



New mains and water connections

Application form

Please complete this form and return it to us at



developer.services@thameswater.co.uk or



Thames Water, Developer Services,
Clearwater Court, Vastern Road, Reading, RG1 8DB

Guidance notes

These guidance notes explain why we need the information we are requesting. Please read them in relation to the relevant section of the application form.

We want you to choose the installer that best suits your needs and timescales. This may or may not be us. Independent 'self-lay providers' could be able to offer cost-effective terms and fit in better with your construction programme, and might also be able to install multiple utilities. You can find self-lay providers to contact for competitive quotes on the Lloyd's Register website at [lr.org/wirs](https://www.lr.org/wirs).

Please also complete this form if you wish to make a self-lay application for mains and/or new supplies.

Section B - Your details

1 Applicant details

This section should be completed with the details of the person or company responsible for paying for the quote. We will contact this person about the quote as well as issue the quote to this address unless you inform us otherwise.

2 Developer details

If the applicant is not also the developer, we will require these details.

3 Self-lay

We want you to choose the installer that best suits your needs and timescales. This may or may not be us. Independent 'self-lay providers' could be able to offer cost-effective terms and fit in better with your construction programme, and might also be able to install multiple utilities.

You can find self-lay providers to contact for competitive quotes on the Lloyd's Register website at [lr.org/wirs](https://www.lr.org/wirs).

If you choose to use a self-lay provider to lay your new main and/or service connections, please provide their details in this section.

4 Self-lay service required

Please confirm what service you would like us to provide as part of the self-lay quote and what works the self-lay provider will be carrying out. Please note that if the self-lay provider is carrying out the design, we will need to approve the design and confirm that the design proposal is satisfactory.

Please confirm if you are intending to lay any pipework within the public highway as well as including a drawing showing the pipework you intend to lay. Please note, you will need have a licence from the local highway authority to carry out work within the highway.

Section C - Site details

5 Site address

We need full details of the address to be connected, together with contact details and the planning application number.

Please note that we need full postal details of each plot to be connected before we can arrange the final connection.

6 Previous use of the site and contamination

We must safeguard against contamination of water supplied through our pipes.

The supply pipe should not be laid in, on, or pass through any areas which might cause contamination including the following:

- foul soil
- refuse and refuse chutes
- ash pits
- sewers
- drains
- cesspools or
- inspection chambers

Where the ground is classified as contaminated (e.g. reclaimed land sites), or the supply pipe is close to a petrol or oil source, an alternative to the blue MDPE plastic pipe is used. For all development sites you must carry out an intrusive site investigation and submit a comprehensive soil report when returning your application to us. This will enable us to correctly determine the type of pipe material that should be installed. You should not install any service pipe until we've verified the material as suitable.

The soil report must include all of the following:

- site history
- adjacent sites
- trial pits location plan
- trial pits depths (0.5m and 1.2m)
- soil chemical analysis

Soil chemical analysis should include all the points listed below. Any level which is equal to or greater than that shown will deem the site to be contaminated for the use of PE pipe.

TPH must be broken down into 'carbon chain lengths', 'aliphatics and aromatics', BTEX and MTBE suites and chlorinated compounds must be indicated.

TPH:

- aliphatic C5 - C12 (0.5 mg/kg)
- aromatic C5 - C12 (0.5 mg/kg)
- aliphatic C12 - C21 (not chlorinated) (10 mg/kg)
- aromatic C12 - C21 (not BTEX) (10 mg/kg)
- aliphatic C21 - C35 (500 mg/kg)
- aromatic C21 - C35 (500 mg/kg)
- chlorinated short chain aliphatic hydrocarbons (0.5 mg/kg)
- chlorinated short chain aromatic hydrocarbons (2 mg/kg)
- BTEX compounds (0.1 mg/kg)
- MTBE compounds (0.1 mg/kg)

PAH:

- naphthalene (5 mg/kg)

Phenols:

- phenols (unless present with BTEX) (5 mg/kg)
- phenols (in conjunction with BTEX) (2 mg/kg)
- phenols (chlorinated) (2 mg/kg)

7 Traffic management

Our fixed charges include traffic management costs. These cover measures needed to ensure safe working in or near the road and to minimise inconvenience for drivers and pedestrians. Examples include traffic management drawings, bus stop and parking bay suspensions, traffic lights, road or lane closures and lane rental charges.

