

Determination 2009/14

Whether a building in close proximity to a dam is an appurtenant structure, and which regulatory body has jurisdiction in respect of a building consent to re-roof the building

1 The matter to be determined

1.1 This is a determination under Part 3 Subpart 1 of the Building Act 2004¹ (“the Act”) made under due authorisation by me, John Gardiner, Manager Determinations, Department of Building and Housing (“the Department”), for and on behalf of the Chief Executive of the Department.

1.2 The parties are:

- the applicant is the Environment Waikato (“the regional authority”) carrying out its duties and functions as a regional authority and a building consent authority.
- the Waipa District Council (“the territorial authority”) carrying out its duties and functions as a territorial authority and a building consent authority.
- the owner of the dam and building, Mighty River Power (“the owner”)

1.3 I take the view that the matter for determination in terms of sections 177(f) and 188² is the division of responsibilities between the regional authority and the territorial authority in the exercise of their powers in relation to dams.

1.4 The regional authority has set out the following matters that it considers to be relevant to its application:

1. Whether or not the structure(s), which are the subject of the determination, are part of a “large dam” under the Act.

¹ The Building Act 2004 is available from the Department’s website at www.dbh.govt.nz.

² In this determination, unless otherwise stated, references to sections are to sections of the Act and references to clauses are to clauses of the Building Code.

2. Whether or not the structure(s), which are the subject of the determination, are “appurtenant structures” under the Act.
 3. Whether the regional authority and/or the territorial authority have jurisdiction for the structure(s) under the Act.
 4. Whether the compliance schedule items in the structure(s) are dependent on who has jurisdiction.
- 1.5 In making my decision, I have considered the submissions of the parties and the other evidence in this matter.

2 The building work

- 2.1 The building work in question consists of the re-roofing of a powerhouse/office building and a workshop building (together called “the buildings”) situated at the Karapiro Dam.
- 2.2 The powerhouse/office building is constructed on top of the main dam foundations and contains generators, a control room, associated offices and miscellaneous rooms. The building is stand-alone, apart from where it is attached to the penstocks.
- 2.3 The workshop is constructed on top of the main dam foundations and was designed to service plant and equipment associated with the functioning of the dam. The building also has a 25-tonne gantry crane that could be used to lift plant and machinery.

3. Background

- 3.1 On 30 June 2008, the regional authority was accredited and registered as a building consent authority in terms of section 191 and assumed responsibility for the building control for dams and their appurtenant structures in its area.
- 3.2 The owner emailed the regional authority on 4 September 2008, stating that it intended to replace the roofing on the buildings with aluminium cladding on timber framing.
- 3.3 The regional authority emailed the Department on 4 September 2008, enquiring whether the buildings were appurtenant structures as defined in the Act.
- 3.4 The Department responded by email on 8 September 2008, and stated that it could not give a definitive response to that query and suggested that section 14(5) be used to work through the issue. It was also noted that as the workshop had a 25-tonne gantry crane, which could be used to lift pipework, valves and the like, this could mean that the building was integral to the proper functioning of the dam.
- 3.5 A site meeting was held at the dam site on 2 October 2008, attended by representatives of the regional authority, the owner, and the territorial authority. According to the regional authority, the owner’s representative confirmed that the functioning of the dam was not dependent on the buildings. There was also

disagreement between the regional authority and the territorial authority as to whether the buildings were appurtenant structures.

- 3.6 Following the site visit, the territorial authority wrote to the regional authority on 9 October 2008, noting that the visit had shown that the buildings “were constructed on the base of the dam and as part of the entire dam complex”. Accordingly the territorial authority considered that the buildings were “appurtenant structures” associated with the dam and they were therefore within the jurisdiction of the regional authority.
- 3.7 On 13 October 2008, the regional authority wrote to the owner stating that it could not accept the owner’s application for a building consent for the re-roofing of the buildings on the basis that the buildings were not appurtenant structures.
- 3.8 The owner responded by email on 20 October 2008, attaching an extract from a Karapiro Performance Parameter Review Report and drawing showing a cross-section through the dam. The owner noted that, while the powerhouse would provide some buttressing to the intake structure, the powerhouse itself had not been considered in the seismic analysis of the dam. Accordingly, the powerhouse could not be considered to be an appurtenant structure in this instance.
- 3.9 The application for a determination was received by the Department on 12 November 2008.

