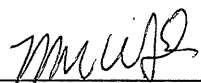
Item or Project: Grove Pond Replacement Wells

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: 10/30/2020

**FORM B**  
**TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION**

DEPARTMENT: Water

FISCAL YEAR: 2022

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: 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: \_\_\_\_\_

  
10/30/2020

**FORM A**  
**TOWN OF AYER CAPITAL BUDGET REQUEST FORM**

DEPARTMENT: Wastewater


FISCAL YEAR: 2022

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	FY22	FY23	FY24	FY25	FY26
1	Inflow/ Infiltration Repairs	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000
2	WWTP Upgrades	\$3,800,000		\$3,500,000		\$3,300,000
3	Portable Generator - Split with Water			\$75,000		
4	Central Ave / Main Pumping Station Valve & Piping Upgrades	\$1,000,000				
Yearly Totals		\$5,550,000	\$750,000	\$4,325,000	\$750,000	\$4,050,000

Department Head Signature: \_\_\_\_\_

Date: \_\_\_\_\_

  
10/30/2020

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Wastewater

FISCAL YEAR: 2022

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: FY22, FY23, FY24, FY25, FY26

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.

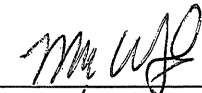
Cost Justification: The Budget is based on I/I plan developed by Arcadis Consultants based on the 2018 investigation / study.

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: \_\_\_\_\_

  
10/30/2020

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Wastewater

FISCAL YEAR: 2022

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: FY22, FY24, FY26

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: 10/30/2020

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Wastewater

FISCAL YEAR: 2022

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: FY22

Item or Project: Central Ave / Main Pump Station Valves

Explanation of Request: Replace aging control, check and isolation valves at Main Pumping Station and Central Ave Pumping Station. Valves have been leaving or failing and are costly to repair and cause disruption in service.

Cost Justification: The two large pumping stations have multiple control and check valves that are required for operation. Two of the valves have failed in the past two years. This project will upgrade the remainign valves. The price is based upon recent quotes.

Benefit to the Town: Proactive maintenace and reducing the need for emergency repairs that can impact service, operations and budget.

Alternative: Replace valvvves as they fail and increase the operating budget.

Department Head Signature: 

Date: 10-30-2020

FORM B

TOWN OF AYER CAPITAL BUDGET REQUEST BACKUP DOCUMENTATION

DEPARTMENT: Wastewater

FISCAL YEAR: 2022

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

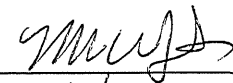
Item or Project: Trailer Mounted Emergency Generator

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: 10/30/2020