The charge we apply will depend on whether the work is in a road, a footpath or in unmade ground. We don't include a charge if there's no digging involved.

Section D - What supplies are there already on the site?

8 Meter and account numbers

If there are any existing supplies on site please provide us with the meter number(s) and your customer account number(s). This will enable us to update our records accurately.

Section E - Your proposed works and new water connections

9 Building water

Before starting construction, it's vital that you have an approved and registered Thames Water meter fitted to your temporary building supply. If not, you may be charged 0.17 per cent of the total contract value.

The meter will record the water consumption during construction work, and you'll be charged accurately via meter readings.

Before construction work begins:

- If there is no water supply on site, you should apply for a new water connection. We'll fit a meter to the new pipe as standard to measure and bill you on consumption. For more details, see thameswater.co.uk/waterforbuildingwork.
- If there is an existing unmetered supply on site, you should apply for a new meter via section D of this form. Once an approved Thames Water meter is installed, the details will be forwarded by us to the open water market, where a retailer will be assigned to you for billing purposes.
- If there is a non-approved Thames Water meter on site, please note that we don't accept these for billing purposes, as they don't accurately measure flow. You'll need to apply for a Thames Water approved meter via section D of this form. Once an approved Thames Water meter is installed, the details will be forwarded by us to the open water market, where a retailer will be assigned to you for billing purposes.
- If there's an existing Thames Water meter on site, you should arrange to open a billing account via the open water market – see open-water.org.uk/forcustomers/find-a-retailer.

10 Supply requirements

The standard material used in new connections is Medium Density Polyethylene (MDPE) and the standard sizes for domestic properties are 25mm and 32mm (external diameter). These equate to three quarter inch and one inch (internal diameter). We will size supplies for domestic use (in both domestic dwellings and commercial premises) according to either the type of property, or on the information given in the fittings table. Supplies for new build domestic projects, commercial projects, and domestic conversions are automatically metered under the Water Industry Act 1989 and 1991 (section 47).

If you require a fire supply, you will need to provide us with the following information:

- a) The size of the fire supply (internal pipe diameter)
- b) Whether the fire supply is to have security of supply (i.e. a dual feed)
- c) The main to which the supply is to be taken
- d) The peak flow rate of the supply.

In order to determine the above information, you may need to arrange a flow and pressure test on the nominated Thames Water main(s). You may do this through your designated Fire Protection Company in accordance with advice from the local Fire Authority. All valve operations will be carried out by our Operations personnel.

11 Internal fit meters (developments requiring a shared supply pipe / communal bulk supply pipe)

The preferred method of supply is separate metered connections, with the meters externally fitted in the public highway. When a pumped system is installed to increase the flow and pressure within the property, we will provide internal fit meters to be installed by your designated plumber. Thames Water will provide a single supply (diameter to be determined accordingly) up to the property boundary and deliver the meters. The meters must be installed on the risers (after the break tank and pump) within a common area so that we will have access to read and maintain the meters. Please note that meters must not be installed above 1.5m from floor level or in ceiling voids. You will be required to provide a mechanical services schematic drawing with this application.

Where the proposed installation includes either an energy centre/common hot water system/common heating system in the property, it may not be possible to individually meter each spur.

Note - meters for hot water supplies are not used in the Thames Water area.

When you have paid for the meters, please contact our help desk who will arrange for the meters to be delivered to site.

12 Water fittings table

This information is needed to size the supply and calculate infrastructure charges where applicable.

13 Site phasing

We'll need details of any site phasing you're proposing, so that we can produce the correct design and quote for the new mains and services.

Please note that we'll add a phasing charge for the start of each new phase, to reflect additional costs associated with multiple site visits, extra works and extra fittings.

Your site plan should show details of the proposed phasing, including details of the plots for each phase. If you're applying for self-lay, each phase will be treated as its own project and therefore attract its own application fee, quote and self-lay agreement.

14 Highway information

Please provide us details of the new roads and footpaths which are to be adopted by the local authority. If you are intending to lay sustainable urban development system (SuDS) or porous roads please let us know as this will need to be taken into account when designing the new mains and services for your development.

15 Health and safety

Under the Construction Design and Management (CDM) Regulations 2015 we require the name and contact details of the CDM co-ordinator, principal contractors and a copy of your health and safety plan. Although this may not be known at application stage, we will require this information before our works commence on site.