4. The submissions

- 4.1 In a submission with the application dated 4 November 2008, the regional authority set out the background to the dispute and listed the matters that it wished to be determined. The regional authority noted that, based on the definitions of “dam” and “appurtenant structure” set out in the Act, the buildings could possibly be regarded as being appurtenant structures. However, the words of the definition in the Act “integral to the proper functioning” of a dam are open to interpretation.
- 4.2 The regional authority referred to the definition of “appurtenant structures” contained in the “Building Consent Authority Guide for Regional Authorities”, and noted that the definition does not have regard as to whether the structure is “integral to the proper functioning” of a dam. As such, the definition could not be relied on to clarify the definition of an appurtenant structure. The regional authority was of the opinion that its role should be restricted to those aspects “which might influence structural stability of the dam and/or appurtenant structures”.
- 4.3 Regarding the compliance schedules for the site, the regional authority submitted that consideration needed to be taken of the fact that the current warrant of fitness covers all the buildings on the site. If the buildings were separately categorised, this could lead to different authorities having jurisdiction over the compliance schedule.
- 4.4 The regional authority forwarded copies of:
- some plans showing the proposed re-roofing details
 - the cross section through the dam

- the correspondence between the parties
- a set of photographs showing the exterior and interior of the buildings.

4.5 The owner wrote to the Department on 18 November 2008, stating that ‘the Powerhouse could be completely removed without affecting in any way the structural ability of the Dam to impound water’. Nor would the removal affect the facility of the dam to ‘pass water during a flood’ and the powerhouse roof structure did not contribute to the ‘ability of the reservoir to be dewatered to a safe level in an emergency’. Accordingly, the owner was of the opinion that the powerhouse was not an appurtenant structure integral to the proper functioning of the dam.

5 The legislation and other relevant documents

5.1 The relevant provisions of the Act are:

7 Interpretation

In this Act, unless the context otherwise requires,—

appurtenant structure, in relation to a dam, means a structure that is integral to the proper functioning of the dam

dam—

- (a) means an artificial barrier ,and its appurtenant structures that—
 - (i) is constructed to hold back water or other fluid under constant pressure so as to form a reservoir; and
 - (ii) is used for storage, control, or diversion of water or other fluid.
- (b) includes—
 - (i) a flood control dam; and
 - (ii) a natural feature that has been significantly modified to function as a dam; and
 - (iii) a canal; but
- (c) Does not include a stopbank designed to control flood- waters

large dam means a dam that retains 3 or more metres depth, and holds 20000 or more cubic metres volume, of water or other fluid

14 Roles of building consent authorities, territorial authorities, and regional authorities in relation to dams

- (1) The regional authority is responsible for performing functions under this Act relating to the building of a dam.
- (2) If a building includes a dam
 - (a) the regional authority is responsible for performing functions under this Act relating to the dam, and
 - (b) the building consent authority and the territorial authority are responsible for performing functions under this Act relating to parts of the building that are not a dam.
- (5) The building consent authority and territorial authority must do everything reasonably practicable to liaise with the regional authority in performing functions or duties, or exercising powers, in relation to a building that includes a dam.

150 Owner of dam must supply annual dam compliance schedule

- (1) An owner of a dam for which a dam safety assurance programme has been approved, or is deemed to have been approved, must supply to the regional authority a dam compliance certificate in accordance with subsection (2).

450 When territorial authority may and must act as building consent authority during transition to this Act

- (1) A territorial authority may, during the period specified in subsection (3), act as a building consent authority (including in relation to a dam) even though the territorial authority has yet to be registered under section 191.
- (2) [Repealed]
- (3) The period is the period that—
- (a) begins on the date of commencement of Part 2; and
 - (b) ends on the earlier of—
 - (i) the date on which an application for registration by the territorial authority under section 191 is granted or refused; or
 - (ii) 31 March 2009
- (3A) A territorial authority that is registered under section 191 must, until the time specified in subsection (3B), act as a building consent authority in relation to a dam within the territorial authority's district.
- (3B) The time is the earlier of the following:
- (a) the close of the day before the date specified in subsection (3)(b)(ii); and
 - (b) the time at which the regional authority whose region includes the territorial authority's district—
 - (i) is registered under section 191; or
 - (ii) transfers its functions as a building consent authority in relation to dams in that district to another regional authority, under subpart 4 of Part 3 of this Act or subpart 2 of Part 3 of the Local Government Act 2002.
- (3C) If a territorial authority acts as a building consent authority under subsection (1) or (3A),—
- (a) the territorial authority must be taken to have all the functions, duties, and powers of a building consent authority under this Act; and
 - (b) this Act applies with all necessary modifications.
- (3D) The Governor-General may, by Order in Council, before the date specified in subsection (3)(b)(ii), specify a later date in substitution for that date.

