Received: from zephyr.water.ca.gov
by dfg.ca.gov; Wed, 16 Feb 2000 15:59:06 -0800
Received: from conveyance.water.ca.gov (conveyance.water.ca.gov [136.2
00.149.161])
by zephyr.water.ca.gov (8.9.3/8.9.3) with ESMTP id PAA00078
for <dodenwel@hq.dfg.ca.gov>; Wed, 16 Feb 2000 15:53:06 -0800
(PST)
Received: from bdoc84 (localhost [127.0.0.1])
by conveyance.water.ca.gov (8.9.3+Sun/8.9.1) with ESMTP id PAA
18279
for <dodenwel@hq.dfg.ca.gov>; Wed, 16 Feb 2000 15:53:15 -0800
(PST)
Message-Id: <4.2.2.20000216155930.00ae7ae0@conveyance>
X-Sender: ronott@conveyance
X-Mailer: QUALCOMM Windows Eudora Pro Version 4.2.2
Date: Wed, 16 Feb 2000 16:01:07 -0800
To: dodenwel@hq.dfg.ca.gov
From: Ron Ott <ronott@water.ca.gov>
Subject: Central Intake
Mime-Version: 1.0
Content-Type: text/plain; charset="iso-8859-1"; format=flowed
Content-Transfer-Encoding: quoted-printable

Central Delta intake

The goal of this proposal is to provide a Stage 1 alternative that wou
ld do=
=20
the following:

=B7 Reduce direct and indirect impacts on fisheries from the Sta
te and=
=20
Federal projects;
=B7 provide improved water quality for Central and South Delta w
ater=
=20
users from a screened intake; and
=B7 provide improved water quality for Delta water users, partic
ularly=
=20
urban users.

This project would keep all diversions entirely in the Delta, thus=20
protecting preserving the concept of the Delta pool; it would provide=
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direct water quality benefits to both in-Delta and export users, and w
ould=

=20
improve flexibility of operations to improve water supply reliability
and=20
environmental protections.

The concept is to provide one or more small screened intakes in or aro
und=20
MacDonald Island, or in that general vicinity. The project could be p
hased=
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and could start with a single intake that would allow about 1000 cfs o
f=20
capacity. Additional intakes could be added with time; these could be
in=20
different locations and of different sizes with different screen=20
configurations (different screen configurations would allow testing of
=20
different screen designs).

There are several advantages to intakes at this location. One is wate
r=20
quality, as MWQI and other field and model data indicate that water qu
ality=
=20
in this area is significantly better than that found near Clifton Cour
t=20
Forebay and Tracy PP, particularly in the case of salinity but probabl
y in=
=20
the case of organic carbon as well. Consequently, use of the location
=20
could substantially improve water quality, especially in dry=20
periods. Second, the area is heavily influenced by tides and would al
low=20
positive screens with substantial transport flows across the screens,
thus=
=20
allowing the likelihood of better protection. The intakes could be=20
operated on the tides with gates behind the screens to prevent backflo
w;=20
this would mean there would be no diversions on ebb tides, so that fis
h,=20
eggs and larvae passing the screen on the outgoing tide (toward the we
stern=
=20
Delta and Bay) would pass without hindrance.

Operational criteria for the intake would be developed to allow more=2

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flexibility and fish protection than currently exist. Issues such as=
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spring diversions during migration and spawning periods can be taken i
nto=20
account to ensure better protection than currently exists with Clifton
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Court Forebay and Tracy pump plants. The operation of this intake wou
ld=20
need to protect any fish that could be in the vicinity including resid
ent=20
and anadromous fish native to the Delta and to all rivers tributary to
 the=
=20
Delta. It is assumed that this project could be implemented in a way
that=
=20
resolves impacts on these specific fishery resources. This is an item
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needs resolution before this project can be implemented.

Diversions from the intakes would be transported off the island and th
rough=
=20
a siphon to Whiskey Slough, which would be enlarged as needed and conn
ected=
=20
to Trapper Slough (also modified as needed). They could also be=20
transported via the chain of lakes. Current diversion points on these
=20
sloughs would continue to be used (the diversions would thus be screen
ed=20
and have improved water quality). The drain into Trapper Slough would
 be=20
rediverted to another location, unless it does not significantly affec
t=20
water quality. A siphon from Trapper Slough to North or Victoria Cana
l=20
would pass under Middle River; North or Victoria Canal would be isolat
ed=20
and modified as necessary, with the water then transported directly to
=20
Tracy and the Banks Pump Plant through new facilities (Clifton Court w
ould=
=20
be avoided unless it is also screened).

This arrangement could be connected directly to Delta island=20
storage. Water stored on a nearby Delta island could be discharged=20
directly into this facility during periods when pumping is limited and
=20
transported to Tracy for export to the DMC for Ag export use or for a=
20
recirculation scheme. This would require a separation of the DMC and
the=20
State Aqueduct at O'Neil Forebay to ensure that water quality for urba
n=20
areas is not mixed and degraded by the water stored on the islands (TO
C and=
=20
other constituents of concern). It would also remove the need to dive
rt,=20
release and redivert water stored on islands, improving fish protectio
n and=
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possibly allowing improved efficiency of such projects.

The intake could also be used do provide water to South Delta and Cent
ral=20
Delta water users. These users would then have the advantages of high
er=20
quality, screened water. This intake is also expected to improve the=
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quality of drainage water returned to the Delta.

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