16 Drainage details

Sewage drainage

This information is important as it determines whether any wastewater infrastructure charges are applicable. If you require information on how to apply for a new drainage/sewer connection and the fees involved, please visit our website thameswater.co.uk/developerservices.

Surface water drainage

Please tell us how you are discharging your surface water, so that we can set up the correct billing once we have laid the new connection. Surface water is rainwater that falls on to your property and runs via guttering and drainpipes into the public sewer, or water that drains into the sewers from activities, such as car washing.

Section G

17 Checklist

Please use the checklist to make sure you have included all the information we require.

Important customer information

Our duties to provide water services are contained in the Water Industry Act, which also includes powers for us to access private land in order to lay pipes and other apparatus as well as carry out work on apparatus already present. Customers should not build over any of our apparatus and should consult us if they wish to build close to such apparatus. Anything constructed over or close to our apparatus could be damaged in the event of a burst.

In addition, we must have unrestricted access to our apparatus at all times in order to comply with our statutory duties. We may therefore be obliged to take action to remove any construction that obstructs our rights of access. In the circumstances, please note that you should always check whether we have any apparatus nearby before carrying out any works.

We use HM Revenue & Customs' interpretation of VAT legislation as our guide on how to correctly charge VAT on the services we provide. Our work attracts a different rate of VAT according to the type of service we are supplying, the type of property involved and where the work is being carried out.

In most cases VAT is applicable either at standard or zero rate. However if your property type is subject to a different rate of VAT than normal we will contact you to discuss further.

Application for a quote for clean water to new development site



Please use the guidance notes to help complete all sections on the application form. Please write clearly using BLOCK CAPITALS.

Section A – Are you or Thames Water designing?

Is your request for us to (please tick):

☐ Provide a design and quote?

OR

☐ Technically assess your design and provide a quote?

Have you carried out a pre-planning enquiry with us?

Yes ☐ No ☐

If yes, what was the DS Reference number?

DS

Section B - Your details

Applicant details - see note 1

Name

Company (where applicable)

Address

Postcode:

Telephone number

Mobile number

Email

Developer details (see note 2)

Is the applicant the developer?

Yes ☐ No ☐

If 'no', please provide details of the developer

Name

Address

Postcode:

Project manager

Telephone number

Mobile number

Email

Site agent

Telephone number

Mobile number

Email

Self-lay (see note 3)

Are you planning to lay the new water main and/or the new services yourself?

Yes No

If 'no', please move to section B.

If 'yes', please provide details of self-lay company

Company registration number

Address

Postcode:

Registered company if different from above

Postcode:

Project manager/contact person

Telephone number

Mobile number

Email

If different from above please provide the:

Registered developer name

Company registration number

Registered developer address

Postcode:

Self-lay service required (see note 4)

Do you require Thames Water to design the new mains for the site?

Yes No

Do you require a quote for Thames Water to lay the service connections on site?

Yes No

Do you wish to carry out your own source of water connection?

Yes No

If 'yes', this will be subject to accreditation and risk assessment by Thames Water.

Do you wish to undertake the laying of any pipework within the public highway?

Yes No

If 'yes', please include a drawing showing the pipework you intend to lay in the public highway. Please note, you will need have a licence from the local highway authority to carry out these works.

Section C - Site details (see note 5)

Site address

Postcode:

Planning application number

Site contact name

Site telephone number

Site mobile number

Email

Is the land owner of the site different to the developer detailed in Section A?

Yes No

If 'yes', please provide the land owner details

Land owner name

Land owner company registration number

Registration address

Postcode:

Telephone number

Mobile number

Email

Will the new main need to go through third party land to reach the new development site?

Yes No

If 'yes', please provide:

Land owner name

Address

Postcode:

Telephone number

Mobile number

Email

Previous use of the site and contamination (see note 6)

Please tick the current/previous usage of your site

Existing property

Greenfield site

Brownfield site

Petrol station

Industrial use

Garages

Workshop

Other – please state

Please send us a detailed soil report so that we can determine the material of the new water distribution main and service connections.

Are you aware of any conservation or archaeological issues relating to this site?

Yes No

If 'yes', please provide details

Are there any parking bays of any kind in the vicinity of the site? (See note 6).