5.2 The relevant provisions of the Building (Dam Safety) Regulations 2008 are:

3 Interpretation

- (2) Terms or expressions used and not defined in these regulations, but defined in the Act have, in these regulations, the same meaning as they have in the Act.

8 Criteria and standards for dam safety assurance programme

- (3) Every dam safety assurance programme must contain the following:
- (e) requirements for inspection of appurtenant structures...

- 5.3 The relevant technical definition of the “Dam Safety Scheme: Guidance for regional authorities and owners of large dams” (“the guidance document”) issued by the Department is:

Appurtenant structure(s)- means a structure that is integral to the proper functioning of the dam. This might include but are not limited to, such facilities as intake towers, powerhouse structures, tunnels, canals, penstocks, low-level outlets, surge tanks and towers, gate hoist mechanisms and their supporting structures, and all critical water control and release facilities. Appurtenant structure(s) also include mechanical and electrical control and standby power supply equipment located in powerhouses or in remote control centres.

6. The draft determination

- 6.1 The draft determination was sent to the parties for comment on 24 December 2008.
- 6.2 The owner accepted the draft without comment, but neither the regional authority nor the territorial authority accepted it.
- 6.3 In a submission dated 15 January 2009, the territorial authority considered that the purpose of the powerhouse/office building ‘is to provide protection from the elements to the equipment that is ‘integral’ to the running of the dam, and therefore the building or structure should be considered as an appurtenant structure.’ Alternatively, if the dam could safely operate as a dam without the equipment in the power house but not generate electricity, then the structure should not be considered ‘integral’ to the operation of the dam. As such the structure could not be considered as an “appurtenant structure’.
- 6.4 In a letter to the Department dated 20 January 2009, but not received by the Department until 20 February 2009, the regional authority noted that its concerns were the same as those submitted by the territorial authority and that it endorsed the submission.
- 6.5 I have noted the concerns expressed by the territorial authority and, as expressed within the determination, I have concluded the second interpretation put forward by the territorial authority in its submission is the correct approach to this situation and context.

7. Discussion

7.1 The buildings

- 7.1.1 As described in paragraph 5.3, the guidance document states that a powerhouse structure ‘might’ be a structure that is ‘integral to the proper functioning of the dam’. I note at this point that this is a document issued for guidance only and is not a Compliance Document.
- 7.1.2 The regional authority has accepted that the definition of the phrase ‘integral to the proper functioning’ of a dam was open to interpretation. The regional authority goes on to say that a structure should be considered in light of those aspects ‘which might influence the structural stability of the dam and/or appurtenant structures’.

- 7.1.3 The owner's approach to the buildings was in terms of their effect on the impounding of water, the passing of water in a flood, and dewatering in an emergency.
- 7.1.4 I accept that I have to consider the buildings in terms of the definition given to appurtenant structures in the Act, which relates to the 'proper functioning of the dam'. As regards the workshop, I note that this type of building is not included in the appurtenant structures definition set out in the guidance document. Nor do I believe that it is associated with the 'proper functioning' of the dam. While noting that it does contain a 25-tonne gantry, I consider that this would be used only to move equipment within the building and has no role relating to the functioning of the dam. Accordingly, I do not consider the workshop in this situation/context to be an appurtenant structure.
- 7.1.5 The powerhouse/office building is in a different category from the workshop inasmuch as it contains equipment that is in place to ensure the proper functioning of the dam. In addition the term 'powerhouse structure' is included as an appurtenant structure in the guidance document. However, in my opinion, in terms of the Act, while the equipment that it contains is 'integral to the running of the dam', the building itself is not. As it is a stand-alone building, if its external envelope was removed, the dam would still continue to function as a dam. I therefore accept that the powerhouse/office building in this situation/context is also not an appurtenant structure.
- 7.1.6 Having found that the buildings are not appurtenant structures, I must now consider the question of jurisdiction. Section 14(2)(b) states that a territorial authority is responsible for performing functions under the Act relating to parts of a building that are not a dam. As non-appurtenant structures, I accept that the buildings are not part of the dam itself. Consequently, in terms of section 14(2)(b), the buildings fall within the jurisdiction of the territorial authority.