Yes No

If 'yes', which side of the road? (Please tick as applicable)

Same side of the road

On the other side of the road

Both sides of the road

Section D – What supplies are there already on the site? (See note 8)

Are there any existing supplies at the site?

Yes No

If 'yes' please provide your customer account number(s)

If 'no', please move to section E

Are these supplies/this supply metered?

Yes No

If 'yes', please provide the meter number(s)

If 'no', please move to section E

Do you wish to retain this/any of the supplies?

Yes No

If 'yes', which plot(s) would you like it to feed?

If 'no', do you require this or any other supplies to be disconnected?

Yes No

Please provide a plan showing the location of the existing supplies to be disconnected.

Section E – Your proposed works and new water connections

Building water (see note 9)

Are you using an existing metered supply for building water?

Yes See note 9, Guidance Notes.

No You'll need to apply for building water via the 'Building water help and advice' page on our website.

Type of property/supply - What are the new supplies to be used for?

Type of property/supply (see note 10)

Please complete the table below confirming the number of supplies required for each type of property/supply installation.

Type	Number of supplies required	Size
House		
Flat		
Site compound		
Landlord supply (i.e. cleaner's cupboard)		
Bin store		
Bike store		
Barn conversion		
Conversion of dwelling into flats		
Conversion of dwelling into more than one dwelling		
Upgrade of supply for domestic purposes		
Upgrade of supply for non-domestic purposes		
Separation of supply for domestic purposes		
Separation of supply for non-domestic purposes		
Industrial unit		
Offices		
Mobile home/portakabin		
Retail unit		
Hotel		
School		
Agricultural		
Animal trough		
Standpipe		
Sprinkler		
Irrigation		
Fire sprinkler		
Other (please specify)		

Supply requirements (see note 10)

What is the total number of domestic dwelling water supplies required?

What size of supply do you required (if known)?

What is the total number of commercial premises water supplies required?

What size of supply do you require for the commercial premises (if known)?

What is your planned date for the new connection(s) to be installed?

Fire supplies

Do you require any private fire hydrants?

Do you require any fire supplies?

Do you require a dual-feed supply?

Yes No

How many and what size of fire supplies do you require?
(e.g. 2 x 63mm)

Have you carried out a flow and pressure test?

Yes No

What is the flow rate required for the fire supply?

litres per second

Do you intend to have a storage tank?

Yes No

If 'yes', please state size

litres

Please provide a diagram showing the water main you require the fire supply to be connected to.

Internal fit meters - Developments requiring a shared supply pipe/ communal supply pipe (see note 11)

Are you intending to install a booster pump or pumped system to increase the flow an pressure within any of the properties?

Yes No

Will there be a centralised energy centre or centralised hot water system?

Yes No

Will there be a centralised heating system?

Yes No

If 'no', please move to next section - water fittings table

If 'yes', what is the proposed diameter of feed to each unit?

What is the anticipated flow rate to each unit?

Will you have facilities for storing water?

Yes No

If 'yes', what is the storage capacity in litres?

Water fittings table (see note 12)

Please complete the table below inserting the number of each relevant fitting. If you have more than eight plots, please make extra copies of this table before you start to fill it in.

	Example	Property type 1	Property type 2	Property type 3	Property type 4	Property type 5	Property type 6	Property type 7	Property type 8	Property type 9
Property type requiring a water supply (e.g. two-bed house, three-bed house, two-bed flat, three-bed flat, commercial unit, etc)	Three-bed house									
Number of property types	10									
Toilets	3									
Urinals	0									
Bidets	0									
Wash basins - bathroom or WC	3									
Domestic kitchen sinks	1									
Non-domestic kitchen sinks (e.g. in a restaurant)	0									
Domestic baths	1									
Non-domestic baths (e.g. in a care home)	0									
Showers (not including showers above baths)	1									
Domestic washing machines	1									
Domestic dishwashers	1									
Non-domestic washing machines or dishwashers (e.g. in a laundrette, or for communal use in student accommodation)	0									
Garden and garage taps	1									

About your plumbing

Please let us know if you intend to install any of the following, which may require a higher water pressure or could pose a potential health risk if appropriate measures aren't taken (e.g. if untreated water is sucked back into a supply pipe). We'll contact you if there's anything we're concerned about – this will help protect your water supply, and could reduce delays during any inspections we carry out.