7.2 The dam compliance certificate

- 7.2.1 Section 150 states that a dam owner must supply an annual dam safety compliance certificate to the regional authority. However, section 14(2) states that the territorial authority is responsible for performing functions under the Act relating to parts of a building that is not a dam.
- 7.2.2 In this case, as I have found that the buildings are not a dam or an appurtenant structure, it would appear that no dam compliance schedule for the two buildings (excluding some of the equipment within the powerhouse) needs to be provided. However, I accept that, at least within the powerhouse/office building, there will be building elements relating to the dam itself that require inclusion in a dam compliance schedule.
- 7.2.3 There are systems and equipment within both buildings that may be 'specified systems' under Schedule 1 of the Building (Specified Systems, Change of Use, and Earthquake-prone Buildings) Regulations 2005. By virtue of section 14(2)(b), territorial authority is responsible for the compliance schedule and building warrant of fitness.

- 7.2.4 Section 14(5) emphasises the need for liaison between regional and territorial authorities. I would therefore suggest that the regional authority and the territorial authority negotiate to provide a practical approach to the question of responsibility for the systems and equipment in the buildings. This might involve the regional authority taking over the whole process or the territorial authority providing assistance in regard to those buildings that are not part of the dam.

8. The relative status of the Dam Safety Scheme

- 8.1 As noted in paragraph 5.3, the guidance document issued by the Department has an extended definition for ‘appurtenant structures’. However, I also note that this document is issued by the Department for guidance only and the Department notes that it ‘should not be used to establish all the requirements of the Act on its own’.
- 8.2 In my opinion, as set out in Clauses 3(2) and 8(3) of the Building (Dam Safety) Regulations 2008 (refer paragraph 5.2), the meaning of an appurtenant structures in the Regulation has the same meaning as that set out in the Act. That means, in relation to a dam, an appurtenant structure is ‘a structure that is integral to the proper functioning of the dam’.
- 8.3 While the definition of appurtenant structures in the guidance document commences with this meaning, it goes on to list a series of facilities that ‘might’ be included in the definition. While this extended meaning may be pertinent to dam safety, in the context of this determination, I am restricted to a narrower interpretation of the requirements under the Act rather than to that espoused in the guidance document. This is the approach that I have taken in paragraph 7.1.
- 8.4 I am therefore of the opinion that the meaning of appurtenant structures, which has been extended in the guidance document, is not relevant to this situation.

9. Conclusions

- 9.1 In terms of the matters raised by the regional authority (as set out in paragraph 1.4), I have found that:
1. the buildings are not part of a ‘large dam’ under the Act
 2. the buildings are not ‘appurtenant structures’ under the Act
 3. the territorial authority has jurisdiction for the buildings under the Act
 4. any equipment within the buildings that is integral to the running of the dam should be included in the dam safety assurance programme and in the annual dam compliance certificate that must be provided to the regional authority (if the dam has been classified as ‘medium’ or ‘high’ using prescribed criteria under sections 135 and 137)
 5. any equipment or systems that are not integral to the dam, but which are ‘specified systems’, require a compliance schedule and a building warrant of fitness, which must be provided by the territorial authority

6. the question of the jurisdiction over the items in the buildings should be subject to negotiation between the regional authority and the territorial authority.

9.2 I emphasise that the conclusions reached in this determination relate only to the buildings in question. In other circumstances, similar types of buildings could be considered to be appurtenant structures that would place them within the ambit of a regional authority's responsibilities.

10 The decision

10.1 In accordance with section 188 I hereby determine that the buildings are not appurtenant structures and therefore fall within the jurisdiction of the territorial authority.

Signed for and on behalf of the Chief Executive of the Department of Building and Housing on 6 March 2009.

John Gardiner
Manager Determinations