Will you have any of the following?

Pump or booster to increase water pressure

Does it draw more than 12 litres per minute?

Your builder or plumber will be able to confirm the flow rate

Yes No

Douche spray (a hand-held trigger sprayer for personal hygiene)

A pipe that will be laid less than 0.75m, or more than 1.35m, below surface level

A pond or swimming pool with a capacity above 10,000 litres

Will it be filled automatically (e.g. via a ball valve) with water from our mains?

(Answer 'no' if you plan only to fill it from your own private borehole supply or using rainwater harvesting.)

Yes No

Rainwater (or any other type of water) recycling system

Will it use water from our mains as a back-up water source?

Yes No

Borehole (a private underground water supply)

Will it use water from our mains as a back-up water source?

Yes No

Site phasing (see note 13)

Will the site be phased?

Yes No

If 'yes', please provide details in the table below or a plan indicating phases

	Start date	Plots in phase	End date
Phase 1			
Phase 2			
Phase 3			

Highway information (see note 14)

Are you installing a sustainable urban development (SUDS) road?

Yes No

Are you installing porous roads?

Yes No

Are there attenuation tanks being installed?

Yes No

If you have answered 'yes' to any of the three questions above, please provide further details including plans when returning the application.

Will the roads, footways and verges on site become adopted by the local authority once the development is completed?

Yes No

Health and safety (see note 15)

Construction Design and Management Regulations

Please provide details of your CDM co-ordinator

CDM client name

CDM client address

Postcode:

CDM client telephone number

CDM client email address

Is the developer client is aware of their CDM responsibilities?

Yes No

If your project is notifiable, you will need to attach a copy of the F10 notification issued to the HSE.

Section F – Drainage details (see note 16)

Sewage drainage

What method will be used for sewage disposal on the site?

Connection to public sewer

Septic tank

Other – please state

Surface water drainage

What method are you using to discharge your surface water?

Connection to public sewer

No connection to public sewer

Part of the site only connected to the public sewer.

Information not known

If part of the sewer is connected to the public sewer please provide details of which plots/properties will not be connected.

Section G – Enclose your documents

All drawings must be of suitable detail and have a drawing reference number on them.

What we need from you to process your application:

- **Water fittings table**

Please ensure you've completed the table on pages 12.

- **Site plans**

We require a site layout drawing in 'dwg' format. The scale should be no less than 1:200 and no more than 1:500, and the plan needs to clearly showing the following:

- road layout and building lines
- the point of entry for the new supply / supplies
- any shared trenches
- any ducts to be laid in the new road for the water service pipes to be laid through
- all areas to be adopted where applicable
- phasing
- underground heating pipes
- proposed position of drainage systems
- new or existing trees
- private land (if applicable)

- **Soil analysis report**

Our key concern is to protect the water supply network, so that your water remains safe and drinkable at all times. That's why it's important your supply pipe should not be laid in, or pass through, any areas that are likely to cause contamination. These include:

- Foul soil
- Soil that's near a gas main
- Refuse or refuse chutes
- Ash pits
- Sewers
- Drains
- Cesspools or inspection chambers
- Petrol stations

If we're concerned that the site may have been contaminated at some time, our quote will require you to install 'barrier' pipework. This is a plastic pipe with a layer of aluminium sandwiched between the layers. All joints must be wrapped in aluminium tape to prevent contaminants entering the water.

If you've done work to decontaminate the land, or don't think barrier pipe is necessary, please provide a soil report as evidence.

Always check the pipe material with us before you install it. We accept no responsibility for the cost of replacing the wrong pipe material.

The soil report must be a full (not desktop) report and include all of the following:

- Site history
- Adjacent sites
- Trial pits location plan
- Trial pit depths (0.5m and 1.2m)
- Soil chemical analysis

Schematic drawing

Please provide a plumbing drawing (or 'schematic') if you require a bulk supply and/or fire supply. This will usually be prepared by your plumber and will show us whether your plans comply with the Water Regulations. The drawing must include:

- The location of any tank
- The location of any boosters
- The location of non-return valves or check valves to be fitted for each
- Information showing whether there will be a landlord supply, and what it will be used for (e.g. irrigation system, energy centre, bin store, bike store or garden tap)
- Information showing how hot water will be provided (e.g. by individual boilers, individual immersion heaters, a common hot water system or a heat interface unit)

Please provide schematics for all of the following types of connection:

- Bulk supply
- Any landlord supply that is part of a bulk supply
- Firefighting supply
- Landlord supply being used for multiple purposes (e.g. to serve a bin store and a garden tap)

Please make sure the schematics are clearly labelled to indicate which supply they relate to.

Section H – Application and design fees

You'll need to pay upfront, non-refundable application and design / checking fees, which cover our initial costs including administration and preparation of your quote and finalising the technical solution required. You can find out more about how we calculate our charges at thameswater.co.uk/newconnectioncharging

Please use the table below to calculate the total cost of the application and design / checking fees you're paying us.

		Number required	Cost
Application fee	£200		
Design fee: Please complete this section (choosing only one of the three options below) if we are designing your main.			
1–9 properties	£1,005		
10–49 properties	£2,005		
50+ properties	£4,015		
Checking fee: Please complete this section (choosing only one of the three options below) if we are checking your design.			
1–9 properties	£155		
10–49 properties	£310		
50+ properties	£615		
* When calculating the design fee, please take into account all of the supplies you have requested on page 10: the number of houses, flats, commercial units and industrial units to be connected, plus the number of firefighting systems, landlord supplies and agricultural supplies.		Total	
		+ 20% VAT	
		Total cost	

Section I – How to pay

You can pay using the following methods:

BACS or CHAPS: Please pay to the Thames Water Utilities Ltd account, quoting the reference number starting 'DS' and using the following information:

Sort Code: 60-00-01

Bank Account: 90478703

For international payments, the IBAN number is GB96NWBK60000190478703

For CHAPS payments, the BIC number is NWBKGB2L

Please note that payments can get lost if you don't use the 'DS' reference number.

Credit or debit card: Please tell us the following details, and we'll call to arrange payment:

Telephone number

Name of card holder

Please note that we don't accept American Express.

I will pay the non-refundable application and design fees by:

Cheque: Please make payable to Thames Water Utilities Ltd.

BACS or CHAPS

Debit or credit card

Cheque

If you're emailing your form, once we receive your application we'll respond to you with a DS reference number which you should quote when making your payment. If you're posting your form, you can attach a cheque to it directly.

Do you need us to provide you with a pro forma invoice for the application and design fees?

Some companies need us to issue an invoice before their accounts department can pay the upfront fees due. If you ask for a pro forma invoice, we'll send it within seven calendar days of receiving your application form. This will increase the total amount of time it takes to process your application.

No, I don't need a pro forma invoice

Yes, send me a pro forma invoice

If yes, please complete all the details below and a pro forma will be emailed to you. Missing details will delay your pro forma being sent.

Name

Address line 1

Address line 2

Town

County

Postcode

Email

Section J – Declaration

I confirm to the best of my knowledge that the information in this application is complete and correct.

Your signature

Your full name in BLOCK CAPITALS

Your role in the company or job title (where applicable)

Date

Please note that Thames Water reserves the right not to make the final connection to its water network. Illegally connecting to the water network is a criminal offence.

Please return the completed form making sure you supply any additional information and return to us one of the following ways:

- By email to developer.services@thameswater.co.uk
- By post to Thames Water, Developer Services, Clearwater Court, Vastern Road, Reading, Berkshire RG1 8DB.

Please ensure that you include copies of the required plans with your application.

Section K – How we'll use this information

We'll use the information you give on this application form, and potentially share it with our delivery partners, to provide the service you've requested.

This could include contacting you to discuss your application and/or provide more details, visiting the site where work needs to be carried out, and invoicing you when appropriate. Your feedback is important to us, so we may also use the information to ask for your feedback on how we can improve our performance.

We won't use this information for marketing purposes without contacting you to seek your consent.

You can find Thames Water's privacy policy at thameswater.co.uk/Legal/Privacy.



Get in touch with us

For enquiries regarding this application or any other questions relating to your building or development work please contact us on:



thameswater.co.uk/developerservices



developer.services@thameswater.co.uk



0800 009 3921

Monday – Friday, 8am – 5pm



Thames Water, Developer Services,
Clearwater Court, Vastern Road, Reading,
Berkshire RG1 8DB

This leaflet can be supplied in braille
or audio-tape upon request.